ORIGINAL

# UNITED STATES OF AMERICA

# NUCLEAR REGULATORY COMMISSION

**Title:** BRIEFING ON SELECTED ISSUES RELATED TO PROPOSED RESTART OF MILLSTONE UNIT 3 -- PUBLIC MEETING

**Location:** Rockville, Maryland

**Date:** Friday, May 1, 1998

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1 UNITED STATES OF AMERICA

2 NUCLEAR REGULATORY COMMISSION

3 ***

4 BRIEFING ON SELECTED ISSUES RELATED

5 TO PROPOSED RESTART OF MILLSTONE UNIT 3

6 ***

7 PUBLIC MEETING

8 ***

9

10 Nuclear Regulatory Commission

11 Commission Briefing Room

12 Room 1F-16

13 One White Flint North

14 11555 Rockville Pike

15 Rockville, Maryland

16

17 Friday, May 1, 1998

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19 The Commission met in open session, pursuant to

20 notice, at 8:30 a.m., the Honorable SHIRLEY A. JACKSON,

21 Chairman of the Commission, presiding.

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1 COMMISSIONERS PRESENT:

2 SHIRLEY A. JACKSON, Chairman

3 GRETA J. DICUS, Commissioner

4 NILS J. DIAZ, Commissioner

5 EDWARD McGAFFIGAN, JR., Commissioner

6

7 STAFF AND PRESENTERS SEATED AT THE COMMISSION TABLE:

8 MIKE MORRIS, Chairman, President and CEO,

9 Northeast Utilities

10 BRUCE KENYON, President and CEO, Northeast Nuclear

11 Energy Company

12 MIKE BROTHERS, Vice President, Nuclear Operations

13 MARTIN BOWLING, Vice President, Technical Services

14 JOHN STREETER, Vice President, Nuclear Oversight

15 DAVID AMERINE, Vice President, Human Services

16 JOHN GRIFFIN, Deputy Team Leader, Little Harbor

17 Consultants

18 JOHN BECK, President, Little Harbor Consultants

19 JOHN GRIFFIN, Deputy Team Leader

20 BILLIE GARDE, Consultant

21 THOMAS SHERIDAN, First Selectman

22 JOHN MARKOWICZ, Vice Chairman

23 KEVIN A. MCCARTHY, Director, Air Quality

24 Monitoring and Radiation

25

1 STAFF AND PRESENTERS SEATED AT THE COMMISSION TABLE:
2 (continued)
3 DEBORAH KATZ, President, Citizens' Awareness
4 Network
5 ROSEMARY BASSILAKIS
6 SUSAN PERRY-LUXTON, Citizens Regulatory Commission
7
8 CAPTAIN GUY MENDENHALL, Citizens Regulatory
9 Commission
10 PAUL BLANCHE, Consultant
11 L. JOSEPH CALLAN, EDO
12 SAMUEL J. COLLINS, Director, NRR
13 DR. WILLIAM TRAVERS, Director, Special Projects
14 Office, NRR
15 WAYNE LANNING, Deputy Director for Inspections,
16 SPO, NRR
17 PHILLIP McKEE, Deputy Director for Licensing and
18 Oversight, SPO, NRR
19 EUGENE IMBRO, Deputy Director for ICAVP, SPO, NRR
20 DAVID A. LOCHBAUM, Nuclear Safety Engineer
21 HARRY BLANK, Millstone
22 DAVE COLLINS, Millstone
23 GARY F. VERDONE, Millstone
24 MIKE MEEHAN, Millstone
25 JOSEPH M. AMARELLO, Spokesperson

1 STAFF AND PRESENTERS SEATED AT THE COMMISSION TABLE:
2 (continued)
3 JERILYN M. DUEFRENE, Secretary
4 RICHARD L. DeBERNARDO, JR., Treasurer
5 DONA L. HARRINGTON-BURNS, Member
6 DONALD W. DEL CORE, SR., Millstone
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1 P R O C E E D I N G S

2 [8:30 a.m.]

3 CHAIRMAN JACKSON: Good morning, ladies and
4 gentlemen.

5 This meeting is the first of what is anticipated
6 will be two Commission meetings to assess readiness for
7 restart of the Millstone Unit 3 plant.

8 The NRC staff has provided the Commission their
9 assessment of three issues related to the restart assessment
10 plan for Millstone Unit 3. One is licensee progress to
11 establish a safety-conscious work environment and an
12 effective employee concerns program; two, licensee
13 improvements to oversight and quality assurance; and three,
14 licensee resolution of non-restart-related issues and items,
15 commonly called backlog management. The staff has evaluated
16 these issues to be acceptable to support restart of Unit 3.

17 The Commission will hear presentations today from
18 Northeast Utilities or Northeast Nuclear. The contractor
19 associated with the licensee's employee concerns program,
20 Little Harbor Consultants, public officials, and interest
21 groups and the NRC staff. This will be a long day and in
22 the interest of maintaining our schedule, I will keep my
23 opening comments short, but to provide background, Millstone
24 Unit 1 has been shutdown for over 29 months, Units 2 and 3
25 for approximately 26 months. All three of the Millstone

1 units were placed on the NRC's watchlist in January 1996.
2 The units were recategorized as Category 3 plants in June
3 1996. This action necessitates Commission approval for
4 restart of each of the units.
5 This Commission meeting is the sixth quarterly
6 meeting to assess the status of activities at the site. The
7 Commission is interested in comments, evaluations and
8 conclusions from all participants today to gage how the
9 licensee has addressed these three areas. Let me reiterate
10 them again: one, employee concerns and safety conscious
11 work environment; two, oversight and quality assurance; and
12 three, backlog management.
13 I remind everyone that the NRC staff will be
14 developing another Commission paper that will provide the
15 staff's assessment of the remaining major issues for restart
16 readiness, and another Commission meeting will follow
17 shortly after that paper is completed.
18 The Commission, with much help from the Office of
19 the Secretary, has planned a schedule to maximize discussion
20 of the issues and to obtain a fair hearing from those on all
21 sides of these issues. We look forward to a lively and
22 informative meeting, and I ask for everyone's patience and
23 goodwill today.
24 Now, we have made, although this room is not
25 filled, the NRC auditorium available as an overflow room

1 where you can observe this meeting if you desire, but I ask
2 to please maintain room in the aisles.
3 Copies of the presentation material are available
4 at the entrances to this meeting, and unless my colleagues
5 have any opening comments, Mr. Morris, please proceed.
6 MR. MORRIS: Thank you, Dr. Jackson. Good
7 morning, fellow Commissioners. We are happy to be here
8 today to address in a number of ways the issues that remain
9 for us at Millstone station. Most importantly, we will
10 focus in on the three issues that you have asked us to do,
11 and hopefully bring closure to some of those issues. The
12 first one, the safety conscious work environment, has been a
13 very interesting journey, to say the least. We started out,
14 I would say, without a clear definition in our own minds of
15 what it was that we hoped that we could accomplish.
16 You and your colleagues asked that we put date to
17 that endeavor as best that we could, and we have tried to do
18 that and we continue to be very satisfied with the
19 statistics that we see.
20 As you know, there are a number of outside people
21 who are also looking at the safety conscious work
22 environment, including the consultant retained by a company
23 at the Commission's direction, and today, we're very happy
24 and somewhat humbled to tell you that our own employee
25 concerns oversight program has judged that the safety

1 conscious work environment is there. At Millstone Station,
2 our oversight group has done the same, as has the Nuclear
3 Safety Assessment Board, as, of course, has the Little
4 Harbor Consultant Group, and the end and conclusion of the
5 40,001 inspection by the NRC Special Projects Staff said
6 pretty much the same thing, and we're very encouraged by all
7 of that.
8 Most importantly, the data continues to support
9 that, and we're pleased with that, and I think at the bottom
10 line, and I know those of you who have had an opportunity to
11 come to the station also understand very clearly that the
12 people at the station believe it, which I think is
13 critically important for all of us if we're going to be
14 successful in that environment.
15 We don't see that, however, as an issue that is
16 ended. It's an issue where we will continue to learn,
17 continue to grow, and continue, we hope, to set standards
18 for the rest of the industry in a very important working
19 environment relationship between the management and the
20 people at a nuclear station.
21 On the management oversight and quality assurance,
22 we, of course, have done a lot of work in that arena as
23 well, trying to demonstrate that we have a solid team in
24 place, a well-trained team in place, and most importantly,
25 an empowered team in place, and I think when I look at

1 management oversight and I look at the quality assurance
2 program, I'm always interested in seeing the dedication of
3 the management of the plant and the line organizations to
4 invite and encourage the participation of oversight, and
5 we're beginning to see that in a very proactive way at the
6 station and I think that that's a very positive indication.
7 And here, too, the data is beginning to indicate that there
8 is substantial support for that. The NASB isn't the only
9 outside organization that has evaluated our oversight
10 activity as being adequate and performing their job, and
11 again, we're satisfied with that.
12 As to the deferred items management list, we have
13 taken your lead and categorized that list in every
14 imaginable way that we could, most importantly, of course,
15 looking at safety, and then categorizing by age,
16 categorizing those in an order, a sequential order that we
17 think we can continue to work off, and we do work off those
18 issues even though we believe that they are deferrable to a
19 backlog kind of status as we go forward, and we'll continue
20 to do that every day as we move forward.
21 As you know, in response to something that you had
22 asked us to do, we have put together what we call the 1998
23 2000 performance plan wherein we've made commitments to
24 update the staff and the Commission as we work that backlog
25 list down to get it in the kind of shape that we would all

1 be very happy with. I think, as Mike Brothers goes through
2 that list for us, you'll see that we have quite a bit of
3 understanding of where we stand in that regard, and we
4 believe that the criteria that we've used to determine
5 whether an item is deferrable or not is solid and we hope
6 that your staff concurs with that as well.
7 So with that small backdrop, let me turn the
8 program over to Bruce Kenyon and his team to take us through
9 a very eventful and data-filled presentation.
10 Thank you.
11 MR. KENYON: Good morning. I'm pleased to have
12 the opportunity to speak to you in terms of the readiness of
13 Unit 3 --
14 CHAIRMAN JACKSON: Can you speak a little more
15 into the microphone? Is it on?
16 MR. KENYON: With regard to the readiness of Unit
17 3 in terms of the selected issues that you've identified for
18 this morning.
19 The agenda for the meeting, our portion of the
20 meeting is as shown on the slide. We are focusing on the
21 issues, Chairman Jackson, that you identified in your
22 opening remarks.
23 I do want to take this opportunity to introduce
24 John Streeter. John is the recovery officer of oversight
25 and the newest member of the senior leadership team.

1 Included in John's background are 14 years with the NRC,
2 time at headquarters, Region I and primarily Region III.
3 That has included managing inspection programs for several
4 plants and the construction testing and operational phases.
5 He was director of quality assurance at Comanche Peak, and
6 he was providing assistance to us in a very important way in
7 the employee concerns program and we asked him to take on
8 this assignment. I'm very pleased to have him as a part of
9 the leadership team.
10 Our effective ongoing performance requires high
11 standards, standards which are established by my leadership
12 and embraced by the entire workforce.
13 What I want to emphasize is that we have
14 repeatedly placed standards over schedule. A recent example
15 occurred in the days prior to the entry into Mode 4. An NRC
16 concern was expressed as to whether non-pressure retaining
17 parts for safety related equipment had been procured in
18 accordance with appropriate quality specifications, and
19 while we believed that they had, and this was not
20 established as a restraint item for Mode 4, we nevertheless
21 took the time -- and this was a delay of several days -- to
22 do a 100 percent review and found no significant problems.
23 Effective ongoing performance also requires strong
24 self-assessment. This is characterized by vigilant
25 management controls, and that will be addressed in Marty

1 Bowling's presentation, and it also requires effective
2 oversight mechanisms which are principally the nuclear
3 oversight organization, and John Streeter will be talking
4 about that, the NSAB, the Board of Trustees Nuclear
5 Committee and the Nuclear Committee Advisory Team, and I
6 will be talking about each of the last two shortly in my
7 presentation, but I would first like to address the issue of
8 leadership.
9 New leadership has established high standards at
10 Millstone based on diverse expertise. This includes strong
11 backgrounds in operations, engineering, licensing, quality.
12 We're a fairly eclectic group. We have considerable
13 industry experience. This includes other utilities, DOE,
14 NRC, a track record of success which is based on a
15 combination of experience and having managed excellent
16 plants, construction, startup, operations.
17 We have placed a considerable emphasis on
18 communications, both in conveying the standard and in
19 listening to our employees to learn whether or not the
20 standard is understood and thus, to ascertain whether
21 performance is meeting expectations.
22 I believe we have set high standards, and in some
23 cases, one example being safety conscious work environment,
24 I believe our recovery standards and processes are setting
25 the standard for the industry.

1 Millstone's recovery is built on four leadership
2 values. The first is to do what is right. This embodies
3 our commitment to high standards. It's intended to convey
4 the highest sense of personal integrity, and perhaps less
5 obvious, a sense of ownership.
6 The philosophy here is that we must believe in
7 what we are doing. These must be our high standards. Just
8 following the NRC requirements without a commitment to doing
9 what is right is not good enough.
10 The second is respect and care for the individual.
11 This means we value the individual, we value diversity, we
12 care about each other, and I hope it's clear that this value
13 has been the underpinning of our establishment of a safety
14 conscious work environment.
15 CHAIRMAN JACKSON: Mr. Kenyon, can I get you to
16 highlight for the Commission the extent of the management
17 changes at the various levels, if you could just speak to
18 that?
19 MR. KENYON: Yes.
20 CHAIRMAN JACKSON: Thank you.
21 MR. KENYON: At an officer level, all but one
22 officer is new. The one officer who is not new had been in
23 the position for about six months at the time I arrived. At
24 the director level, approximately 85 percent and perhaps
25 slightly higher than that now of the directors are new in

1 their positions from the situation that existed when I
2 arrived in September of 1996. I'm not sure I can quote
3 statistics at the manager level and below, but there has
4 been a huge change in who's doing what.
5 The third value is teamwork, reconstructing a
6 sense of teamwork in an organization whose culture had been
7 significantly damaged, with the additional challenge of
8 utilizing individuals from diverse backgrounds and
9 companies. This has been a challenge, but it is a challenge
10 we have met.
11 I think one of the best examples of the resulting
12 teamwork has been the willingness of various members of the
13 leadership team, both at an officer level and at a director
14 level, to take on other assignments as the changing needs of
15 the organization have dictated.
16 The fourth value is customer focus. In the case
17 of a nuclear organization, what we mean by customer focus is
18 focus on the internal customer, making sure that the
19 services that are provided by an individual in the
20 organization or an organizational unit are the right service
21 and that they are properly performed.
22 Now, living to these values has meant both the
23 setting of high standards and the willingness to admit
24 mistakes when the standards were not met. This is such as
25 senior individuals apologizing for a poor choice of words,

1 the reinstatement of a manager when it became clear that the
2 action to remove him had not been well executed. But living
3 to these values has also meant dealing with difficult
4 situations, and in the process making some very strong
5 statements regarding our commitment to high standards.
6 Examples are the disciplining of a significant
7 number of individuals who in various ways did not exercise
8 proper diligence in complying with or ensuring compliance
9 with certain license operator training requirements; the
10 prompt investigation and resulting reinstatement of two
11 motor operated valve contractors when it was concluded that
12 their discharge had been retaliatory; a stand down of all
13 training programs when it became apparent that there was not
14 sufficient compliance with a systems approach to training; a
15 stand down of site work in order to emphasize the importance
16 of procedural compliance; and the very prompt and strong
17 repudiation of the phrase "isolate the cynics" and the
18 independent investigation of its origin.
19 Living to these values greatly reduces the
20 likelihood of future problems, and it also provides
21 assurance that when the problems occur, they will be
22 properly addressed.
23 The Millstone team effectively resolved key site
24 issues for Unit 3 restart. The status of these site issues
25 has been addressed in each of the briefing books we have

1 sent you in conjunction with this and previous meetings.
2 Fifteen of the 16 issues are now resolved, meaning
3 satisfactory for startup. The remaining issue is work
4 control, and with regard to work control, we have a good
5 program, we are awaiting modestly higher success rates for
6 jobs started and jobs completed as scheduled. So it's a
7 productivity issue rather than a standards issue. And we
8 expect this to occur as we get fully implemented into a
9 12-week rolling schedule which we are now in the process of
10 doing and we also have certain backlogs which have not yet
11 met our goal.
12 CHAIRMAN JACKSON: Mr. Kenyon, this isn't the main
13 agenda item for today, but since you have recently been
14 heating up the plant, can you comment a bit on your
15 assessment of operator performance in heating up the plant?
16 MR. KENYON: Yes. We have been in and out of --
17 well, we went into Mode 4 and then subsequently we have been
18 in and out of Mode 3. The plant is currently in Mode 3 at
19 normal operating pressure and temperature.
20 In initially going into Mode 4 there were a series
21 of about five events where I was disappointed in how
22 operations handled things. Subsequently I've been very
23 pleased with what they've done and how they've done it.
24 We've done a lot of looking at those events and on
25 the surface there's no clear linkage of root causes, but

1 frankly we weren't satisfied with that. We felt there had
2 to be something more here. And ultimately what we concluded
3 is that even though what was going on it was easy for
4 operations to say, well, I've done this before and I know
5 how to do it, and, therefore, I'm going to do it. With the
6 plant not having operated for two years, and that's really
7 what we're doing when we go into Mode 4 and up, we're moving
8 into a realm where the plant operations has not really
9 exercised the systems.
10 We're moving to an area where in spite of the fact
11 they really thought they knew how to do it, they were rusty,
12 and thus, we have taken steps which include much stronger --
13 I'll call it "job prebriefings". It's more like evolution
14 prebriefings and placing for key evolutions, placing
15 additional reactor operators or senior operators and/or
16 management individuals in the control room in order to
17 strengthen the management overview as we work through
18 getting comfortable. So I think we've taken appropriate
19 actions. I was disappointed, but I think subsequent
20 performance has been good.
21 What was one of the key issues in the security
22 area, and I just note that that was on the list of your key
23 site issues. An example, we had problems where there were
24 -- we would find instances of a vehicle inside the protected
25 area with keys in the vehicles and it took a lot of effort

1 the get the work force to clearly understand that is
2 absolutely not going to be allowed and subsequently --
3 CHAIRMAN JACKSON: I understand.
4 MR. KENYON: -- that's an example.
5 CHAIRMAN JACKSON: Okay. I understand.
6 MR. KENYON: Leadership assessment shows
7 significant progress in all categories. Improving
8 leadership has mean making a significant commitment to
9 leadership training, most first-line supervisors and above
10 had been through a two-week program which is called "Forum
11 for Leadership Excellence" as well as significant other
12 training and we have taken concerted action to deal with
13 those individuals whose leadership scores are in the bottom
14 10 percent of the leadership assessment. And actions have
15 ranged from an individual development program to, in many
16 cases removing the individual from the position.
17 In the interest of comparison, these leadership
18 scores are only modestly less than the current scores
19 achieved by B.C. Summer, a plant with excellent performance.
20 My previous plant, it's where I first used a survey that's
21 very similar to this.
22 Beyond the direct actions of leadership it is
23 essential that there be very capable independent checks and
24 balances on the organization, and one of these is the
25 Nuclear Safety Assessment Board, NSAB. This provides

1 independent review both of line management and of the
2 oversight function. The NSAB is effective, it's membership
3 is strong and inquisitive, important issues are being
4 reviewed and addressed. It's focused on confirming and
5 strengthening standard. It champions the effectiveness of
6 nuclear oversight and the NSAB effectiveness has been
7 evaluated and affirmed by NCAT which has regularly observed
8 it's meetings.
9 CHAIRMAN JACKSON: How does the NSAB feed back to
10 the plant safety review committee?
11 MR. KENYON: Well, the plant safety review
12 committees have products that come to the NSAB.
13 CHAIRMAN JACKSON: Okay.
14 MR. KENYON: And if the quality of the product is
15 not appropriate, the NSAB tells the plant committees and the
16 NSAB would identify it as inadequate performance if there
17 was any significant frequency of inappropriate quality
18 products coming to the NSAB.
19 Examples of important actions by the NSAB, they
20 help to precipitate the training stand down that I mentioned
21 earlier. They have strongly promoted significant
22 improvements in plant lay up status, they thoroughly review
23 the effectiveness of oversight and they significantly
24 contributed to the improvement of our safety evaluation
25 process. So I'm quite comfortable that the NSAB is

1 functioning well as an important safety advisory
2 organization to me.
3 Now, independently overviewing the Millstone
4 recovery and clearly future operations including the NSAB is
5 Northeast Utilities' Board of Trustees Nuclear Committee.
6 This committee is currently meeting twice a month, once in
7 person and once by phone. Over the last 12 months the
8 committee has met at Millstone for a full day four times.
9 These full-day, on-site meetings include meetings where the
10 nuclear committee meets with several groups of employees in
11 order to get very direct and very independent feedback.
12 The nuclear committee reviews a monthly
13 comprehensive written report. There are approximately 30
14 pages of narrative and another 60 pages or so of key
15 performance indicators. Gail de Planque and Bill Conway are
16 two members whose names I think you will recognize. The
17 committee receives strong support from the Nuclear Committee
18 Advisory Team, NCAT.
19 NCAT independently reports to the nuclear
20 committee, has monthly, full-day, on-site meetings and its
21 members include George Davis and Tom Murley and recently
22 Phil Clark who is here is going to come on that group and to
23 replace George Davis.
24 As an aside, when I talked to others in the
25 industry about lessons to be learned from the Millstone

1 experience and what is different about our current situation
2 such that a performance decline of this magnitude and
3 duration cannot happen again, I almost always point out the
4 essential difference of the Board or its nuclear committee
5 and the crucial need for this committee to have good
6 credible on-going information that is independent of line
7 management. And I think this is very important for two
8 reasons. First, so there is a good independent check on
9 line management at a senior level. The Board should not be
10 surprise, and I'm quite confident that the company's board
11 will not be surprised again.
12 The second reason is that I have found NCAT's
13 monthly, full-day visits with a debrief to me at the end of
14 the day to be quite valuable. Sometimes to simply confirm
15 my own observations regarding organizational performance,
16 sometimes as a very useful sounding board to discuss
17 strategy, sometimes with insights and observations somewhat
18 differing from my own and those needing to be checked out
19 and sometimes with an idea or suggestion.
20 My point is that the creation of the Nuclear
21 Committee and NCAT in response to the Millstone problems,
22 this did not exist before, are one more very important
23 demonstration of the essential checks and balances which
24 have been built into NU's nuclear operations and thus are a
25 very important difference from the past.

1 As we expect to shortly become a Millstone
2 organization with one unit in operation, and one in
3 recovery, and one in a safe shutdown maintenance mode, it's
4 important that the organization clearly emphasize separation
5 of operations from recovery, and that we ensure that
6 sufficient resources are devoted to the operating unit.
7 Mike Brothers is the vice president of operations
8 and he's devoted to Unit 3.
9 Jack McElwain is the recovery officer for Unit 2
10 and thus is responsible for Unit 2 recovery as well as
11 maintaining Unit 1 in a safe shutdown mode.
12 Marty Bowling is the recovery officer for
13 technical services and thus that primarily deals with
14 regulatory and engineering services and for these important
15 services which are common to the three units, it's his
16 responsibility to ensure that the proper priority is given
17 to operating units.
18 Dave Amerine is the vice president of human
19 services and I want to use this opportunity to emphasize the
20 very significant organizational step that was taken when
21 what we characterize as the various people-related
22 functions. I'm talking about human resources, the safety
23 conscious work environment staff, training, the employee
24 concerns program, emergency planning, these considerable
25 people-related functions were pulled together under one

1 officer to provide strong focus on how we handle the
2 people-related activities at Millstone. And we intend to
3 keep these functions together under once officer for the
4 indefinite future.
5 Now, in addition to ensuring a proper separation
6 of operations from recovery, organizational planning has
7 been conducted to achieve the following objectives. A
8 simplified long-term organization. We have an organization
9 that is sufficiently effective for recovery and startup.
10 But because it is unitized, it is complex and somewhat
11 inefficient. So a simplified organization will also give us
12 improved economies of scale, and by doing succession
13 planning for this later, simplified organization, with fewer
14 management positions, we are preparing for a systematic
15 phaseout of the recovery teams.
16 I'd like to make two points on this. First, we
17 have moved considerably away from the original concept of a
18 recovery team. Yes, there are a number of PECO and Virginia
19 Power individuals in various positions in the organization.
20 But today they are much more in an individual contributor
21 role than functioning as a entire loan team. Consequently
22 we are now in a much more reasonable position to eventually
23 replace loan individuals on a very orderly and sequenced
24 basis, largely one at a time as their services are no longer
25 required.

1 The second point is that we will not make
2 significant organizational changes or major staffing changes
3 without very careful assessment and follow up to assure
4 effectiveness. So we are planning for full implementation
5 of the long-term organization when unit-specific recovery
6 organizations are no longer required.
7 Now, going forward we must have a plan that will
8 sustain and improve performance. The plan has been drafted,
9 it's known as the 1998 to 2000 performance plan. It's based
10 on strategic planning that's been completed by the nuclear
11 officers and we are not involving the directors and others
12 in refining the plan and building ownership.
13 The plan is organized around five strategic focus
14 areas as listed on the slide. It emphasizes in the early
15 stages in particular self-assessment and monitoring with
16 numerous key performance indicators, and it contains the
17 priority initiatives.
18 We are beginning the process to have the plan
19 reviewed and refined by others in the organization in order
20 to improve content and particularly volume. This plan will
21 not be implemented until we complete the recovery of Unit 2.
22 Now, overarching the 16 site issues and introduced
23 at the last Commission briefing are NU's eight restart
24 affirmation criteria which I want to briefly review and
25 indicate current status for Unit 3 restart.

1 The first is root causes for the decline in
2 Millstone's performance have been identified and corrected.
3 We believe this area is satisfactory. As I have
4 reviewed in previous presentations the causes for
5 performance decline have been well-established and
6 fundamentally it was leadership.
7 Second, compliance with the licensing and design
8 bases has been restored. We view this as tracking to
9 satisfactory while compliance has been substantially
10 restored. Remaining actions include completing the
11 corrective actions for level 3 DRs and there's one license
12 amendment that is in process.
13 CHAIRMAN JACKSON: Is this area in any sense
14 critical path?
15 MR. KENYON: Well, we're expecting the license
16 amendment around the 21st or 23rd and I don't really that as
17 critical path. So I think these are tracking quite well.
18 And we'll complete it later this month.
19 CHAIRMAN JACKSON: Okay.
20 MR. KENYON: The third is safety conscious work
21 environment has been established. We believe that is
22 satisfactory, a very significant accomplishment, this will
23 be addressed in Dave Amerine's presentation. But I also
24 want to comment from a personal perspective.
25 The heart of the Millstone recovery effort and

1 undoubtedly its most difficult challenge has been the
2 establishment of a safety conscious work environment.
3 In joining NU 20 months ago I found an environment
4 where the reservoir of trust between employees and
5 management that you find to varying degrees in most
6 organizations was largely gone. And, thus, trust had to be
7 rebuilt in a climate of distrust. And that's a difficult
8 challenge.
9 Extraordinary, and in many cases innovative
10 actions were required, and I just want to quickly name a
11 few: The removal and replacement of all incumbent officer,
12 almost all of them; the new paradigm of recovery teams; the
13 retention of a former whistle-blower as a consultant, Paul
14 Blanche; the establishment of an employee volunteer team
15 many of whom had had prior negative experiences in
16 expressing concerns. And the function of this team was to
17 design the new employee concerns program, so we turned it
18 over to our employees; the establishment of ECOP, the
19 employee concerns oversight panel, a committee of employees
20 to be an ongoing assessor of management's safety-conscious
21 work environment performance.
22 The use of a leadership assessment as a means for
23 employees to tell us who -- who was and was not functioning
24 as a good leader, and along the way we frankly learned. We
25 thought leadership had received sufficient training on what

1 to do. It hadn't, we had to do a lot more. This involved
2 taking the entire leadership team as a group, first-line
3 supervisor and above, off site for several full-day
4 sessions. We learned that the process to handle employee
5 concerns had to be made a lot better. We learned that
6 responses to employee concerns had to be much better
7 coordinated, and we learned that we had to communicate,
8 communicate, and communicate. So a huge improvement has
9 been achieved and in large measure has been built around the
10 efforts to reestablish employee trust. I mean, that's been
11 the foundation of what we've been trying to do.
12 You are generally aware of our accomplishments.
13 And, again, Dave Amerine will talk about this some more, but
14 I want to share with you some recent examples of what
15 employees have done on their own.
16 -- actions which I think powerfully and
17 meaningfully describe their current feelings.
18 Our own employees have provided personal witness
19 at public meetings, more recently at a Connecticut DPUC
20 hearing on the Millstone rate base matters, with wonderful
21 content and feeling, and some are here today on their own to
22 share that with you.
23 They formed their own grass roots organization.
24 They collected over 1500 signatures on a petition. The
25 petition states that they are committed to operating the

1 station safely and also states their belief that management,
2 and now I am quoting from the petition, "treats us with
3 respect and we are confident that any safety issue we find
4 will be completely addressed in a timely manner."
5 They held their own rally to celebrate achieving
6 Mode 4 and they collected the necessary $4,000 to take out
7 their own full-page ad in the local newspaper, which ran
8 this past Sunday, so that is what the current work
9 environment at Millstone is all about, and we, the
10 leadership team, are proud to be a part of that.
11 The fourth criterion, self-assessment and
12 corrective action, processes identifying, resolve problems
13 in a timely manner -- we believe this is satisfactory.
14 The self-assessment portion will be addressed in
15 Marty Bowen's presentation and corrective action will be
16 addressed in our next briefing.
17 Fifth, unit and support organizations are ready to
18 resume operations. We believe this is tracking to
19 satisfactory. Operations are assessed as ready with
20 personnel properly trained and qualified. Yes, we had these
21 events that we mentioned earlier. Programs, processes and
22 procedures which comply with regulatory requirements are in
23 place and are being effectively implemented. Plant systems
24 are operable and in good material condition.
25 As previously discussed, work control is the one

1 key issue which is not yet satisfactory, but I do want to
2 emphasize that we are doing work that is well-controlled.
3 We just haven't reached the desired level of productivity
4 and this should be resolved in May and we are also working
5 down our backlogs and Mike Brothers will talk about that
6 more later.
7 Sixth, the entire station is prepared to properly
8 support unit operations. This is tracking to satisfactory.
9 Overall, the organization is ready. The one significant
10 exception is that our plan to ensure sustaining performance
11 has been drafted but is not yet finalized.
12 Seventh, management controls and oversight
13 measures are in place to prevent significant performance
14 declines. We believe this is satisfactory.
15 Now I am not going to bother to repeat some
16 obvious points on management controls, but I do want to make
17 two important observations.
18 First, as I have already stated, I strongly
19 believe in an organization with good checks and balances.
20 It is healthy. It is an essential ingredient to the
21 achievement of excellence.
22 When I think about what is substantially different
23 between what I might characterize as the old Millstone and
24 the Millstone that is before you today or the new Millstone,
25 I would certainly identify leadership, as I have already

1 discussed. I would identify the working environment and the
2 level of trust as being substantially different, and I would
3 also identify the capability and role of oversight as being
4 substantially different.
5 In the old Millstone, oversight was viewed by many
6 as a regulatory requirement -- not a strong organization and
7 not an organization that was a strong contributor to
8 excellence.
9 In today's Millstone, the contrast is dramatic.
10 Oversight is a partner in helping to define standards,
11 standards which lead to excellence, and with better role and
12 staffing oversight is a much stronger organization.
13 As an example, some time ago I told the line
14 organization that I wanted Oversight to sign off on our
15 readiness for Mode 4. The line was somewhat surprised that
16 Oversight hadn't historically done that, but it resulted in
17 some very healthy interactions between the line and
18 Oversight regarding standards and performance and how well
19 performance was meeting those standards.
20 Now naturally Oversight is involved in assessing
21 our readiness for Mode 2, and what is interesting as we get
22 ready for Mode 2 that is somewhat in contrast to getting
23 ready for Mode 4, the line organization has gone to
24 Oversight and said what are your standards? -- you know,
25 what are the criteria -- let's sit down and talk about it,

1 and that now has taken place. There has been just excellent
2 interaction on where are we, are we ready, and so forth, so
3 what we have today is an oversight organization and line
4 management that are working very much in partnership, as
5 opposed to what existed some time ago when oversight was
6 simply something that had to be there.
7 My second point on management controls and
8 oversight goes beyond the importance of these controls --
9 which I think is considerable -- to what I believe is
10 Millstone's most important and fundamental barrier in
11 response to the question how is a possible backslide in
12 performance prevented.
13 Certainly the controls and oversight are a key
14 aspect, but fundamentally the most important and strongest
15 barrier is our employees and they won't permit it, and let
16 me explain why.
17 Our employees have been through a rough
18 experience, but as a result of that experience, they know
19 more about their rights and responsibilities to raise
20 concerns and how to get them resolved through various
21 mechanisms than perhaps any other nuclear workforce in this
22 country. They are knowledgeable. They are empowered. They
23 know how to do it by various means and they know that it is
24 their responsibility, so I can assure you because I
25 absolutely believe this, they are vigilant and they won't

1 allow a backslide, and that is how it should be.

2 Eighth, restart readiness is affirmed, using a

3 rigorous process. This is tracking to satisfactory.

4 This means that we do have the rigorous

5 affirmation process in place. Four of the previous seven

6 criteria are now satisfactory. The rest are tracking. The

7 important remaining affirmation steps are the Unit 3, Mode 2

8 review and affirmation by line management, a Nuclear

9 Oversight recommendation, NASB recommendation, and

10 ultimately my recommendation and judgment.

11 This concludes my presentation, unless there are

12 questions for me.

13 CHAIRMAN JACKSON: Please.

14 COMMISSIONER McGAFFIGAN: Let me just ask a

15 question, because Mr. Lochbaum is going to raise it later

16 today and others perhaps.

17 The RSS orifice modification issue, where

18 Oversight apparently made some predictions that proved

19 correct and I remember Dave Goebel, when he was here at a

20 previous meeting talking about the need for his organization

21 to build credibility with the plant and apparently it had

22 not in the old Millstone been staffed with the best people.

23 You have addressed that you think that they are

24 being paid attention to as you forced it in Mode 4. They

25 are doing it naturally in Mode 2, but that particular

1 incident is the incident that people are going to raise
2 questions about, whether Oversight is really being paid
3 attention to, so any comments you would want to make? Or if
4 that is going to come up later, I can --
5 MR. KENYON: Well, let me make just a couple of
6 general comments, and then I would like John to add to it.
7 Yes, Oversight raised the concern, but I don't
8 think people have fully recognized -- certainly, we have at
9 Millstone, but not necessarily outside -- is Oversight was
10 listened to.
11 I mean we went through evaluations to endeavor to
12 determine whether or not this -- there was a real problem
13 there or not. Oversight was fully involved in that process.
14 We ultimately agreed that while the evaluations seemed to
15 show it was okay, we would go through testing and we went
16 and Oversight was very much involved in that, so it wasn't a
17 case of Oversight over in one corner and line management
18 over in another corner. It was a focus of both to try and
19 understand what the situation was and whether or not there
20 was really a problem.
21 John, what would you add to that?
22 MR. STREETER: If I had to pick an example to
23 demonstrate to you about the value of Oversight and how it
24 is performing, I would use this as an excellent example --
25 it is recent -- and I will tell you why.

1 We had initial discussions with the line on this,
2 the possibility of this particular problem developing, the
3 vibration in the expansion joints in the bellows back
4 preceding December, November-December timeframe.
5 Our initial discussions with the engineering
6 organizations in the line resulted in us not coming to
7 agreement about the potential for that problem, so to
8 elevate that and to assure that it was thoroughly evaluated,
9 we initiated what we call a condition report, which is how
10 we capture things that don't appear to be right to get
11 resolution. As I said, that was initiated in December.
12 We proceeded to having discussions with the line,
13 trying to come up with a meeting of the minds. Now I want
14 to express here, it wasn't a matter of something being in
15 non-compliance. It was an area that I would call
16 engineering judgment.
17 Based on the data that we had, we had a view. The
18 line had a different view of the matter.
19 It proceeded along to where testing of the systems
20 commenced. When the testing began we wanted to assure
21 because the concern was vibration that the systems, the
22 joints were adequately instrumented during the testing, so
23 that we could demonstrate conclusively whether or not there
24 was a vibration problem.
25 We had continuing discussions in the January-March

1 timeframe about where the instrumentation should be placed.
2 Our interaction resulted in the enhancement of the location
3 of the transducers on the lines to assure that we looked at
4 the potential vibration all three directions, what they call
5 the axial and then the "x" and the "y" directions as well.
6 When we were satisfied that we had them properly
7 instrumented and were getting the data, we proceeded through
8 the line proceeded testing the pumps, which we were
9 intimately involved with witnessing the test results and
10 looking at the test results and witnessing the testing.
11 We proceeded to the point to where we were
12 gathering data. It still didn't look good to us from our
13 visual observations and for looking at the data, so we chose
14 to proceed, and Oversight chose to proceed with the vendor
15 to get their, what they call their calculation -- what their
16 basis was for the acceptability of the displacements we were
17 seeing.
18 The vendor responded initially in a manner that we
19 didn't feel or thought was rigorous enough as far as the
20 quality of their calculation, so we proceeded with that
21 until we got a calculation that we thought had the proper
22 controls and it was a good calculation.
23 At that point then, the line organization received
24 the information at the same time we did. They took the
25 information that had been gathered from the instruments that

1 we had an impact as far as to ensure its adequacy -- they
2 took that information, looked at the calculation and the
3 assumptions in those calculations and they found that the
4 calculation assumed only lateral movement in one direction
5 and it didn't take into account the "x" and the "y"
6 displacements in there.
7 Once that was discovered, combined with the test
8 results that was obtained from the instruments that we again
9 influenced having in place, it became obvious to the
10 engineering organization that the orientation of those
11 orifices relative to the bellows -- they should have been
12 placed in the opposite. Rather than being before the
13 expansion bellows, the conclusion was it should have been
14 after.
15 So it was at that point when the conclusion was
16 reached, it was decided to disconnect the piping so that the
17 orifice could be -- the orientation of it could be changed.
18 That point in time is when the internal damage was
19 discovered at that point, and I can tell you that if
20 Engineering had not discovered the calculational error I am
21 absolutely positive that Oversight would have. We were the
22 reasons it went the direction it did, that we identified and
23 determined the extent of the problem, and additionally, and
24 I will say more about this later, it was on what we called
25 our Mode 4 checklist, the same checklist that Bruce was

1 referring to earlier.

2 We would not have proceeded at that point without

3 complete resolution of that issue, so I use that as a very

4 positive example in my mind of the influence of the

5 Oversight organization.

6 COMMISSIONER DIAZ: Well, I was just on the

7 question or issue.

8 You just told me something I did not know. The

9 testing did not discover excessive vibration or noise. It

10 was that you discovered that the calculation was one

11 dimensional instead of being two-dimensional, and that is

12 what led you back to the -- or we'll say the action testing

13 that shows that there was some unacceptable vibrations?

14 MR. STREETER: The testing, Commissioner,

15 indicated to us that it looked like it was excessive

16 vibration. It met the criteria that was in the calculation

17 in the first place, but that was suspect to us. It also

18 satisfied the flow requirements in the testing. So it

19 wasn't something that was in the test results that caused or

20 something that revealed internal damage, rather it was

21 putting these pieces together, the instrumentation, the

22 results of the vibration, plugging it, so to speak, into the

23 calculation where it hadn't been before, saying this is not

24 right, the orientation has to be changed.

25 It wasn't anything dramatic like a test failure or

1 something.

2 COMMISSIONER DIAZ: There was no sound transducers

3 installed during the testing?

4 MR. STREETER: The transducers were -- that's

5 where we were getting the data for the --

6 COMMISSIONER DIAZ: Sound?

7 MR. STREETER: No, not to my knowledge.

8 CHAIRMAN JACKSON: Well, let me ask you this

9 question, let's extract and abstract from what you just

10 said. Two questions. One, what then do you feel is the

11 appropriate metric for effectiveness of Oversight, given the

12 litany that you just went through? And, second, did this

13 reveal some engineering inadequacies in terms of its

14 analysis and ability to get to the root of the problem?

15 MR. STREETER: The appropriate metric here would

16 be, in my opinion, the identification and resolution of the

17 problem. That's -- that's how I would view the metric. We

18 identified --

19 CHAIRMAN JACKSON: So you are saying that the

20 metric should not -- it's not that the Oversight

21 organization and the line organization did or did not

22 initially agree, but that Oversight was able to push the

23 issue to the point of resolution? Is that what you are

24 arguing?

25 MR. STREETER: That's correct. It is not uncommon

1 for Oversight organizations to have different views than
2 line organization, and have to resolve them through this
3 process. It is in one of those areas, Dr. Jackson, where it
4 is not -- it is not cut and dried, as far as this is a
5 requirement and you are not meeting it versus you are
6 meeting it. Rather, it is in the area that I was calling
7 about, this particular one area of engineering judgment,
8 where we had two different views.
9 That's why it is vitally important, and I'll talk
10 more abut this later, about us having the calibre of people
11 that we have, that are able to look at those and render
12 those technical judgments and being able to discuss, and
13 then coming out with the right conclusions with those.
14 CHAIRMAN JACKSON: Is there any statement that you
15 would make or not with respect to the robustness of the root
16 cause analysis and/or the engineering depth that -- what
17 would you say in this regard?
18 MR. STREETER: I would say that the engineering
19 depth in this one, that led to the installation of the
20 system the way it was, was not what I would have expected.
21 CHAIRMAN JACKSON: Has there been improvement
22 since that time?
23 MR. STREETER: There is continual improvement
24 going on in the engineering area. And I hate to keep saying
25 this again and again, but I am going to talk to some areas

1 about engineering. Engineering is not where we want it to
2 be, not where Oversight wants it to be. But then again, I
3 would have to say that many areas aren't to the -- do not
4 reach the high standards that we have now.
5 CHAIRMAN JACKSON: Commissioner Dicus.
6 COMMISSIONER DICUS: I'll ask the question now,
7 you may, if you wish, choose to answer it when you do your
8 formal presentation. But given this situation, have you
9 identified now, in the process that you are in, other areas
10 where Oversight is disagreeing with line management or vice
11 versa?
12 MR. STREETER: Let me say again, and this is
13 really important, it is not uncommon to have different views
14 on standards, and that's what we are talking about here.
15 And what I will speak to a little while is that one of the
16 critical pieces of why Oversight is effective -- is as
17 effective as it is today, is because it has been empowered
18 to raise the standards that are in place at Millstone now.
19 In other words, in just going by the bare minimum, Bruce
20 Kenyon has sent out expectations to the entire work force
21 that he is using Oversight and expects Oversight to go
22 beyond that, to elevate those and to raise our standards of
23 performance.
24 COMMISSIONER DICUS: Okay. To follow up on that
25 then, and I agree, that is a good response. But in

1 situations where Oversight is identifying something, or
2 indeed line management has identified something, is there a
3 good working relationship between the two to work toward
4 resolution?
5 MR. STREETER: There is a good working
6 relationship and it is approaching excellent.
7 CHAIRMAN JACKSON: My only comment/question really
8 has to do with the fact that the Oversight organization in
9 the end is not the line organization, even though we are
10 obviously interested in the effectiveness and quality of
11 Oversight. And so -- but it is a barrier, and that is an
12 important one to have. But it does reflect back to the
13 question of, and then I guess I will put the question to Mr.
14 Kenyon, in terms of the first line is in the line, and in
15 that sense, it tracks back to engineering. And so what is
16 your judgment relative to whether engineering is where you
17 would like to see it be? And what steps are you taking if
18 it doesn't meet your expectations?
19 MR. KENYON: Engineering is satisfactory.
20 CHAIRMAN JACKSON: Okay.
21 MR. KENYON: And any engineering organization.
22 This particular issue was one where there is a fair amount
23 of judgment. It isn't a simple little black and white kind
24 of question. So there was judgment -- and really to go back
25 to where Commissioner McGaffigan started, this was not line

1 management in one corner arguing one position, and Oversight
2 in another corner arguing an entirely different position.
3 These were two professional organizations that, when there
4 was a question, they went to get further calculations, they
5 went back to the designer of the system, they went to some
6 experts beyond that to try and get calculations done. So it
7 was not the easiest engineering problem.
8 But what was going on here was Oversight raising a
9 concern and line management not so much arguing with it as,
10 all right, let's work through it. Let's see -- let's see
11 what's there.
12 So would I have liked the conclusions through the
13 engineering process to have identified the problem rather
14 than testing having identified the problem? In other words,
15 would I have liked engineering to have caught it and we not
16 had even gone to the testing step? Certainly, I would. But
17 the whole point of testing is that occasionally you can't
18 prove everything up front, so you do do some testing. And
19 Oversight was involved in the testing, engineering was
20 involved in the testing, and it resulted in a satisfactory
21 resolution.
22 CHAIRMAN JACKSON: But it really wasn't until you
23 dismantled it that you found the internal damage?
24 MR. KENYON: We didn't know that we had internal
25 damage until we took it apart. But the testing,

1 particularly on the fourth pump, where we did some more
2 sophisticated testing, and was looking at vibration in all
3 three directions, because we just weren't that satisfied
4 with what had happened up to that point, it was as a result
5 of that that we decided the prudent thing to do was drop the
6 expansion joint out and look inside. So, yes, we were on a
7 trial here to ultimately get to the bottom of it.
8 You know, you ask the basic question, am I
9 satisfied with the performance of the engineering
10 organization? Yes, I am. Can they do some things better
11 and are they working to do some things better? Yes, they
12 are.
13 CHAIRMAN JACKSON: Commissioner Diaz.
14 COMMISSIONER DIAZ: Yes, if I may follow up on
15 Commissioner Dicus' question. I think there is a bottom
16 line in here which is the overlying issue, how this impacts
17 or does not on potential restart. And that is, is this an
18 isolated issue, or is this -- I mean have you actually gone
19 and checked further that similar systems with safety
20 significant has gone through a thorough process, so this is
21 an isolated case and not an indication that there might be a
22 few of those?
23 MR. KENYON: We have done that.
24 COMMISSIONER DIAZ: Okay.
25 MR. KENYON: And Marty Bowling will talk more

1 about that.

2 CHAIRMAN JACKSON: Commissioner.

3 COMMISSIONER McGAFFIGAN: Mr. Lochbaum also, in
4 his presentation, is going to make a recommendation that
5 there be round the clock NRC or mentor presence during and
6 after restart that would help guard against schedule over
7 safety mistakes. And he believes that one element of this
8 was a desire to keep on schedule on the part of the line.

9 Any comments you would want to make on that
10 recommendation? He says that we have done something similar
11 at Grand Gulf previously. But that clearly is Mr. Lochbaum
12 having a lack of confidence in I suppose Oversight or
13 whatever. So how do you respond to that recommendation?

14 MR. KENYON: Well, I would first like to comment
15 on the underlying premise and then comment on the
16 recommendation. I do not at all agree that schedule
17 pressures are what is causing. We have taken -- you know,
18 there is just example after example where we have stopped
19 what we are doing, looked at it, gone back, come out of Mode
20 3 to go into Mode 4. There are just example after example
21 of where we have -- I mean all of my discussions with
22 employees, almost every one, emphasizes the importance of
23 standards first and schedule second, so I do not agree with
24 the underlying premise.

25 Now, having said that, I have no objection to

1 another person in the control room. We are putting extra
2 individuals in the control room ourselves. And if the NRC
3 wants to do that, that's fine. Whether it is necessary or
4 not, I am not really going to comment on. We are doing --
5 it is our responsibility to operate the plant. We are doing
6 what we think is necessary to ensure that it is properly
7 operated.
8 CHAIRMAN JACKSON: Okay. Let me hear from Mr.
9 Amerine.
10 MR. AMERINE: Good morning.
11 CHAIRMAN JACKSON: Good morning.
12 MR. AMERINE: My name is Dave Amerine, and I am
13 the vice president of Human Services at Millstone. As such,
14 I have the lead for the area of safety conscious work
15 environment, which all employees are responsible for.
16 May I have the first slide, please?
17 We have achieved our six high level success
18 criteria that demonstrate to us that we have successfully
19 established a safety conscious work environment at Millstone
20 Station. We will continue to monitor and to evaluate these
21 criteria to assure that we sustain and continue to improve
22 our environment at Millstone.
23 We have measured our progress by the first four
24 criteria, and the fifth criteria, Employee Concern Oversight
25 Panel, was our independent internal review, particularly of

1 the efficacy of the Employee Concerns Program. The last
2 criteria, Little Harbor Consultant Concurrence, is the
3 independent external verification of our evaluation.
4 Although Little Harbor has recently said that we
5 have met their criteria for establishing a safety conscious
6 work environment, they did emphasize the tenuousness of that
7 achievement. Further, Little Harbor said that Millstone
8 will have truly arrived at a firmly established safety
9 conscious work environment when the extraordinary resources
10 presently required to nurture that climate are no longer
11 necessary. Until then, and even after that time, we will be
12 ever vigilant to assure there is no let up in our safety
13 conscious work environment commitment.
14 On March 31st, we submitted our safety conscious
15 work environment readiness letter to the NRC. In it we
16 stated that we have established a safety conscious work
17 environment at Millstone Station. This conclusion was
18 arrived at based on several factors, including performance
19 indicators we have been using for the last eight months to
20 assess our performance. We have also presented these
21 determinations to three internal bodies, Nuclear Oversight,
22 the Employee Concerns Oversight Panel, and the Nuclear
23 Safety Assessment Board. Following their own assessment,
24 they concurred that the safety conscious work environment
25 can support a return to operations at Unit 3. We have also

1 responded to all the recommendations provided by Little
2 Harbor Consultants.
3 This slide shows a rollup of our first criteria,
4 which is employee willingness to raise concerns. The last
5 leadership survey showed that greater than 97 percent of the
6 leaders were rated as effective in resolving employee
7 issues. In addition, the recent Employee Concerns Oversight
8 Panel survey data showed that 95 percent of the employees
9 surveyed would raise issues through their leadership.
10 Little Harbor Consultant targeted interviews showed 99
11 percent of the employees interviewed would raise issues to
12 their management.
13 CHAIRMAN JACKSON: How large a survey -- how large
14 were these surveys?
15 MR. AMERINE: Well, for example, the first survey
16 of the leaders including approximately 85 percent of the
17 leaders who qualified to have that survey done, which was
18 determined by the number of people they had reporting
19 directly to them. I might add that, as I say down later --
20 CHAIRMAN JACKSON: I mean who did you ask the
21 questions of, about leadership?
22 MR. AMERINE: The employees.
23 CHAIRMAN JACKSON: The employees.
24 MR. AMERINE: Yes.
25 CHAIRMAN JACKSON: And I am saying how large a

1 sample of employees did you have?

2 MR. AMERINE: Population-wise?

3 CHAIRMAN JACKSON: Yes. Population-wise. So you

4 surveyed for each leader, those who work for that leader, is

5 that the point?

6 MR. AMERINE: That's correct. Now, at the end of

7 this month, May, we will have another leadership assessment.

8 But this will not only include the leader to whom the

9 employees report directly but also include a skip survey.

10 So it will actually be a larger survey of the leadership

11 population.

12 CHAIRMAN JACKSON: And what about the culture

13 survey and the Employee Concerns Oversight Panel survey, how

14 large a population did they sample?

15 MR. AMERINE: I can't speak to the Employee

16 Concerns Oversight Panel survey. I am not sure I know that.

17 Mike Quinn is here, if he has -- knows that population size.

18 MR. QUINN: Typically, about 300-plus employees.

19 MR. AMERINE: Did you hear that? About 300-plus

20 employees.

21 MR. KENYON: And going back to the leadership

22 assessment, it's a very high percentage of our employees and

23 contractors. I don't know whether it's 95 percent, but it

24 is basically, you know, on a given morning, for a given work

25 group. Everybody is there before they go to the work, the

1 survey forms are passed out, the survey forms are passed in.
2 Somebody has the right not to do it, but it is relatively
3 few individuals who choose not to fill out the survey.
4 MR. AMERINE: One important segment of the
5 population that, since I have been in this position, I have
6 tried to make sure we are always mindful of are the shift
7 workers. My experience at a number of other facilities, it
8 is just too easy to forget about them, which is a
9 significant portion of your population.
10 Going back to the last survey that we mentioned,
11 the small percentage who said they would not use management,
12 would nevertheless avail themselves of some other avenue to
13 raise concerns. These indications confirm that the work
14 force not only possesses the willingness to raise concerns,
15 but it has the confidence that the concerns will be
16 addressed and the knowledge that raising of concerns will
17 not be met with retaliation.
18 I mentioned the next leadership assessment and the
19 fact that it will be what we call a skip level as well as
20 immediate level. At the end of June we will do another
21 culture survey as well.
22 CHAIRMAN JACKSON: Is this something you plan to
23 continue doing on a periodic basis?
24 MR. AMERINE: Yes, ma'am. It's part of our
25 performance plan that I will speak to a little bit later

1 going forward.

2 The next slide, please.

3 This performance indicator addresses

4 confidentiality and anonymous concerns. After an increase

5 in November and December, the number of concerns received

6 anonymously or requesting confidentiality has steadily

7 decreased, although April's number went up slightly. The

8 December increase was most likely influenced by the sitewide

9 education process completed in November of 1997.

10 So far in 1998 the average percent of concerns

11 requesting confidentiality or submitted anonymously is 36

12 percent, down from the 1997 average of 40 percent. As of

13 April 29, we had received 20 concerns in the month of April.

14 Six of these were received anonymously, and two requested

15 confidentiality. So we're up to a total of eight there,

16 whereas last month it was six. So this KPI or key

17 performance indicator will be watched closely due to that

18 slight increase.

19 Now there's an interesting point I'd like to bring

20 out that there's been a shift in the number of concerns that

21 have been received anonymously and those that are received

22 requesting confidentiality. The number received requesting

23 confidentiality, as I just said, in the April statistics as

24 of the 29th have gone down, and the number therefore

25 proportionately have gone up that were received anonymously.

1 And what that tells me is those employees who want personal
2 closure with their concern are not requesting
3 confidentiality as much as they had been in the past, and
4 that tells me that any fear of retaliation has subsided
5 quite a bit in the work force. So I think that's important
6 to note, because we lump those two together, but there's
7 something telling in those -- the relationship of those two.
8 CHAIRMAN JACKSON: What do anonymous concerns tell
9 you?
10 MR. AMERINE: Anonymous concerns are concerns that
11 people have, you know, taken the time to write out, perhaps
12 put in a drop box or sent in, but that their concern for
13 closure is not as intense, let's say, as someone who's
14 submitted it and signed it or submitted it, request --
15 signed it and requested confidentiality, meaning they would
16 like an answer back.
17 CHAIRMAN JACKSON: So you link anonymity to desire
18 for closure as opposed to anonymity to concern about
19 retaliation.
20 MR. AMERINE: I think the fact that the person has
21 signed the concern means that they personally want some
22 closure. The fact that a few of them are requesting --
23 fewer are requesting confidentiality now than before tells
24 me that the work force has a lot more confidence in their
25 management.

1 CHAIRMAN JACKSON: Statistics can be read many
2 ways.
3 MR. AMERINE: I think I received that advice from
4 you last time.
5 [Laughter.]
6 CHAIRMAN JACKSON: I'm consistent.
7 MR. AMERINE: If I could have the next slide,
8 please.
9 There are actually three slides here, and these
10 following three slides demonstrate how the second criterion,
11 which is line management handling issues effectively, has
12 been met. The statistics reflect management's belief that
13 the reestablishment of a safety-conscious work environment
14 requires effective resolution of all concerns, not just
15 those that may have safety implications. Employees who have
16 no fear of retaliation for any reason will necessarily be
17 more willing to raise issues having an impact on safe
18 operation of the plant. And the fair treatment of employees
19 necessarily enhances employee morale and pride in the
20 organization.
21 Now speaking to this performance indicator, the
22 percent of overdue assignments had increased at the
23 beginning of April, which we believe is due to the efforts
24 to close the necessary items for Mode 4. As you can see,
25 due to management attention, the numbers have been brought

1 back down.

2 CHAIRMAN JACKSON: How many additional resources

3 were applied to get under your three-percent goal?

4 MR. AMERINE: It wasn't so much an additional

5 resource as it was management attention and allocation to

6 those concerns.

7 CHAIRMAN JACKSON: Okay. So what might we expect

8 as -- if Unit 3 is allowed to restart and attention is

9 shifted to Unit 2, how do we ensure that you stay under your

10 three-percent goal?

11 MR. AMERINE: You're going to see one KPI -- I'm

12 sorry -- key performance indicator. In just a few minutes I

13 will address that question.

14 The next performance indicator, please.

15 Okay. The quality of evaluations remains above

16 our goal. The evaluation of quality is determined by the

17 management review team reviewing the condition report

18 evaluations and assigning a value by -- if they review it

19 without any comment and approve it without comment, that

20 gets a 4. If they approve it but they have comments that

21 have to be incorporated, that gets a 2. And if they

22 disapprove it the first time -- in other words, it's got to

23 go back for improvement -- then it gets a zero. And you can

24 see that we're staying above our goal of 3.

25 The next performance indicator is the average age

1 of the condition report evaluations, and that has been below
2 30 for the last six weeks, which have been our internal
3 goal, in addition to having no adverse trend. Again, these
4 last three performance indicators demonstrate management's
5 effectiveness at handling concerns. And I will get back to
6 your question, Chairman.
7 CHAIRMAN JACKSON: You know, all of these have
8 implicit -- either explicit or implicit thresholds. How do
9 you arrive at those? What do you decide what's good enough?
10 MR. AMERINE: Well, one of the things we do is we
11 look for -- most of these are looking at a trend to make
12 sure that we are either holding our own or getting better.
13 Some of the indicators we also look to see how is the
14 industry doing, what are -- we benchmark against the
15 industry to see what the good plants or the average plants
16 are doing.
17 Okay, if I could have the next one, please.
18 The Employee Concerns Program is effective and an
19 active contributor to our safety-conscious work environment
20 at Millstone. The age of concerns under investigation is
21 improving. It has been averaging approximately 50 days over
22 the past several months. This average is reflective, I
23 believe, of the large increase we saw in December and
24 January, and I've already talked to the cause for that
25 influx or what I believe to be the cause. People who would

1 use the program again have significantly increased to 90
2 percent for recent users. Employee concerns oversight
3 panel, Little Harbor, and the NRC 4001 evaluation judged the
4 Employee Concerns Program as effective.
5 Now before leaving this slide, let me add that at
6 Millstone visible senior management support for the Employee
7 Concerns Program has provided substantial manpower and
8 logistical resources and direct access to Bruce Kenyon, the
9 president and CEO. Corrective actions which arise out of
10 the Employee Concerns Program investigations are tracked
11 through a formal action tracking system.
12 In addition to the ECP staffing augmentation and
13 level of senior management support, the Employee Concerns
14 Program's effectiveness has been enhanced by the development
15 of a comprehensive manual. This manual formalizes the
16 recent improvements in the ECP processes, practices, and
17 consistency of performance. Notably the ECP process now
18 requires the conduct of an immediate assessment of the
19 concern to determine its safety significance and the need
20 for an operability or reportability determination, and also
21 the assessment for any chilling effect. The manual also
22 provides the process which governs the conduct of the
23 investigation, communication with the concernee, corrective
24 action, and feedback to the Employee Concerns Program from
25 the concernee on how he or she viewed the process.

1 If I could have the next slide, please.

2 This is the performance indicator that shows that
3 the number of people who would use the Employee Concerns
4 Program has increased significantly, which I mentioned
5 before. In June of last year both the employee concerns
6 oversight panel and the Little Harbor survey showed 50 to 60
7 percent willingness to use the ECP program. The present
8 data shows greater than 90 percent of those interviewed by
9 the Employee Concerns Oversight Program would use the ECP
10 again. This is particularly significant considering that
11 the survey was almost completely personnel who had used the
12 ECP since last September. This is a particularly strong
13 endorsement of Employee Concerns Program.

14 The average age of the ECP concerns is going up
15 and down over the period of a month. As I said before, it's
16 averaging between 50 and 55 days. While this is adequate
17 and no adverse trend exists, we have an internal target of
18 45 days, and I expect that this will be achieved after Unit
19 3 is back in service, to speak to your earlier question.
20 And again that's a function of staffing, workload, and
21 priority.

22 Okay. We have developed a classification protocol
23 which is a formal process providing logic and criteria for
24 determining whether ECP cases involve 50.7 or
25 chilling-effect activities. Applying this process to 228

1 competed files going back to December of 1996 yielded the
2 following results: 56 alleged potential 10 CFR 50.7
3 concerns; of those, 36 were unsubstantiated, three were
4 substantiated, which I'll speak to a little bit later, 8
5 fell into the indeterminate category, which 7 of those are
6 over a year old. And then we notice that in nine of them
7 during this review require a little bit of additional
8 information to complete their closure.
9 With respect to the chilling effect, 23 were
10 unsubstantiated, 16 were substantiated, eight fell into
11 the -- the same eight into that indeterminate category, and
12 also the same nine requiring just a little bit of additional
13 information to complete their closure.
14 CHAIRMAN JACKSON: So the 101 is different than
15 the 256.
16 MR. AMERINE: The 101 --
17 CHAIRMAN JACKSON: Alleged harassment,
18 intimidation, retaliation, discrimination. All bound up in
19 the 50.7, or are they completely separate?
20 MR. AMERINE: Of the 228, there was a subset that
21 were 101 cases alleging harassment, intimidation,
22 retaliation, discrimination. Of those, 56 --
23 CHAIRMAN JACKSON: Okay. I just wanted to
24 understand.
25 MR. AMERINE: Had potential 10 CFR 50.7 overtones.

1 CHAIRMAN JACKSON: Okay. I just wanted to be
2 sure.
3 MR. AMERINE: Next slide, please.
4 CHAIRMAN JACKSON: So the infrequent means the
5 number that -- you're baselining that to the number of
6 substantiated --
7 MR. AMERINE: Yes.
8 CHAIRMAN JACKSON: Cases. Okay.
9 MR. AMERINE: And this slide, this next slide I
10 think talks to that as well. The number of cases alleging
11 harassment, intimidation, retaliation, discrimination does
12 not indicate an adverse trend. Now as of April 29, the
13 number of concerns received in the month alleging 50.7 HIRD
14 was two. So you can see that trend, downward trend
15 continues.
16 The -- so far the review mentioned before showed
17 three cases from the MOV event in last August that were
18 classified as substantiated potential 10 CFR 50.7
19 violations.
20 Okay. Go to the next slide please.
21 Most of the leadership team which includes all of
22 the management from the vice-presidents to first-line
23 supervisors and even personnel now designated as leads have
24 been through the safety conscious work environment training.
25 CHAIRMAN JACKSON: Everybody at the table.

1 MR. AMERINE: Everybody at the table.

2 [Laughter.]

3 Now if you go to the second bullet, simply stated,
4 a manager who creates a workplace which is receptive to
5 raising concerns, and that's captured in the management for
6 nuclear safety module, one who treats employees with
7 respect, that's in the civil treatment course, and one who
8 understands the requirements of the law, which is provided
9 in the employee relations or the 50.7 training, will have
10 the fundamental skills necessary to establish and maintain a
11 safety-conscious work environment and thereby avoid any
12 retaliation against those employees engaged in a protected
13 activity.

14 Now the last item on that page for recent
15 supervisors hired, promoted or appointed, a Quick Start
16 program has been developed, and it includes a video
17 stressing the important aspects of a safety-conscious work
18 environment, a reading of the safety-conscious work
19 environment handbook, and also being assigned a mentor.

20 This must be accomplished within the first week of
21 the new management assignment. The full scope of training
22 that I just reviewed must be done in the first 90 days after
23 a new supervisor assumes his or her new assignment.

24 Next slide.

25 We have become much more sensitive to recognition

1 of challenges to the safety-conscious work environment in
2 their beginning stages. Early intervention by line
3 management and the various support groups results in
4 resolution if these four significant problems develop.
5 With respect to the second bullet, many different
6 work groups across the site have independently formed
7 assessment groups, organized meetings, solicited assistance,
8 or taken other steps to monitor their actions and to enhance
9 their work environments. These efforts, although less
10 visible and at a smaller scale than the formal program, are
11 extraordinarily important. Such efforts, voluntarily
12 initiated, confirm that the culture has changed and that the
13 message of a safety-conscious work environment has not only
14 been received, but accepted.
15 The people team consists of the Millstone Human
16 Resource Group, Employee Concerns Program Group,
17 Safety-Conscious Work Environment Group, and the Legal Group
18 presently assigned to the site, and with the oversight of
19 Employee Concerns Oversight Panel.
20 As refined, the process is to assist line
21 management in nurturing the safety-conscious work
22 environment, and resolving challenges to it. Performance in
23 the remaining focus area supports restart, and I will
24 discuss that in later slides.
25 CHAIRMAN JACKSON: How were the success stories

1 received?

2 MR. AMERINE: Various ways. For example, I

3 received an e-mail from an employee who just wanted to let

4 me know that that person's concern which was raised over a

5 weekend was responded to by the unit director coming in off

6 of vacation to address that concern, and then that person's

7 operations manager coming in on a Sunday to help follow up

8 on that concern.

9 CHAIRMAN JACKSON: So this is a compilation of

10 feedback items you received in different ways?

11 MR. AMERINE: Yes, ma'am, anecdotal feedback in

12 from the employees that is saying that it's working.

13 CHAIRMAN JACKSON: Okay.

14 MR. AMERINE: This slide shows the key performance

15 indicator for focus areas, and that number has steadily

16 decreased from the -- particularly if you consider the 33 at

17 the end of 1997 to the eight at this time.

18 Let me just define a focus area so we are all on

19 the same page. It's a group or event where those involved

20 are either unable or unwilling to raise and/or resolve

21 issues important to some stakeholder.

22 Recently several active focus areas were assessed

23 to have successfully completed their action plans. However,

24 during the same time frame some safety-conscious work

25 environment cases that were brought to our attention were

1 determined to meet the criteria to become a focus area. So
2 that number, although it's holding constant, really there is
3 some fluctuation there.
4 The safety-conscious work environment organization
5 has evaluated the current focus areas to ensure that there
6 are no issues within those work groups which would
7 jeopardize restart.
8 In fact, all active focus areas are still
9 accomplishing their duties and responsibilities at an
10 acceptable level, and improvement is happening in all areas.
11 Our most recent focus area action -- plans of
12 actions and closure documentation have been improved
13 significantly as we have learned and refined the process.
14 We have revisited and updated older focus area
15 determinations to make sure their documentation also is
16 acceptable.
17 Next slide, please.
18 As Bruce said, the work force at Millstone is
19 empowered and is educated, and that will be the best
20 insurance to make sure there's no deterioration in the
21 safety-conscious work environment. They know their rights
22 and the responsibilities of management.
23 With respect to the second bullet, as part of the
24 safety-conscious work environment readiness letter, we
25 committed to maintaining the infrastructure that we have in

1 place under the Human Services Organization to ensure that
2 we continue the momentum we feel we have established.
3 This includes the present safety-conscious work
4 environment group, the human resources group, the employee
5 concerns program groups. Employee concerns oversight panel
6 is also included in this statement, although it functionally
7 reports to Mr. Kenyon.
8 This internal structure will continue beyond the
9 Unit 2 restart. This group has daily coordination meetings
10 and they will continue. Issues will continue to receive
11 real-time senior management attention. The organization
12 will continue to respond to urgent events affecting the work
13 environment consistent with the established rapid response
14 protocol that we have developed.
15 Events will continue to be analyzed to extract
16 lessons learned and the results factored in remedial
17 efforts.
18 Training on the safety-conscious work environment
19 related matters will continue with emphasis on refresher
20 training and training of new arrivals.
21 Speaking to the third bullet, safety-conscious
22 work environment part of our 1998 to 2000 performance plan
23 which John mentioned earlier, is called the work environment
24 section. This section was attached to the safety-conscious
25 work environment readiness letter that we submitted earlier

1 and has been augmented by a recent submittal.

2 The work environment performance plan consists of

3 three disciplines which are leadership, safety-conscious

4 work environment itself, and human resources. The

5 performance plan consisting of objective performance

6 measures, performance targets, and related action items has

7 been developed. Performance against this plan will

8 determine when, after Unit 2 restart, the human services can

9 begin to evolve into the projected mature organization.

10 As line management gets better and better at

11 nurturing the safety-conscious work environment and

12 recognizing lapses as soon as they occur and taking

13 appropriate preventative or restorative actions, the present

14 extraordinary human services resources can be combined or

15 reduced.

16 Our submittal details the logic and criteria we

17 will use to preclude backsliding and to determine when we

18 can realign the elements of the human services organization.

19 CHAIRMAN JACKSON: But to the end of early

20 detection, you intend to continue to use the performance

21 indicators?

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

23 CHAIRMAN JACKSON: Okay.

24 MR. AMERINE: The fourth bullet speaks to using

25 performance indicators, to answer your question. We are

1 determined that, having made a fundamental change in the
2 conduct of our Millstone environment, we will not tolerate
3 any backsliding or complacency.
4 Consequently, the efforts to enhance the work
5 climate and to instill the attitudes and attributes of a
6 safety-conscious work environment will continue as part of
7 our ongoing longer-term performance plan.
8 Next slide, please.
9 The safety-conscious work environment processes
10 will continue to be improved as we mature. These processes
11 have been formalized in handbooks and flow-charted for ease
12 of use. Lessons learned are factored in.
13 The plan I mentioned before contains provision for
14 initial and follow-up training on safety-conscious work
15 environment matters. We will measure and sustain
16 performance by the conduct of leadership assessments that we
17 mentioned earlier, the conduct of culture surveys,
18 establishment and communication of safety goals, and the
19 development and implementation of safety-conscious work
20 environment guidebook for supervisors.
21 Regarding the organization transition, the plan
22 has established performance measures and targets. Among the
23 relevant targets are the absence of any safety-conscious
24 work environment focus areas by 1999. A 5 percent
25 improvement in the leadership assessment scores when

1 compared to the November 1997 results. And a continuous
2 positive trend in the culture survey results.
3 These performance measures will guide our
4 transitioning from the extraordinary support functions we
5 have today to the permanent human services organization.
6 Organization adjustments over time will be based
7 on performance demonstrated and results achieved against
8 those parameters I just mentioned; increased line management
9 effectiveness resulting in less HR demands, and the ability
10 of employee concerns program to focus primarily on the
11 nuclear safety-significant issues, and self assessments
12 verifying the performance expectations are being met.
13 Speaking of human resources, a survey taken about
14 eight months ago and one taken very recently showed about a
15 factor of two gain in confidence in the human resources
16 organization that we have on site now.
17 And this was demonstrated most recently when there
18 was an issue regarding the appropriate calibration of an
19 instrument, and the line organization when they ran into
20 that problem -- and this was just two nights ago --
21 immediately called the human resource group, which responded
22 right away, and then the plan of action was brought to the
23 executive review board the very next day. We convened a
24 special board. So that demonstrates two things:
25 One, the confidence that the line management now

1 has in those support organizations; and two, the
2 responsiveness of those organizations to make sure matters
3 like that are dealt with efficiently, effectively, and very
4 fairly, because there was a concern through all of that for
5 an employee involved as well as for the technical aspect.
6 Next slide, please.
7 These are our criteria for establishing a
8 safety-conscious work environment, and we have demonstrated
9 that they are met. With a clear understanding of the past
10 and a full appreciation for the challenges of the future,
11 and a firm commitment to sustained excellence, we report
12 that we have achieved a safety-conscious work environment at
13 Millstone station which will support the restart of Unit 3.
14 The advancements we have made are significant and
15 reflect a fundamental change in business practices at
16 Millstone. By no means, however, do we consider the full
17 objective reached or the goal of excellence attained. The
18 objective is to create a healthy and safe working
19 environment which thrives in the long run during periods of
20 sustained power operations, not just in times of intense
21 regulatory scrutiny.
22 Despite the best efforts of well-intended managers
23 and employees, missteps will occur. However, when these
24 problems arise in the future, they will be met by an
25 organization that is prepared with the resources, the skills

1 and the commitment to resolve problems.

2 In the long run, a safety-conscious work

3 environment is most beneficial to our endeavor to safely and

4 efficiently run the Millstone station, to our employees and

5 their morale and motivation, and ultimately to the nuclear

6 industry as a benchmark of what can be achieved with the

7 right mindset.

8 Consistent with our first core value, it is simply

9 the right thing to do.

10 The collaborative efforts of management and the

11 work force have produced an environment in which workers

12 raise concerns with the assurance that management supports

13 their efforts, and with the confidence that the raising of

14 concerns will not result in retaliation.

15 Management has actively encouraged the raising of

16 concerns, rewarded employees who have raised concerns, and

17 disciplined those who failed to meet management's unbending

18 prohibition of retaliation. This is our determined and

19 sincere commitment to Millstone's safety-conscious work

20 environment.

21 CHAIRMAN JACKSON: Thank you.

22 Yes?

23 COMMISSIONER McGAFFIGAN: Excuse me. I had to

24 clear my throat.

25 Mr. Kenyon said earlier that you think you are

1 setting in industry standard now in your safety-conscious
2 work environment and employee concerns program. The issue
3 for a regulator is how long Little Harbor needs to be there
4 observing this process; through Unit 2 restart, perhaps, or
5 perhaps not. Perhaps at that point you intend to transition
6 the organization, as you said at the outset, to less of a
7 unit focus, and again there will be a period of
8 organizational change which you have a plan to manage.
9 But how long, in your judgment, do we need -- and
10 it's our judgment ultimately, but what is your opinion as to
11 having Little Harbor there, and the benefit you get from
12 something off the line? It's sort of the equivalent of some
13 of the checks and balances you outlined earlier that the
14 board and the various committees provide.
15 MR. KENYON: Well, there are several points I
16 would want to make in response to that.
17 First of all, with Little Harbor having been
18 present now for quite some time and being appropriately
19 critical of some of our earlier activities, it was valuable
20 in getting the standards to where they needed to be. The
21 standards are now there, and certainly we believe they are
22 there, and we expect Little Harbor to say that as well.
23 Then the issue becomes implementation of those
24 standards, and we have a period of time now where we have
25 been successfully implementing those standards, but it is

1 not a long period of time, and whereas we think we have
2 established a good environment, I would also say that we are
3 very sensitive to the fragility of that environment as we
4 continue our efforts to strengthen the levels of trust with
5 employees.
6 Now the other thing that's happened is that our
7 employee concerns oversight panel has come into its own in
8 terms of being an effective internal organization, and being
9 very much a check-and-balance and independent review, and
10 the individual who provides leadership to the organization
11 is here today.
12 So we have -- I have more and more confidence in
13 -- I have good confidence in line management, I have good
14 confidence in the programs and procedures that are now in
15 place. I have good confidence in ECOP as a mechanism to let
16 me know very clearly and quickly if something is going the
17 wrong way. So I, frankly, am quite comfortable without
18 Little Harbor today. I'm not here to suggest that Little
19 Harbor ought to leave tomorrow, but I do think that Little
20 Harbor's effort can scale back, and I do think as we develop
21 just more time to show that the track record is clearly a
22 sustainable track record, I certainly don't see the need for
23 -- you know, in my judgment as to how we're doing, and you
24 know, this needs to be an ongoing judgment, but in my
25 judgment as to how we're doing, I certainly don't think we

1 need Little Harbor beyond the restart of Unit 2, and I think
2 a case could be made for sooner than that. Whether I would
3 want to make that case remains to be seen. But I think we
4 are talking, you know, a few months as opposed to another
5 year or so.
6 CHAIRMAN JACKSON: Well, I think the Staff
7 suggestion is six months beyond the restart.
8 MR. MORRIS: And I would also love to hear Little
9 Harbor's view of that, but the EDO suggested six months,
10 which seems reasonable.
11 MR. AMERINE: If I might just add a footnote, I
12 mentioned the work section portion of the 1998-2000
13 performance plan, and in there we plan to continue bringing
14 in an outside agency to look at -- that's independent of
15 everyone else on a coordinated basis.
16 CHAIRMAN JACKSON: Yes.
17 COMMISSIONER DICUS: Is the ECOP a long-term unit?
18 MR. KENYON: Yes. Yes, it is, and that's one of
19 the aspects of the Millstone program that I believe is
20 unique in the industry where you have a cross section of
21 employees that are there to independently critique
22 management's efforts and is part of our program, and we have
23 no intention of changing that.
24 CHAIRMAN JACKSON: Thank you.
25 I think, you know, that it seems you have done a

1 substantial amount. Fragility is always a concern, given
2 the historical perspective, and so having the programs in
3 place, having the proper oversight, including the commitment
4 from management and having an ability to stay on top of it.
5 That's why I was asking the questions about the performance
6 indicators are all critical, I think, and obviously you
7 agree.
8 MR. MORRIS: Yes.
9 CHAIRMAN JACKSON: So why don't we hear from Mr.
10 Brothers.
11 MR. BROTHERS: Thank you.
12 The purpose of my presentation today, as we have
13 talked about, is to characterize the deferred items, to
14 describe to you how we are going to manage them.
15 In addition, I want to demonstrate that Millstone
16 Unit 3 will be ready to return to power operation by the end
17 of May 1998.
18 My presentation will be broken down into three
19 major areas:
20 First, I will discuss in broad terms what we have
21 accomplished during the two years that Unit 3 has been shut
22 down.
23 Second, I will characterize the deferrable items
24 which will remain post-restart, along with the commitments
25 which we have made to communicate our progress in managing

1 the completion of our deferrable items.

2 This I will discuss as the safe return to power

3 operation to Millstone Unit 3.

4 This slide gives a broad overview of our

5 accomplishments during the past two years on Millstone Unit

6 3. Although not one of the topics which we are presenting

7 as complete today, we are in the process of completing the

8 certification of a restored design and license basis for

9 Unit 3.

10 During this shutdown we've also brought our final

11 safety analysis report up to date per current regulations.

12 As a data point we have processed over 600 FSAR change

13 requests during the last two years.

14 We have submitted 26 license amendment requests to

15 rectify identified problems and/or inconsistencies in our

16 technical specifications. We have to date received approval

17 on 24 of the 26 submitted license amendment requests.

18 CHAIRMAN JACKSON: What are the two that are

19 outstanding, Mr. Brothers; do you know?

20 MR. BROTHERS: One associated with inadvertent SI

21 which is tied to a modification we have left to do and the

22 next one associated with pressurizer level.

23 CHAIRMAN JACKSON: And so you're waiting for the

24 approval of those from the NRC?

25 MR. BROTHERS: Correct. We've gotten some RAIs

1 back and forth. We are on track for the 21st on inadvertent
2 SI and the 25th for pressurizer level at this time.
3 Finally, we have essentially completed our
4 procedure upgrade program commonly called "PUP" along with
5 approximately 500 additional procedure changes as a result
6 of our configuration management program.
7 Next slide please?
8 In addition to the restoration of our design and
9 license basis we have accomplished several major material
10 upgrades in the unit. This slide details some of the more
11 significant upgrades that we have accomplished. I want to
12 discuss in some detail the enhancements that we have made to
13 our control room.
14 These enhancements include ergonomically designed
15 operator stations for control operators, unit supervisors,
16 and shift managers. Separation of the work control portion
17 of the control room from the at-the-controls portion in
18 addition of a shift-manager's conference room. The
19 aggregate impact of the control room modifications results
20 in a net reduction in distractions to our operators while
21 increasing the professionalism and improving the work
22 environment of our operations department personnel.
23 This slide gives an overview of the modifications
24 complete during this shutdown. Of the 224 modifications,
25 182 involve physical work and the remaining 42 were

1 administrative in nature. I'll characterize those a little
2 more for you.
3 Out of the 182 that involve physical work 79 were
4 as a direct result of the configuration management program.
5 Of the 42 mods which were administrative in nature, 17 were
6 as a direct result of the configuration management program.
7 This slide also shows some of the more significant
8 modifications accomplished as a result of our configuration
9 management program and modifications which we performed for
10 other reasons such as plant reliability or long-term costs
11 savings. We discussed the CMP-based modifications
12 extensively with the NRC staff and I would like to point out
13 that most of Unit 3 is in the non-CMP area, the first
14 nuclear unit in the United States to accomplish what's on
15 the slide here as generator stader cooling, but that's a
16 global stader cooling, epoxy injection repair to our main
17 generator.
18 In addition, we have replaced all four of our
19 reactor coolant pumps with upgraded 93-A-1 pumps. This
20 upgrade is a result of a joint design effort between
21 Westinghouse and Northeast Utilities to redesign the reactor
22 coolant pump main flange, the number one seal housing and
23 the number one seal housing closure system. We're quite
24 proud of this redesign and we believe we probably have the
25 best reactor coolant pumps in the world.

1 In recognition of our extensive role in solving
2 the RCP locking bolt problem for the industry we would
3 retain a proprietary portion of the redesign of the RCP main
4 flange that will be used to solve this problem throughout
5 the industry.
6 This slide demonstrates why our deferrable items
7 are acceptable for unit restart. As it says, each item is
8 reviewed individually by either out plant operating review
9 committee, our corrective action department, our management
10 review team, or our expert panel prior to being classified
11 as deferrable. In addition to the individual review an
12 aggregate review has been performed by our probabilistic
13 risk assessment or commonly referred to as PRA group. This
14 review used four criteria to review items which affect
15 maintenance rule, risk or safety significant systems.
16 Just briefly going through those criteria, the
17 first criteria is, does the item have an impact on the
18 system structure, or component's ability to perform its
19 intended safety function?
20 Does the item have an effect on the probability of
21 the plant transient? Does the item degrade the operator's
22 ability to mitigate an accident? And finally, does the item
23 impact the ability of the containment system's capability to
24 mitigate the consequences of an accident. If any of the
25 four criteria were met, the item was reclassified as

1 non-deferrable. None of these criteria were met in the
2 review of the deferrable items list, however, ten items were
3 conservatively reclassified as required for restart. This
4 was based upon injuring judgment and a collaborative
5 agreement between PRA and the line management.
6 Nuclear oversight has assessed the overall list
7 and the numbers and scope are consistent with industry
8 standards. I want to emphasize, and the next several slides
9 will show that we will continue to work off deferrable items
10 up to restart and post-restart for our deferrable items
11 management plan which was docketed on March 31st, 1998.
12 Okay. This is where it's going to be a challenge.
13 The next three slides are an attempt to give you numbers and
14 at a high level describe our entire deferrable items. This
15 slide is more correctly referred to as open deferrable
16 items, not necessarily deferrable, and I'm going to describe
17 that in some detail. I have backup slides if we need
18 additional information with regard to age.
19 This is the same format on this slide which I
20 presented on February 19th. Since we are initiating
21 condition reports at a rate of greater than 20 per day, and
22 each condition report generates approximately 2.5 action
23 request, the pre-restart corrective action assignments or
24 the first bullet which are deferrable and open, is expected
25 to continue to rise.

1 The next two slides will provide additional
2 detail, but to make a point here, the 3,687 open corrective
3 actions assignments are out of a total population of 10,013
4 deferrable corrective action assignments.
5 And the 888 open configuration management items is
6 out of a total population of 1,350 deferrable configuration
7 management items. I hope I'll be able to make this more
8 clear on the next two slides.
9 CHAIRMAN JACKSON: Can I ask you a question? This
10 is a random page from your submittal, so it's not totally,
11 so it's not something you've necessarily seen, but it's more
12 a generic set of questions.
13 There's one related to seismic monitor replacement
14 parts not compatible. You talked about developing a BOM,
15 this is just informational, what is a "BOM" for seismic
16 monitoring?
17 MR. BROTHERS: A BOM is a bill of materials.
18 CHAIRMAN JACKSON: Okay.
19 MR. BROTHERS: And so it goes down to the
20 component level for components.
21 CHAIRMAN JACKSON: And I noted that this letter
22 had 52 pages of items removed from the list. Does that mean
23 that these were already addressed?
24 MR. BROTHERS: Either addressed or reclassified as
25 not going to be done at all. Part of what we need to do,

1 and I talked to Commissioner Diaz when he was on site, is go
2 through the list and begin saying, no, versus not now.
3 CHAIRMAN JACKSON: Right.
4 MR. BROTHERS: Much of why we've got such a big
5 list is because we said "not now" versus "no" and so we're
6 starting to do that --
7 CHAIRMAN JACKSON: So you're going to do a more
8 refined look?
9 MR. BROTHERS: Correct. And what I'll talk to in
10 the commitments is two weeks after Mode 2 we're committed to
11 give you the final list of deferrable pre-restart items. In
12 addition, we'll provide you quarterly updates on where we
13 are.
14 The next four categories on this site all have
15 specific goals delineated in operational readiness plan.
16 Corrective maintenance has two goals, less than or equal to
17 500 power block corrective maintenance requests and less
18 than or equal to 350 maintenance rule corrective maintenance
19 requests. The 350 is a subset of the 500 goal. This is
20 expected to be at goal prior to Mode 2.
21 Operator work arounds are presently at 16 vise our
22 goal of ten. This slide shows control room deficiencies at
23 21, as of this morning it is at nine, vise our goal of ten.
24 And temporary mods are at goal 15, we expect to have it at
25 13 prior to restart. All of the above are expected to be at

1 goal prior to entering Mode 2.

2 The engineering backlog is made up of

3 enhancements, on-line work and refueling outage work. It

4 has been reviewed separately by our PRA group.

5 Next slide?

6 The next two slides are intended to further

7 characterize our deferrable items. The message here is that

8 we have completed all of the items required for restarting

9 and a substantial majority of the items which were in fact

10 deferrable.

11 This slide indicates the total population of

12 restart assignments. The first bullet, 12,000 is what's

13 called the significant items required for restart list. Of

14 the 22,000 total assignments, 12,000, or the first bullet,

15 are required to be completed and will be for restart. The

16 first bullet is not part of our deferrable items list.

17 The next bullet, the remaining approximately

18 10,000 deferrable items which we have currently completed

19 more than 6,000 of these assignments and we'll continue the

20 complete these as we move towards restart. The 10,013 minus

21 6,326 is a 3,687 number reported as the total open

22 deferrable items on the previous slide.

23 There are approximately 270 maintenance work

24 orders scheduled to be completed prior to Mode 2. This

25 should be contrasted with greater than 40,000 maintenance

1 work orders completed since our shutdown on March 30th,
2 1996.
3 This slide is a subset of the previous slide. The
4 first two bullets show the status of items which came
5 directly from NU's configuration management program. The
6 first bullet shows that we have essentially completed all of
7 the items which are required for restart as a result of our
8 configuration management program. This 2,283 is a subset of
9 the 12,039 on the previous slide and it's not part of our
10 deferrable items list. The second bullet shows that we
11 begin working off deferrable items which came out of our
12 configuration management program as well.
13 The difference between 1,350 and 462 is 888. And
14 that's the number reported on the deferrable item summary
15 slide as open, deferrable configuration management items.
16 The third and fourth bullets shows our status of
17 our response to the independent corrective action
18 verification project. The third bullet shows our progress
19 in completing the 219 assignments which will be complete
20 prior to entering Mode 2. This item is not part of our
21 deferrable items list.
22 And the fourth bullet also illustrates that we are
23 aggressively working off deferrable items in this category
24 as well.
25 Once again, I believe that these three slides show

1 that we have essentially completed all of the significant
2 items required for restart. We have also completed a
3 substantial majority of those items which are in fact
4 deferrable.
5 Recognizing the past performance of Millstone with
6 regard to improvement plans, we've docketed our commitments
7 via our deferrable items management plan which will be in
8 place post-restart. These two slides summarize the
9 commitments which will be in place post-restart, and let me
10 just quickly go through them.
11 Will provide a baseline of open deferrable items
12 within two weeks of restart. We will disposition all ICAVP
13 or independent corrective action verification project DRs
14 prior to restart from RFO-6. We will submit quarterly FSAR
15 updates vise the requirement of annual. We will also
16 provide quarterly submission of our performance against key
17 issues and deferrable item work down, and those dates have
18 been documented as of the March 31st submittal.
19 The next slide details the submissions of the next
20 two fueling outage license amendment requirements in outage
21 plants.
22 In addition, we will submit a post-outage
23 assessment of our next two refueling outages.
24 Included in the post-outage assessment of our next
25 refueling outage, which is our sixth refueling outage,

1 scheduled right now for in the probably April time frame of
2 1999, will be a submission of our final deferrable items
3 management report.
4 COMMISSIONER DIAZ: Excuse me. What is the total
5 scope of your backlog management plan? Does it include
6 training? What areas are included in it?
7 MR. BROTHERS: Included in there are action
8 requests coming from CRs, NCRs, which is a nonconformance
9 report, DRs that are held over from ICAVP, everything that's
10 in the corrective action program is in fact included in the
11 deferrable items plan.
12 If a training item one way or another gets into
13 the corrective action program, it will go into the
14 deferrable plan.
15 Now there's a pre-restart item portion and a
16 post-restart portion of the deferrable items management
17 plan. But the only reason a training item would get in
18 there is if it in fact had a corrective action component.
19 Shifting gears now to training. This slide
20 summarizes the training that we have accomplished during
21 this shutdown. As of today, we have sent approximately 97
22 percent of all first line supervisors and above to our Forum
23 for Leadership Excellence. The Forum for Leadership
24 Excellence is a two-week program which pulls together the
25 personal aspects of Covey Seven Habits Training and team

1 skills into a leadership improvement program.

2 Configuration management training has been

3 accomplished for 100 percent of our employees and long-term

4 contractors.

5 CHAIRMAN JACKSON: Let me ask you a question, Mr.

6 Brothers. How do you know the training has worked? What do

7 you look for?

8 MR. BROTHERS: In the case of the Forum for

9 Leadership Excellence, one of the keys is keeping it going,

10 and we had follow-up groups and projects that each of the

11 classes had to in fact accomplish and develop follow-up

12 plans for. That went very well until about the November

13 time frame, and we more or less de-emphasized it for

14 November, December, January. We are starting to

15 re-emphasize that now because we recognize the key to this

16 is in fact keeping it going and inculcating the entire group

17 into this way of doing business.

18 CHAIRMAN JACKSON: I guess really what I am asking

19 is do you have a metrics built into performance appraisal

20 that relate to what you expect people to gain from this

21 training, that you then actually assess them against, as

22 part of their -- you know, in terms of how they carry out

23 their jobs as part of their performance appraisals.

24 MR. BROTHERS: In our performance monitoring plan,

25 we have included in what we call a link system components

1 that are primarily with regard to the safety-conscious work
2 environment. There are leadership aspects as well, and they
3 are specifically assessed for each individual, both
4 supervisory and non-supervisory.
5 MR. MORRIS: And the leadership assessment is
6 clearly another key input.
7 CHAIRMAN JACKSON: Okay. And that's linked to the
8 actual training?
9 MR. MORRIS: Yes, exactly.
10 CHAIRMAN JACKSON: Okay.
11 MR. BROTHERS: Okay. As I said, the configuration
12 management training has been accomplished for 100 percent of
13 our employees and long-term contractors. More extensive
14 training in this area has been accomplished for areas such
15 as design engineering and tech support engineering. This
16 training is a central part of our 50.54 Foxtrot question 4
17 response to ensure that our design basis and licensing basis
18 is maintained on a going-forward basis.
19 Enhanced 50.59 or safety evaluation training has
20 been completed for personnel performing safety evaluations
21 or safety evaluation screens. This, along with a continuing
22 effective presence of our nuclear safety assessment board,
23 safety evaluation subcommittee, has significantly raised our
24 performance in the area of safety evaluations and safety
25 evaluation screens.

1 Finally, extensive operator training has been
2 accomplished in our operations department. This training
3 includes training in all modifications which affect the way
4 the operators operate the plant. A trio of reactivity
5 management conservative decision-making and start-up power
6 and ascension training has been completed for all licensed
7 and non-licensed operations personnel.
8 All of this training is in addition to the
9 safety-conscious work environment training previously
10 discussed by Dave Amerine.
11 This slide shows our organization's readiness
12 assessment as of 4/21/98. This methodology complements the
13 nuclear oversight restart verification plan by assessing
14 departmental readiness, whereas the nuclear oversight
15 restart verification plan assesses issue or programmatic
16 readiness.
17 The easiest way to make this distinction is on
18 this slide, when you look at some corrective action,
19 corrective action on this slide is assessing the
20 effectiveness of our corrective action department. In the
21 nuclear oversight restart verification plan, they are
22 assessing the effectiveness of the corrective action process
23 across the station. So there's a complementary aspect to
24 this to the NORVP.
25 With the above explanation in mind, let me discuss

1 the one department which assesses as not yet at goal but
2 tracking to satisfactory for Millstone Unit 3.
3 Work planning and outage management has assessed
4 its tracking to satisfactory based upon schedule adherence
5 not yet being at our operational goal, and we have two: 75
6 percent of our scheduled activities starting on time, and
7 the second one, 70 percent of scheduled activities completed
8 on time.
9 Our current percentages are 43 and 37 percent,
10 respectively. This week is the second week in which we have
11 transitioned into our on-line or 12-week rolling schedule,
12 and we are expected to be at goal prior to entering Mode 2.
13 We expect all departments to remain at goal, and we are
14 planning to be at goal prior to entering into Mode 2.
15 CHAIRMAN JACKSON: Have you gotten to the nub of,
16 you know, what's inhibiting you in that area in terms of
17 starting on time and completing on time?
18 MR. BROTHERS: Yes, we have. The nub, as you
19 referred to it, is the operations department work release
20 process is making a decision at the shift level not to
21 release work that was planned, and we sent the respective
22 managers off site two days ago to address exactly that, and
23 what we are doing to address that is pulling one of our most
24 experienced shift managers off shift to work with work
25 planning to augment that planning aspect.

1 We already had three SROs in work planning, and we
2 are now augmenting that with a shift manager who is aware of
3 what the problems the shift is seeing in releasing work.
4 CHAIRMAN JACKSON: Okay. As you have heated up,
5 had you had any chemistry clean-up problems?
6 MR. BROTHERS: Chemistry clean-up? Not yet. We
7 have had some issues with regard to our increased
8 conformance to DEP regulations, and -- but it's not
9 chemistry clean-up. The condensate system has been on long
10 recycle for some time. It's now feeding forward. We don't
11 have a chemistry problem at this time. We do have ETA
12 injection on the secondary side which is ethanol amine,
13 which is -- cuts out the iron transport, so we don't expect
14 a problem.
15 Final slide, please.
16 In summary, Unit 3 will be ready to resume safe
17 operation by the end of May. As I stated earlier, this is
18 based upon the design and licensing basis being
19 substantially restored. Our material condition is very
20 good, and all required modifications will be completed prior
21 to entering Mode 2.
22 Our deferrable items have been reviewed for
23 individual and risk-based aggregate impact, and are
24 consistent with industry standards.
25 Finally, the overall organization is adequately

1 staffed and qualified to support Unit 3's return to power
2 operation.
3 This concludes my presentation. If there are no
4 further questions, I will turn it over to Marty Bowling to
5 discuss management oversight and controls.
6 CHAIRMAN JACKSON: Any questions? Please.
7 MR. BOWLING: Good morning.
8 CHAIRMAN JACKSON: Good morning.
9 MR. BOWLING: If I could have the first slide,
10 please.
11 Today I would like to discuss with you an area
12 that has been very important to our recovery effort,
13 critical self-assessment. I can tell you that the entire
14 Millstone work force team recognizes that critical
15 self-assessment is the key to improved performance and
16 preventing complacency, and that is why self-assessment has
17 been designated as one of the 16 key issues.
18 The key elements of effective self-assessment
19 which have been accomplished at Millstone are shown on this
20 slide and encompass promoting a questioning attitude, which
21 is also fundamental to our achieving a safety-conscious work
22 environment; lowering the threshold in identifying issues in
23 order to find problems earlier, before they become more
24 significant; and setting and raising standards to compare
25 our performance to the highest standards, and once that

1 level is achieved, to raise the bar.

2 Chairman Jackson, going back to your earlier

3 question, I think is a good example of the raising the bar

4 with respect to corrective action, and as Unit 3 goes into

5 operation, the performance goals, 3 percent overdue,

6 completion of corrective action in 120 days, and how that

7 will be impacted with the still ongoing recovery of Unit 2,

8 which has the similar corrective action success goals.

9 What we are going to do, we are going to raise

10 that standard on Unit 3. The standard to -- for recovery

11 and restart is not acceptable for us for going forward into

12 operation. So as we go into operation, that standard will

13 be lowered to 1 percent overdue, and 90 days for completion

14 of corrective action. And the organization will be judged

15 against that on our way to what is really acceptable, and

16 that's nothing overdue.

17 The Millstone self-assessment program that has

18 been developed and implemented during this recovery is

19 comprehensive. There are sitewide employee support and

20 implementation of the program. Key characteristics of their

21 program include formal annual plans; dedicated coordinators

22 in each of the units; sitewide procedure to provide

23 consistent direction and format; training of employees; and

24 use of INPO and industry experts to set and raise standards;

25 and frequent self-assessment of the program effectiveness.

1 More detail on this key issue is provided in the
2 issue book which was submitted to you on April 23rd.
3 CHAIRMAN JACKSON: How big a change is this for
4 the station?
5 MR. BOWLING: The self-assessment program? Having
6 the sitewide -- the program has evolved over the recovery
7 from not having a program, which was, of course, a key
8 causal factor in the degraded declining performance, to
9 individual units starting programs to evolving to a common
10 program for the site that's embraced and where each
11 department has its annual plan, and the activities of
12 self-assessment.
13 This next slide, I think, may go to the heart of
14 your question. This slide shows the results obtained from
15 440 workers, or approximately 15 percent of the on-site work
16 force. The survey, incidentally, was sent to about 20
17 percent, so -- or about 600, so a very good response, which
18 was voluntary.
19 The survey, which was taken in March, was directed
20 at understanding worker support of and involvement in
21 self-assessment. The results provide meaningful insight
22 into whether Millstone has been successful in instilling a
23 questioning attitude into its culture.
24 The results from this survey are encouraging and
25 correlate well with the results from the Little Harbor

1 structured interviews on self-assessment, and questioning
2 attitude.
3 With respect to the specifics, a very high
4 percentage of the work force has participated in at least
5 one self-assessment, much greater than 91 percent, of which
6 three -- 91 percent have participated in three or more
7 assessments during the last six months, and I think that is
8 the fundamental change, is that we have the whole work force
9 engaged in self-assessment.
10 94 percent see useful results being attained from
11 self-assessment, which correlates well with the 92 percent
12 obtained in the latest Little Harbor interviews. 83 percent
13 indicated that they are being made aware of self-assessment
14 results.
15 Now this is a lower percentage than recorded by
16 Little Harbor, and an area we are now focusing on.
17 And finally, 94 percent had confidence that
18 corrective actions would be taken.
19 Millstone has also continued to lower the
20 threshold in identifying problems. The number of condition
21 reports written to identify a potential nonconforming
22 condition has increased remarkably during this recovery.
23 This is a direct result of the questioning attitude that
24 characterizes our work force at Millstone.
25 Millstone is also systematically looking for

1 issues before they become more significant by conducting a
2 wide range of formal self-assessments that encompass all of
3 our organizational functions and programs. These formal
4 self-assessments are in addition to the ongoing plant
5 walkdowns and training observations expected from good
6 management practices.
7 For the self-assessments completed to date in
8 1998, a strong focus has been placed on assessing the
9 adequacy of corrective actions, safety evaluations, and
10 configuration management controls.
11 In addition, the self-assessment program itself is
12 periodically assessed against the performance objective
13 criteria contained in INPO 97-002.
14 For Millstone Unit 3, the remaining 1998
15 self-assessment program will focus on sustaining performance
16 post-restart for both the key site issues and the Unit 3
17 operational organization.
18 CHAIRMAN JACKSON: Are these self-assessments done
19 by one or two-person teams, or how are they done?
20 MR. BOWLING: Within the departments, generally
21 it's a two to three, a small team. Some of the programmatic
22 issues are three or larger team.
23 CHAIRMAN JACKSON: I see.
24 MR. BOWLING: We'll be periodically providing the
25 NRC the results of these performance assessments, including

1 key operational performance indicators as part of the Unit 3
2 sustaining performance plan.
3 At this point I want to make clear that we are not
4 perfect. Results from our own assessments, external reviews
5 and, in some cases, NRC inspections have identified areas
6 that we missed, but we have learned from these experiences
7 by expanding the scope of our current efforts and, in many
8 cases, doing additional scope.
9 Several recent examples for self-assessment has
10 been taken and include review of all significant Unit 3
11 modifications implemented during this outage to make sure
12 the problems similar to those found on the RSS modifications
13 are not present.
14 These effort encompassed the review of 194 design
15 packages that had been undertaken on Unit 3 over the last
16 several years.
17 In addition, all of the condition reports -- and
18 there are thousands of them -- that pertain to engineering
19 performance were screened to determine basic causal factors
20 so that this self-assessment team would be focused as they
21 went into these modification packages on what to look for.
22 And then, in addition, we took all of the various
23 modification packages, and there are a number of them, on
24 the RSS system itself and did the independent
25 self-assessment review.

1 CHAIRMAN JACKSON: So all of these
2 self-assessments were post-RSS situation?
3 MR. BOWLING: Yes; right.
4 CHAIRMAN JACKSON: Propagating into the lessons
5 learned from them?
6 MR. BOWLING: Right. In addition to the direct
7 root cause on the RSS vibrational failure. This is a scope
8 expansion part of it.
9 Of course, we were interested in two things: What
10 is the overall quality of the engineering that has been
11 performed on Unit 3? And as you know, that's been done not
12 only by our in-house staff, but by a number of architect and
13 engineering and other specialty firms.
14 Also we were interested in the effectiveness of
15 our configuration management reviews which were to catch and
16 to fix problems of this nature.
17 And, finally, we wanted to understand if we were
18 over-relying on our last barrier, the testing, to catch
19 design problems. And the results of that, we did find one
20 or two where that was evident, and -- but the vast majority
21 of the design was deemed to be of acceptable quality.
22 CHAIRMAN JACKSON: What is your judgment about
23 engineering?
24 MR. BOWLING: The -- my bottom line judgment is
25 that our engineering quality has found and is capable of

1 finding the significant issues and taking the corrective
2 action to address those from a safety standpoint. But by
3 the same token, this recovery outage has far and large
4 impacted our technical resources. It's been a very, very
5 technical outage versus a physical modification outage.
6 Any time that we have the engineers at that level
7 of work requirements leads to smaller problems, particularly
8 in the attention to detail, calculational errors, and minor
9 administrative nonconformances. And so we see that in well
10 above any standard that we have. So it's attention to
11 detail needs, needs attention.
12 A second example of compliance -- a second example
13 are review of compliance to the administrative or Section 6
14 of the technical specifications. After several findings
15 were identified by the NRC, our review has been 100 percent.
16 The third example is additional review of the FSAR
17 accuracy from the perspective of the interface between the
18 NSSS and the architect-engineer design scopes, based on the
19 ICAVP contractor-identified discrepancy reports.
20 There are many other examples, but you should have
21 confidence that Millstone now has the culture that wants to
22 learn from its mistakes.
23 A key assessment tool that is being used is the
24 unit windows. We have shown you this window at several of
25 our previous meetings, and Mike Brothers just also talked

1 about it, because it rolls up our overall unit
2 organizational readiness for restart.
3 You should know that a comprehensive set of
4 criteria and evaluation have fed into this roll-up. This
5 approach will be transitioned to an organization that is
6 operating. The power of this tool is that it allows
7 management to set and communicate the standards.
8 The way I look at this is that all green windows
9 mean that the organization has met excellence as defined by
10 its management. In order not to have complacency set it,
11 management must continually tighten or raise the acceptance
12 criteria for each window, and that's exactly what we are
13 going to do. In doing so, management provides a systematic
14 approach and a powerful communication tool for raising
15 standards. The next time you see this window, it's going to
16 be yellow and some red.
17 I have talked up to this point on the
18 self-assessment program. The next several slides show the
19 effectiveness of the program.
20 The first critical success criteria is shown on
21 this slide and demonstrates that a high percentage of the
22 potentially nonconforming conditions are being identified by
23 the Millstone work force. This is an especially important
24 conclusion, given the unprecedented amount of the NRC and
25 independent third-party inspection being performed at

1 Millstone.

2 With the questioning attitude and high standards
3 now being exhibited at Millstone, you should have high
4 confidence that Millstone can find its own problems. Even
5 more important is the fact that Millstone is finding those
6 issues that are most important to nuclear safety.

7 The Millstone Unit 3 reviews conducted to restore
8 conformance to the design and licensing basis have been
9 extensive. The third party ICAVP and NRC inspections have
10 provided additional assurance that all important safety
11 issues have been identified and are being corrected.

12 The next slide shows our self-assessment of
13 corrective action effectiveness. It just goes without
14 saying that in order to have an effective self-assessment
15 program, you must have an effective corrective action
16 program as well. Our current assessment indicates that we
17 still have not met our current standards for backlogs and
18 organizational readiness, although considerable progress has
19 been made. Post-restart, the criteria for each of these
20 areas will be refocused and heightened as we raise the
21 standards.

22 Although I will talk in more detail about
23 corrective actions at our next meeting, I wanted to show you
24 where we now stand on fixing items that have been
25 identified. As you know, significant items identify

1 Millstone, NRC or third party independent contractors that
2 affect safety, licensing basis, design basis, conformance or
3 compliance with NRC regulations, have or will be completed
4 prior to restart. But, in addition, a substantial amount of
5 other improvement items are being completed.
6 To reinforce that point that Mike Brothers
7 discussed, 63 percent of the assignments that could be
8 deferred post-restart, in accordance with NRC criteria, are
9 already completed.
10 In addition to the formal self-assessment programs
11 and the high questioning attitude of Millstone employees, we
12 have also established a multi-management review process to
13 both review performance and to raise standards. These
14 processes are discussed in more detail in our March 31st
15 response which was provided pursuant to 10 CFR 5054(f).
16 Many of these processes were also evaluated by the NRC in
17 the 40500 and OSTI inspections.
18 I have categorized these management processes in
19 three broad areas which are shown in this and the next
20 slide. The most important review in standards raising in
21 the safety standards area have been in the preparation of
22 safety evaluations. This has been accomplished through the
23 Plant Operating Review Committee and the Nuclear Safety
24 Assessment Board raising of standards. The safety
25 evaluation process, program and training have been enhanced.

1 Safety evaluations performed when the organization was at
2 lower standards have been re-reviewed and, if necessary,
3 brought up to standard. And self-assessments, including an
4 INPO assist visit, were conducted.
5 As a result, the quality of safety evaluations has
6 significantly improved. For example, the Nuclear Safety
7 Assessment Board has evaluated the quality of the safety
8 evaluations it has reviewed over the past two years. In
9 1997, 776 safety evaluations were reviewed, with only one
10 rated unsatisfactory in the second quarter, that was in the
11 second quarter of '97, and 26, or approximately 3 percent,
12 rated as needing improvement. And when it needs improvement
13 it is sent back to the Plant Operating Review Committee so
14 that they know that they have approved something that didn't
15 meet the higher level review standard. Through the first
16 quarter of 1998, all safety evaluations have been rated
17 satisfactory on Millstone Unit 3.
18 To accomplish this performance, standards have
19 been set and reinforced, especially by the Plant Operating
20 Review Committee. For example, Unit 3 has tabled with
21 comments about 10 percent of the safety evaluations that are
22 reviewed. As a result, and since most of these come out of
23 the engineering organization, Unit 3 engineering has gone
24 through a quarterly self-assessment of its safety
25 evaluations and safety screens, performed by a supervisory

1 group.

2 The results from these self-assessments show a
3 decrease of 41 percent of the documents receiving a weak
4 grade in mid-1997 to only about 2 percent receiving a weak
5 grade in March of '98.

6 CHAIRMAN JACKSON: This Independent Safety
7 Engineering Group is specific to Unit 3?

8 MR. BOWLING: The ISEG is required by the Unit 3
9 technical specific. It is located in the Nuclear Site
10 Organization, so it has the capability to look broader
11 across the site, but its regulatory requirement is for Unit
12 3.

13 The Unit 3 engineering group is also reviewing
14 independently all of its safety evaluation screens. These
15 are the screens that determine whether a detailed safety
16 evaluation under 5059 is required. And each of these is
17 independently reviewed prior to approval. Also, the
18 responsible engineering supervisor is attending the Plant
19 Operating Review Committees which are reviewing his group's
20 prepared safety evaluation.

21 At the Nuclear Safety Assessment Board level, five
22 of the officers, including myself, Mike, Dave and John, who
23 are here today, spend routinely one and a half days each
24 month on safety reviews of both specific technical items and
25 the functioning of programs important to ensuring nuclear

1 safety.

2 Finally, we are now initiating an additional
3 training of up to three days for all Millstone workers who
4 perform safety evaluation screens or prepare safety
5 evaluations. You can have a high confidence that if a
6 change will result -- there's an unresolved safety question,
7 it will be identified, and that if a change is unsafe, it
8 will not be made.

9 In the area of program standards, the dedicated
10 Independent Review Team Group has been used to look at a
11 number of diverse areas that provide insight on management
12 and organizational effectiveness. These reviews range from
13 significant operating issues to critical program reviews of
14 operator training, self-assessment, configuration management
15 and the safety evaluation program.

16 It is especially noteworthy that in the area of
17 human performance standards we have strong and committed
18 executive participation from the Executive Board which
19 covers any actions that may not be consistent with the
20 safety conscious work environment and the Executive Training
21 Council, which provides oversight of changes to the training
22 program.

23 In addition, management has conducted stand downs
24 and coaching to improve human performance in the areas of
25 procedural compliance and personnel safety. With respect to

1 human performance, the key performance indicators have been
2 developed for this important area. Our goal here is that 95
3 percent of the human performance events will be of low
4 significant or precursor events, that is, they are caught
5 either by self-checking or the first possible barrier in the
6 process, as opposed to a near miss, which multiple barriers
7 have failed or an actual event.
8 CHAIRMAN JACKSON: To what do you attribute the
9 drop off between February and March?
10 MR. BOWLING: On Unit 3 it shows we are not yet
11 hitting our goal. We have had several operational events
12 that were previously discussed this morning, and the level
13 of activities that have increased that are new and different
14 relative for the site since it has been in the recovery
15 period.
16 CHAIRMAN JACKSON: I mean do you think -- but I am
17 talking about in this specific period. Do you see that as
18 related to the push to restart?
19 MR. BOWLING: I don't see it as -- particularly
20 the operational events, which we looked at very, very
21 closely through structured interviews with all the people
22 affected, and schedule driven was not a factor. However,
23 level of activity is definitely.
24 Now, in order to address this issue, we plan to
25 accomplish this by shifting the focus of our organization

1 from recovery to operations. In addition to management
2 focus on operations, we will also be addressing attention to
3 detail issues in order to raise standards. This will
4 require setting a more realistic expectation and schedule
5 for engineering and taking the lessons learned from the
6 ICAVP reviews to improve our critical calculations and other
7 corrective actions from an attention to detail standpoint.
8 My overall assessment, however, at this point is
9 that Millstone human performance is acceptable for the
10 conduct of safe operation but still requires substantial
11 management focus to meet the high standards that we have
12 set. Procedure adherence is achieving our goal but
13 management focus is still being given, especially in the
14 area of administrative program procedures.
15 Finally, two new organizations have been
16 established by management to self-assess and raise standards
17 in the critical area of configuration control. Unit
18 configuration management teams consisting of about 10
19 personnel each have been implemented on Units 2 and 3.
20 These groups monitor the change process in the unit to
21 ensure conformance to design and licensing basis.
22 The engineering assurance group self-assesses the
23 implementation and effectiveness of the design control
24 program which is a critical element of overall configuration
25 management.

1 CHAIRMAN JACKSON: Are these temporary or
2 permanent organizations?
3 MR. BOWLING: At this point we have no plans to
4 change the organizations that we are working on to evolve to
5 they are included in that organization.
6 In summary, I believe that Millstone has
7 demonstrated an effective management self-assessment
8 program. The key elements for effectiveness, employee
9 questioning attitude, a low threshold for
10 self-identification, and a desire to learn from our
11 mistakes, a comprehensive formal program, a multi-layered
12 and tiered management oversight process, and a leadership
13 team committed to raising standards are in place and
14 functioning.
15 You can have high confidence that the
16 self-assessment is effective at Millstone and will support
17 the conduct of safe operations.
18 If there are no further questions?
19 CHAIRMAN JACKSON: Commissioner Diaz?
20 COMMISSIONER DIAZ: Yes, I have a comment and a
21 question. First, I was reassured to hear from you that you
22 don't believe you are perfect, I was beginning to be
23 concerned.
24 But, second and more seriously, throughout this
25 presentation and these previous one, we have seen a very

1 robust recovery organization that has many layers and has
2 many ways of, you know, cross-reference, cross-checking and,
3 of course, that has helped you put this work together.
4 But how are you going to be sure that the
5 functions are captured when you go to a more probably
6 effective, more efficient operations organization? Is that
7 something in your plan that --
8 MR. BOWLING: Well, I think that has really
9 incumbent on the leadership team. I think you heard Bruce
10 Kenyon say the balance in the organization is critical.
11 My entire background is an advocate of the
12 multi-layer, multi-tiered safety nets. I come from that
13 background and I am factoring that into the new
14 organization.
15 COMMISSIONER DIAZ: Mr. Kenyon.
16 MR. KENYON: Well, we will take each step
17 carefully. As I indicated in my remarks, I also am a strong
18 believer in checks and balances. So we are not going to do
19 anything to take away the checks and balances. We could
20 take an organization that functions on Unit X and an
21 organization on Unit Y and put it together for greater
22 efficiency, but we will not take away the checks and
23 balances.
24 CHAIRMAN JACKSON: Mr. Brothers, do you have any
25 comments?

1 MR. BROTHERS: Yes. I would agree with that, and
2 add one additional thing that is very high on my list, and
3 that is the use of performance indicators. We, the
4 organization, when we started in the recovery, viewed
5 performance indicators as a report card versus a management
6 tool, and they are learning now that it both a report card
7 and a management tool, and I believe that that will be
8 fundamental in keeping those robust going forward.
9 We have 70 performance indicators that we review
10 on a weekly basis. Most of those will transition directly
11 into an operating status and that will prevent it as well.
12 CHAIRMAN JACKSON: So, again, it comes down to
13 programs and organization, oversight, including management
14 committee, and the use of performance indicators to stay on
15 top of things.
16 MR. MORRIS: And a cultural shift in how you
17 believe in that.
18 CHAIRMAN JACKSON: Okay. We are going to hear
19 from Mr. Streeter.
20 MR. STREETER: Thank you. At the December 1997
21 briefing of the Commission, we expressed our view at that
22 time that nuclear oversight was ready to support restart.
23 The information that I am going to present to you today,
24 part of which we have already discussed, will indicate to
25 you the basis, my basis for being here today to confidently,

1 and without reservation, reaffirm that we are ready to
2 support restart.
3 In addition to that, I will share with you efforts
4 that we have underway that will assess the readiness of the
5 other organizations at Millstone to support a safe restart
6 and future safe operations.
7 The nuclear oversight function today is -- it is
8 remarkably different than it was two years ago. I don't
9 know how to say it other than that. And that --
10 CHAIRMAN JACKSON: Did it exist two years ago?
11 MR. STREETER: Pardon me?
12 CHAIRMAN JACKSON: Did it exist two years ago?
13 MR. STREETER: Yes, it did. I can't tell you that
14 it existed -- I don't know if it had that precise title,
15 but, yes, it did exist. I guess that's the point that I am
16 trying to make.
17 A couple of years ago, as has been referred to
18 before, the oversight function was tolerated as a regulatory
19 burden, viewed as having little value. Conversely, today we
20 see we enjoy the support of management. We have a robust
21 organization that is increasingly being valued and
22 appreciated by the line.
23 I am going to say a lot today about the
24 receptiveness of the line to the oversight function and the
25 oversight function becoming an integral part of the team.

1 But let me assure everyone here, we understand our role. We
2 understand our role of objectively challenging activities
3 that are going on, and to evaluate them against high
4 standards. And I don't want there to be no mistake about
5 that. No one in my organization misunderstands that.
6 However, you can do that professionally and
7 without doing it in an acrimonious manner and a
8 controversial approach. So you can work within a team
9 environment and yet maintain the objectivity necessary to
10 carry out our regulatory responsibilities, and we are doing
11 that.
12 The new leadership team at the table here today
13 has emphasized its expectations to all members of the line
14 organization of the importance it attached to the nuclear
15 oversight function and its expectation that it will become
16 an integral and important part of the project.
17 Going yet beyond that, management has taken the
18 step to empower Nuclear Oversight to set standards above the
19 minimum requirements. Faced with this new support of
20 management and this challenge to establish and assure
21 adherence to increasingly higher standards, the Nuclear
22 Oversight Organization is reinvigorated with this sense of
23 value and they are responding. They are responding through
24 the calibre of their performance and, through that, they are
25 commanding the respect and the acceptance of the

1 organization.

2 The measures we have taken to improve the
3 acceptance and performance of Oversight have clearly
4 increased the standards of the work activities in making a
5 contribution to Millstone, the recovery, that I will go
6 through in a little bit.

7 But I also want to state one thing right up front,
8 don't view my positive remarks and my confidence in the
9 Nuclear Oversight Organization to Support Restart to be
10 overconfidence that might build in complacency and think we
11 are perfect. We aren't. We have got a long ways to go. We
12 are what we consider to be an elite level of performance,
13 but we are going to get there, and we will work toward that
14 end. But we have a lot of self-assessments, continuing
15 self-assessments and have to continue to foster a continuous
16 improvement attitude among our staff. And that not only
17 holds true with the Nuclear Oversight, but you have heard
18 similar comments from the other organizations as well.

19 In recovering the capability of the Nuclear
20 Oversight Organization, that was really governed by two key
21 objectives. One is to reestablish the capability of the
22 organization itself. And then the second one is to apply
23 that capability to an assessment of the organizations to
24 give them critical assessments so that they can take the
25 necessary corrective action to increase their level of

1 performance and assure that we were ready for return to
2 operations.
3 The first effort was accomplished by a formal,
4 what we call, entitled, the Nuclear Oversight Recovery Plan.
5 The second was accomplished by what you might say, a subset
6 of that, which was Nuclear Oversight Restart Verification
7 Plan, where we assess the performance of other
8 organizations.
9 The Nuclear Oversight Recovery Plan was developed
10 by reviewing the results, comments of Oversight's
11 performance, it was contained in a variety of documents,
12 including NRC inspection reports, NU observations and other
13 external assessments relating to the criticisms or
14 opportunities that Oversight had to improve its performance.
15 What we did was, in addressing those, those issues
16 in a formal program, we built upon the experience that other
17 sites who have gone through similar recoveries. We built
18 upon their experience in coming up with a formal recovery
19 plan to delineate each one of those shortcomings and coming
20 up with actions to remedy them.
21 Through that Nuclear Oversight Recovery Plan, it
22 has resulted in the transformation of the organization.
23 That transformation, as I alluded to before, it has been
24 manifested in improved performance and, actually, in the
25 field demonstration of the capability of the organization.

1 Through the completion of this Nuclear Oversight Recovery
2 Plan and the demonstration of the capability in the field,
3 this enabled the Nuclear Safety Assessment Board, as has
4 been mentioned before, to say that the Nuclear Oversight is
5 prepared and capable of performing its regulatory functions.
6 The Nuclear Oversight Recovery Plan, it was
7 initiated in 1996. It was detailed and it included almost
8 200 action items, 179, and it had several important
9 elements, one of which was to assure that management
10 expectations at the highest level were expressed on the
11 value and importance of oversight in the organization. We
12 defined the roles and responsibilities of folks within the
13 Nuclear Oversight, so there is no misunderstanding on their
14 part about what their responsibilities were. We increased
15 the staffing and changed the staffing to make it a more
16 effective organization. We have improved our processes and
17 procedures to assure alignment with past commitments that we
18 have made from Nuclear Oversight, and we have instilled some
19 measurement and feedback tools to assure us that we are on
20 the right track.
21 I would like to mention that this recovery plan,
22 when it was formulated, included the involvement of my
23 fellow Millstone officers. They come from a variety of
24 backgrounds, with some plants that had very respectable
25 performance, and we used that information, because they had

1 views on what an effective Oversight Organization, how it
2 functioned. We used that to build into the plan their ideas
3 on how we could make nuclear oversight better.
4 Through all that, we ended up closing the Nuclear
5 Oversight Recovery Plan in 1997, December 1997. Now, what
6 that means is, and I'll get into this in a minute, the
7 Nuclear Oversight Recovery Plan initially had several
8 provisions for assessing performance. We took those
9 provisions, incorporated them into the separate Nuclear
10 Oversight Restart Verification Program, and we also have,
11 through the assessments we conducted, the needs for
12 training, have some follow-on activities that we will
13 capture in our tracking system to assure they are completed.
14 Such as assuring that our surveillance personnel are also
15 qualified for auditors and vice versa, so it increases the
16 flexibility and the value of our organization.
17 Speaking to the transformation of the nuclear
18 oversight organization as a result of this plan, there are
19 some very, very significant things I would draw your
20 attention to.
21 One is we have about doubled our staff in this
22 period. Now this isn't just because we also added people to
23 the functions that existed at that time such as in the audit
24 and surveillance area. But we also added some functions
25 such as the Independent Safety Evaluation Group that Marty

1 mentioned before, and in a few other activities like that.
2 Through this staff enhancement -- now this is what I
3 consider to be a vital component of any effective
4 organization, and I'm very proud to say that about
5 two-thirds of those individuals have four-year technical
6 degrees. Now this is not taking credit for -- not double
7 counting, taking credit for bachelor's degree and advanced
8 degrees, it's not taking credit for the two-year technical
9 degrees, but I can say that two-thirds of that organization
10 have this kind of background.
11 Now the reason that's so important is to have
12 credibility and to have acceptance for people that you're
13 overseeing. They have to have an appreciation that you know
14 what you're talking about. So this is the reason that this
15 is vitally important, and through my experience I know of no
16 other nuclear oversight organization or comparable
17 organization that approaches this type of credentials in
18 their -- from an academic standpoint.
19 Now 13 or about 10 to 15 percent are professional
20 engineers. Now here's another thing that I view as -- I'm
21 very proud of and I think is extremely significant for the
22 success of Millstone. About a third of these folks have
23 either been licensed as senior reactor operators or
24 operators, not only the Millstone, but we get a variety of
25 backgrounds from other plants in the country, or they have

1 been -- have gone through a certification process.

2 Now my experience is that I was happy in an

3 organization like this if I could somehow work up to ten

4 percent. Here we're at almost a third of our total staff.

5 This is vitally important to us now, especially now, as we

6 are going into a situation where we are restoring Unit 3 to

7 operations that we have folks who are capable to assess the

8 quality of operations that have been there, done that, so to

9 speak and know the right standards performance. As a matter

10 of fact, right now we have 24-hour coverage on Unit 3 as it

11 is proceeding on up the ladder by many of these same people

12 that have these operating experience backgrounds.

13 Now in addition to that, in addition to those

14 credentials, we have increased the overall industry

15 experience level of those folks, and I would say on the

16 average of the total organization excluding administrative

17 staff we're probably in the vicinity of 20 years' experience

18 of these folks.

19 Now this experience background is from -- it comes

20 from a variety of sources. Again I'll say not only on

21 Millstone, because we made a very, very obvious attempt to

22 gather experience not be tunnel-visioned just in looking --

23 using Millstone experience, but going outside and getting

24 ideas and better ways of doing business so we have it from

25 other plants, we have it from INPO, and we have it from the

1 NRC. So we've got a lot of varied perspectives on how to do
2 business, and they're helping us.
3 CHAIRMAN JACKSON: Yes.
4 COMMISSIONER McGAFFIGAN: One of the groups this
5 afternoon is going to -- the Citizens Regulatory Council --
6 has a bullet labeled personnel turnover rates. As you built
7 up, have you also had a high turnover, or can you -- do you
8 know what that would be referring to?
9 MR. STREETER: I can guess, and if that's
10 acceptable, I'll do that. We have over the past year had a
11 what I'd consider to be a high turnover at the director
12 level and at the top leadership level in the organization.
13 And it's just not one or two, but we've had -- for a variety
14 of reasons people have had in some cases four or five bosses
15 in a year. I believe that is stabilized now and has been
16 for, well, the last change we've had in that area was about
17 a month ago when one of our directors was -- resigned and we
18 replaced him.
19 I can tell you, though, that I believe that right
20 now that we have a very, very competent leadership group
21 within nuclear oversight, and I believe that that turnover
22 has stabilized.
23 MR. KENYON: If I could just add to that, I don't
24 think the turnover rate has been excessive, but I do think
25 that in general the turnover has been as part of our process

1 to strengthen the organization. We have a much stronger
2 organization today than we did two years ago, and part of
3 that has been based on some people leaving and some others
4 coming.
5 COMMISSIONER DIAZ: If I may --
6 CHAIRMAN JACKSON: Please.
7 COMMISSIONER DIAZ: Make a comment. When I met
8 with your Nuclear Oversight Group about a month ago I
9 noticed that a few of them were obviously not happy with
10 certain things, and the bottom line was that they didn't
11 think that, you know, they really pay attention to some of
12 the things, and I waited today to tell you that.
13 I didn't find that disturbing. I found that if I
14 could stay and actually be frustrated I will be an asset to
15 the organization, and in relation to the turnover, I hope
16 that that turnover has nothing to do that some of them are
17 outright ornery in about their, you know, statements.
18 MR. MORRIS: We see that as a healthy environment,
19 and when you hear oversight and you hear the reports that
20 we're telling you about the station, we are never going to
21 have a 100-percent happy working environment. No one does.
22 But people are free to speak their piece, and they're
23 willing to speak their piece, and those are the signals that
24 we're looking for, and we've done what we can, and always
25 will do what we can, to listen and respond to those

1 concerns. So we see that as a potential plus to the overall
2 health of an organization.
3 COMMISSIONER DIAZ: Okay. Thank you.
4 COMMISSIONER DICUS: I have a question.
5 CHAIRMAN JACKSON: Please.
6 COMMISSIONER DICUS: This experience of your
7 Nuclear Oversight Group, is it going to transfer to -- I
8 understand you to say it's going to transfer into the
9 operating Millstone. If that should occur, is it more
10 likely to start eroding or go over to Unit 2?
11 MR. STREETER: Clearly our priority is attention
12 to the safe restart return to service of Unit 3. That is --
13 the staff knows that and so the resources -- if there's
14 competition for resources, that's where the resources will
15 be applied. We have our -- are implementing a plan now to
16 where we are -- we have assured that we've got the necessary
17 support for Unit 3 for this 24-hour coverage and support
18 while then dedicating other resources to the recovery
19 efforts for Unit 2.
20 We're sensitive to that, and I can assure you that
21 the priorities are to get Unit 3 safe first and then the
22 recovery of Unit 2. And we have no problem at this point
23 that I see as having sufficient resources to accomplish both
24 in a quality fashion.
25 CHAIRMAN JACKSON: But once Unit 3 is restarted,

1 you have sufficient resources and capabilities to continue
2 the nuclear oversight of an operating Unit 3 as you focus on
3 Unit 2. I think that's what she's trying to get to.
4 COMMISSIONER DICUS: That's my question.
5 MR. STREETER: Absolutely. And I can tell you
6 that if it comes to the point in time there's any question
7 in my mind that I don't have adequate resources, I will get
8 them, because the management commitment is there.
9 CHAIRMAN JACKSON: Great.
10 MR. MORRIS: Yes, ma'am.
11 MR. STREETER: Any other questions?
12 I'd like to continue talking about the
13 transformation of nuclear oversight and tell you that in the
14 past nuclear oversight function is what some of us know as
15 silo effect, even within the nuclear oversight organization,
16 where auditors would do their audits, surveillors would do
17 their surveillances, and inspectors would do their
18 inspections, and people that did other functions would
19 produce their reports, and there wasn't a great deal of what
20 I'm calling integration.
21 To build upon each other's experiences and to use
22 the resources we've got to focus on the most important
23 activities and to complement each other's efforts. We make
24 great inroads in that area. The nuclear oversight restart
25 verification plan is one example where we're pulling all of

1 our resources and focusing on that effort. But there's been
2 numerous other things where we have integrated our efforts.
3 We've got a ways to go. We're continuing to improve in that
4 area.
5 Parallel to that is that a lot of times what we
6 know as quality assurance organizations have a tendency to
7 be an ivory tower, so to speak, and not being close to the
8 action and doing what they think is right and doing what the
9 programs and the tech specs may require but I have an audit,
10 I have to do this, and being locked up in complete
11 compliance that we lose sight of what I call the pulse of
12 the project, and accomplishing the compliance orientation,
13 but focus a resource to the important things that are
14 necessary to support the safe operation of the plant.
15 We have gone just a long ways in that regard, but
16 again I'll tell you, we're getting better as we go and we'll
17 get further. But we are doing more what we call
18 performance-based approaches in our activities, and we're
19 getting better as time goes along. We have improved the
20 timeliness of our products through -- we have improved the
21 scope of our activities. Now we've instituted a program
22 when we do an audit we invite the line organizations to say
23 hey, what do you think that would be items that you think
24 are critical that need to be covered? And by using that
25 information, then coming up with a more effective and

1 valuable product.

2 CHAIRMAN JACKSON: Give me an example of what you

3 would call a performance-based assessment.

4 MR. STREETER: When -- well, I guess it would

5 be -- let me contrast it with an audit. That's the easiest,

6 clearest way to do it. An audit typically is to go out and

7 you look at most of the time documentation, evidences of

8 things that have transpired. They're generally things that

9 have already happened and you're checking the adequacy of

10 it. That's not always the case, but generally that's true.

11 Performance-based activities are most of the time

12 incorporated into special review teams, and I think the

13 surveillance activity would most closely illustrate that.

14 Whereas were audits have to be because of requirements have

15 to be very, very -- have to meet administrative requirements

16 about the entrance interview --

17 CHAIRMAN JACKSON: The checklist.

18 MR. STREETER: All of those important

19 administrative requirements, the surveillances aren't

20 constrained with that level of detail. So they're freer to

21 respond to emerging issues where they would go out and they

22 actually look at activities when they are occurring.

23 CHAIRMAN JACKSON: Actually I was just asking you

24 for an example.

25 MR. STREETER: Well, I'm sorry. The example would

1 be the 24-hour coverage that we presently have in place by
2 the Nuclear Oversight Organization whether in the control
3 room, they're witnessing the communication and the
4 responsiveness of the operators talking to the management
5 oversight individuals to determine if they understand their
6 role, their contribution, being in the field with the plant
7 equipment operators to get a feel for the plant and their
8 knowledge and their activities. So that's real-time
9 watching activities are going on.
10 CHAIRMAN JACKSON: Okay.
11 Now we have over the last 16 months -- the next
12 slide a little straight -- and I don't want to make a lot
13 of -- a big point about the quantity of these observations.
14 Actually, I couldn't contrast this to what you would
15 normally find at any other plant, only to illustrate to you
16 that we do a variety of activities and we have a wealth of
17 opportunities to derive some knowledge to assess
18 performance, and that is what this is intended to be -- the
19 QC inspections, the automated work orders, our review
20 process, and it just goes down through the independent
21 review team reports, so it is just the variety of activities
22 that I would like to illustrate from that.
23 CHAIRMAN JACKSON: Do you track or keep --
24 maintain awareness in any way of things, say, in three
25 areas -- line identified issues and problems, issues and

1 problems identified by Oversight that were not identified by
2 the line, and self-revealing problems?
3 Do you track those at all?
4 MR. BROTHERS: Yes, we do. I'll answer for that.
5 We have a performance indicator that describes exactly
6 that -- line-identified, self-identification ratio, internal
7 oversight, external oversight, and event -- and that is a
8 weekly indicator.
9 CHAIRMAN JACKSON: Good.
10 COMMISSIONER DIAZ: How is your QA organization
11 integrated into this?
12 MR. STREETER: How is it integrated --
13 COMMISSIONER DIAZ: Or where is it located with
14 respect to Nuclear Oversight?
15 MR. STREETER: A quality assurance organization
16 normally -- I'll talk about what a normal plant will at
17 least have and then we'll go from there.
18 A quality assurance organization always has an
19 audit function. Most quality assurance organizations that I
20 know of today have also a surveillance function, so you have
21 got audits and surveillance activities.
22 Most quality assurance organizations that I am
23 familiar with also has a QC inspection function, which is a
24 quality assurance function but not always. In some, in many
25 plants it's not in the quality assurance organization, so

1 what people would normally call as quality assurance are
2 embodied in those three normal organizations -- the audits,
3 the surveillances, and the QC inspection.
4 In our organization the surveillances and the QC
5 inspection are the responsibility of our Performance
6 Evaluation Group. The audits are performed under our Audits
7 and Evaluation Group.
8 In addition to that, our Oversight function
9 presently has responsibility for the Nuclear Safety
10 Engineering Group, which is this ISEG function. It also
11 includes some human factor reviews and some operating
12 experience reviews.
13 In addition to that, we have the independent
14 review team, and notably I'll say it also has a temporary
15 organization of extremely well-qualified people doing,
16 overviewing our 5054(f) efforts or our efforts to restore
17 and assure our -- restore our design basis and licensing
18 basis requirements, so that is the temporary organization
19 that as we restore that, those folks will move out.
20 Now because they are extremely well-qualified
21 folks, and us not wanting to lose that information, we have
22 already instituted a practice to where we are rotating those
23 individuals who are permanent staff now to let this
24 experience, so to speak, rub off on them before they leave
25 the site.

1 MR. KENYON: I think the simple answer is they are
2 all part of Oversight.
3 [Laughter.]
4 MR. STREETER: Is that all I had to say?
5 MR. KENYON: That's all.
6 CHAIRMAN JACKSON: That's all you need to say.
7 COMMISSIONER DIAZ: They are all integrated under
8 Oversight?
9 MR. STREETER: Yes.
10 COMMISSIONER DIAZ: Thank you.
11 MR. STREETER: That was easy enough.
12 I want to turn now to -- we were talking about
13 restoring this capability and what we have done with it.
14 We have, and these are just some examples of some
15 things where we have put to use, this capability, and
16 contributed to the recovery efforts in a positive way.
17 The next-to-the-last bullet, I won't say anything
18 about that because we have talked about that right upfront
19 with Commissioner McGaffigan, I think.
20 The other efforts on the independent corrective
21 action verification program readiness, we were instrumental
22 in looking at the site's readiness for that and because of
23 our views on this and discussing it with the line, we came
24 to an agreement that we weren't ready initially for the
25 inspection and delayed that.

1 The operator training audit in the summer of last
2 year, our input was instrumental in the stand-down that
3 occurred and equally all of those other activities had
4 significant input from us that contributed to improved
5 performance.
6 MR. BOWLING: Chairman Jackson, if I could --
7 CHAIRMAN JACKSON: Please.
8 MR. BOWLING: -- add one comment on the 40-500
9 readiness.
10 Based on Oversight's performance-based
11 assessments, in this case it was a couple of the major
12 maintenance activities -- there was major work on emergency
13 diesel generator, for example -- where they provided
14 performance-based review from the start of that job all
15 through the job, every aspect of the job, based on that and
16 some of the procedure adherence and other program issues
17 that came out of that, a decision to defer or delay the
18 40-500 inspection by almost a month -- that is one example
19 of how we use performance.
20 CHAIRMAN JACKSON: Thank you.
21 MR. STREETER: Regarding problems being identified
22 to the Millstone Nuclear Organization, that was one of the
23 success criteria we had for the Oversight function.
24 Oversight in this context means management as well as
25 Nuclear Oversight.

1 The point that I want to make here, in addition to
2 the point that Marty had previously made, was the
3 distinction or the difference here between those that are
4 identified by Nuclear Oversight and those that are
5 identified by the line.
6 We don't have a specific acceptance criteria what
7 that percentage should be, but I would be alarmed if it got
8 too large and I would be alarmed if it got too small, so the
9 way it is looking now, my judgment is it is probably about
10 where I would expect to see it.
11 CHAIRMAN JACKSON: Are there benchmarks you can
12 use?
13 MR. STREETER: There may be, Chairman. I do not
14 have that information. That is a good point.
15 MR. BOWLING: The goal that we are using on a
16 weekly basis is less than 10 percent of items are identified
17 by something other than --
18 CHAIRMAN JACKSON: -- the line.
19 MR. BOWLING: -- the line, so the goal is actually
20 10 percent.
21 CHAIRMAN JACKSON: Okay, thank you.
22 MR. BOWLING: Another success criteria is what we
23 would call Nuclear Oversight or the oversight function as
24 embraced by management.
25 It is clear now through everything that I see at

1 the site that management is a proponent. Put another way,
2 they have embraced the oversight function. It goes beyond
3 just accepting it as it was in the past, saying we'll make
4 sure you accept it and understand that it is important, but
5 it goes into them now receiving the input and understanding
6 that oversight has a function and it's like we talked about
7 before on the Mode 2 list that we were talking about, where
8 I think it was Mike or Marty, someone said where is it from
9 oversight.
10 We're going through the Mode 4 effort. We had to
11 work off items through the Mode 4 list. That was so
12 effective that the line was now seeking that input to help
13 us prepare for Mode 2.
14 They are going as far as soliciting our advice and
15 requesting special reviews and there are a lot of notable
16 examples in that.
17 Most recently there was in the Engineering
18 organization an instance where we had reached a point
19 looking at the safety-conscious work environment in that
20 organization, we made the decision that we could relax our
21 effort in that area. The Design Engineering Director said I
22 would appreciate it if you didn't, because I have had some
23 difficulties there in the past. This is helping me, this
24 input -- please continue -- which we are doing.
25 We have had numerous occasions on management -- a

1 reflection of their support of the organization to where
2 they have taken the time through various avenues to express
3 appreciation and recognition to the whole site of the
4 contribution of Oversight, and that is important for the
5 site to understand that.
6 We have been integrated as an equal and integral
7 partner in the site activities with not losing our
8 independence or objectivity and we have been empowered, as I
9 had mentioned before, to raise the standards in our
10 operations.
11 Through our Nuclear Oversight restart readiness
12 assessments, we developed a plan that covered multiple areas
13 including all of the key areas that were in our briefing
14 book. We have added to those other areas that we thought
15 were important. For those we developed critical attributes
16 from a variety of sources -- INPO, NRC documents, our own
17 standards to judge the performance.
18 From that we developed the mechanisms to assess
19 and to score those attributes on a biweekly basis, give a
20 report to line management which they identified areas
21 needing improvement, and that is going on on an ongoing
22 basis.
23 Now the results of that are reflected and how we
24 communicate this is demonstrated on the next slide, where we
25 then take those results and those numerical results are

1 converted into what we call a color.

2 Now what we chose, as far as -- pardon me, got

3 ahead of myself.

4 We have used a Nuclear Oversight Verification Plan

5 to make a number of determinations for readiness for major

6 milestones. We have mentioned the 40-500 corrective action

7 inspection, the success criteria and 15 of the 16 have been

8 reaffirmed using this NORVP. The exception is one that has

9 been discussed in detail before, the work planning and

10 management, and the Mode 4 readiness and the OSTI readiness

11 have both -- were affirmed using this process.

12 The latest results of this effort are reflected on

13 this chart. Now one thing that I want to make very clear is

14 that on here you will seen greens and here you will see

15 yellows. Those are the numerical scores from our readiness

16 plan.

17 We chose 70 as the threshold for calling something

18 what we call "satisfactory." That does not mean once we get

19 at the 70 we view that as acceptable, because again we have

20 higher standards that we are pressing toward.

21 Of those areas -- so within the green we have

22 areas yet for improvement and in the yellow areas are those

23 where the numerical grade is below 70. That does not mean

24 those areas are not ready for restart. It just means that

25 we have farther -- more progress to go to get to the higher

1 standards that we are talking about.

2 From those the important thing is we extract from

3 those area those items that we believe are essential for

4 being prepared to go to Mode 2. Those are converted, just

5 as in Mode 4, into a Mode 2 readiness checklist, which we

6 work through those efforts to bring the issues involved

7 before we go to the next step.

8 It is a "living list" -- that doesn't mean the

9 list is stagnant. It will change as we identify issues, as

10 time goes by.

11 MR. STREETER: We are committed to sustaining

12 performance. As a matter of fact, the success criteria that

13 we have now, we are committed to improving upon those.

14 We're going to do that by continuing the process that we

15 have in place now of line rotation to build the experience

16 into the -- keep the experience in the organization;

17 continue to do self-assessments to monitor performance, and

18 continue to use external assessment sources such as the

19 Joint Utility Management Organization.

20 So what I would like to say is, in sum, is that

21 success criteria have been met and the problems are being

22 identified by line organization. Management does embrace

23 oversight assessment functions. The Nuclear Safety Advisory

24 Board has confirmed the adequacy. We have demonstrated our

25 value and it's clear that we've got more work to do to get

1 the elite level of performance that we're striving for, and
2 we'll get there.
3 MR. KENYON: Very quickly, in closing, we've
4 talked about leadership as being an important factor in the
5 recovery of Millstone. I believe leadership is in place
6 with high standards and strong values for sustained
7 performance.
8 We have talked about the 16 key site issues.
9 Fifteen of 16 are closed and the other will close shortly.
10 So we believe those in place for Unit 3.
11 We have talked extensively and very appropriately
12 about the importance of checks and balances, and that ranges
13 from self-assessment by the line organization through
14 oversight through the NASB, through the Nuclear Committee,
15 the Board, with its NCAT, a very important aspect of how we
16 do business going forward.
17 We have talked about the backlog, the fact that
18 we've set a very low threshold for items being identified
19 into the backlog, but a very thorough process as to what's
20 deferrable and what's not; and even for what's deferrable,
21 we've worked off over 60 percent of what's there. And we've
22 talked considerably about I think one of our fundamental
23 challenges, which is to reestablish a safety conscious work
24 environment. We believe we have done that.
25 So on the issues we've discussed today, we believe

1 we're ready for restart. We look forward to our next
2 meeting.
3 CHAIRMAN JACKSON: Thank you very much.
4 Mr. Morris, do you have any --
5 MR. MORRIS: Thank you for your time, your
6 attention and your help.
7 CHAIRMAN JACKSON: Thank you. Thank you very
8 much. We will excuse you. Thank you. And now we would
9 like to hear from Little Harbor Consultants, who will give
10 us their status update on the employee safety concerns
11 program.
12 Commissioner McGaffigan noted that we're an hour
13 behind schedule, so that means you have a minute to give
14 your --
15 [Laughter.]
16 MR. AMERINE: Are there any questions?
17 [Laughter.]
18 COMMISSIONER DIAZ: Is that a part of our aging
19 program?
20 CHAIRMAN JACKSON: Yes. Yes. It's aging
21 management.
22 Please, Mr. Beck.
23 MR. BECK: Good morning, Chairman Jackson,
24 Commissioners Diaz, Dicus and McGaffigan.
25 I'm John Beck, president of Little Harbor

1 Consultants, and with me this morning is John Griffin, our
2 deputy team leader at Millstone, and Ms. Billie Garde, a
3 member of the team.
4 This morning, John will discuss the results of the
5 structured interviews we completed in February, and
6 following the structured interview results, he'll cover our
7 evaluation of two of the four NU success criteria:
8 willingness to raise concerns and the corrective action
9 program. Ms. Garde will then present our evaluation of the
10 other two success criteria: the employee concerns program
11 and the HIRD area.
12 Following Ms. Garde, I have some comments on why
13 we believe the Millstone site has reached a sufficient state
14 of readiness to warrant your consideration of their request
15 to restart Unit 3.
16 As always, we welcome your questions at any time
17 during the presentation.
18 John.
19 MR. GRIFFIN: Good morning.
20 As John indicated, I'll present the results of
21 Little Harbor's second set of structured interviews and I'll
22 try to move through these slides quickly in the interest of
23 time. A number of the results you've already heard
24 presented by Northeast this morning.
25 Our first set of interviews were conducted in June

1 and July of 1997, and the results were presented to this
2 Commission in August of last year. The interviews we
3 discussed today were conducted during the month of February
4 1998.
5 This slide presents the basic framework of our
6 interviews. We used essentially the same questions this
7 time as last summer. Some questions were slightly reworded
8 for clarification based on experience gained with the first
9 set of interviews.
10 To answer the Chairman's earlier question, it's
11 the size -- we interviewed 298 workers at Millstone selected
12 to represent all site work groups.
13 Of the 298, 24 were volunteers and 18 were
14 contractors. The information we present this morning will
15 include all 298 interviews. We did perform an independent
16 assessment or evaluation of the results of the voluntary
17 responses and determined that the responses were essentially
18 the same whether or not they were included.
19 We selected those to be interviewed to include
20 representation from all work groups, and we selected
21 different people than those that were interviewed last
22 summer. Some of the volunteers were people who had been
23 interviewed before.
24 As I said, Little Harbor selected the individuals
25 to be interviewed, we made the contacts, and we scheduled

1 all the interviews. The interviews were voluntary and we
2 have taken every precaution to ensure that there is no
3 attribution to comments made during the interviews.
4 We asked those interviewed to answer a number of
5 yes-no questions as well as questions requiring them to
6 respond using a scale of 1 to 5, again the same scale that
7 we used last summer. We also asked questions that elicited
8 textual responses.
9 We scheduled these interviews as late as possible
10 in order to provide the Commission with information that
11 reflects the current feelings of the Millstone workforce.
12 It's important to remember that what we're about to present
13 is what members of the workforce told us. The results are
14 what they are and are a snapshot of how 298 employees felt
15 at the time of their interview.
16 On the first slide, in response to the question,
17 "If you became aware of a problem that could affect the safe
18 operation of the plant, would you raise that concern?" 100
19 percent answered that they would raise that concern. The
20 overwhelming majority also indicated that they would raise
21 that concern to their line management. There were two or
22 three individuals who indicated they would use an
23 alternative route, such as the employee concerns program,
24 the NRC or even the media.
25 One-hundred percent also indicated that they were

1 not aware of any safety concern that had not previously been
2 raised. These were the same results that we saw last
3 summer.
4 We next probed to see if restart pressure was in
5 any way impacting the willingness of workers to raise safety
6 issues. The increase in the number of people that responded
7 yes to this question initially was a concern to us. We did
8 a detailed analysis, including re-contacting some of those
9 interviews to better understand their comments. In no case
10 did we find that a person in a management position had told
11 anyone that raising a concern would delay restart. The yes
12 responses were a reflection of water cooler discussions or
13 discussions between peers. And no one indicated that this
14 would prevent them from going to the NRC with a concern if
15 necessary.
16 Ninety-eight percent of those interviewed
17 indicated a willingness to take the concern to the NRC. The
18 primary reason for not going to the NRC was a belief that
19 the concern would be addressed before it became necessary to
20 do so. But there were a few who indicated a lack of
21 confidence in the Commission.
22 This slide reflects an increased confidence in
23 getting nuclear safety concerns addressed and resolved. We
24 included three datapoints gathered during our interviews.
25 Last summer, for several of the questions, we asked those

1 interviewed to tell us how they felt currently as well as
2 how they had felt the year earlier. These year-earlier
3 results appear as mid-'96 on the graphs. As you can see,
4 the average response has increased from 3.3 in mid-'96 to
5 4.3 last summer and then finally to 4.5 in February.
6 More specifically, we asked about worker level of
7 confidence in the three primary paths to resolve concerns:
8 Line management, the employee concerns program, and the NRC.
9 Again, as you can see, all three have increased from last
10 summer results.
11 We asked those interviewed if there was any reason
12 they would not use the employee concerns program.
13 Ninety-three responded that if necessary, they would use the
14 ECP. Some of the no responses were for the reasons
15 indicated. As Ms. Garde will discuss later, our surveys of
16 those who actually used the employee concerns program
17 confirmed this high level of confidence.
18 Questioning attitude is a critical attribute of a
19 safety conscious work environment, and when asked to rate
20 their own level of questioning attitude and those of their
21 work group and the site, the results were improved, with the
22 site numbers being essentially the same.
23 The understanding and awareness of the Millstone
24 self-assessment program showed a marked improvement during
25 these interviews. As you can see, responses to each of the

1 three questions showed significant improvement.

2 In response to the last question, interviewees

3 provided numerous specific examples of improvements they

4 have seen that resulted directly from self-assessments.

5 We also asked about the corrective action program,

6 and again, we saw a marked improvement in the confidence in

7 the CR process as reflected on this slide.

8 We asked questions designed to probe the level of

9 trust and confidence between workers and their supervisors.

10 This confidence and trust between workers and supervisors

11 has improved from the last round of interviews.

12 This slide shows improvement in response to both

13 questions. The workers we interviewed felt good about their

14 contribution that they were making to Millstone, and their

15 awareness of positive recognition being given to individuals

16 who raised concerns is especially positive.

17 These questions probed how those interviewed

18 perceived the attitudes of workers, supervisors, and

19 management toward people who raise concerns. Again, steady

20 improvement is shown in each area.

21 When asked to rate the presence of a chilling

22 effect, the response was also improved. And it's important

23 to remember here that the lowest possible number is 1.

24 Steady improvement was also seen in the area of

25 teamwork and cooperation within the individual's own work

1 group, within their unit or staff organization, and across
2 the entire Millstone site.
3 In regard to communications from management, again
4 there is steady improvement in all areas. The largest
5 improvement is the attitude of employees towards middle
6 management and their supervisors, as shown on the bottom two
7 graphs. We believe this is due at least in part to the
8 training that has recently been conducted for all managers
9 and supervisors.
10 In summary, the interview results reflect
11 across-the-board improvements. The largest improvements
12 were seen in awareness of management expectation, confidence
13 in the corrective-action program, and the utilization of
14 self-assessment processes.
15 The results of our interviews confirm the
16 observations by Little Harbor in regard to the willingness
17 of this work force to raise concerns. In fact, we believe
18 that at least in regards to raising concerns, this is
19 currently a very empowered work force. As a result of these
20 interviews, we find that the work environment at Millstone
21 has continued to improve since last summer. These results
22 were utilized by Little Harbor in our evaluation of the
23 safety-conscious work environment attributes at Millstone.
24 If you have no further questions on the results
25 themselves, I would like to shift the presentation to our

1 Evaluation of the Four Success Criteria.

2 As I just stated, the results of our structured
3 interviews provided data that Little Harbor used in
4 evaluating the 12 attributes of a safety-conscious work
5 environment and the four success criteria established by
6 Northeast. I will present the results of our most recent
7 evaluation of the first two of the criteria, and Ms. Garde
8 will discuss the final two.

9 The results that we will discuss this morning were
10 presented to your staff and to Northeast at a public meeting
11 held on April 7, 1998. We revisited these results earlier
12 this week and have determined that there has been no change
13 since that last evaluation. And as we have stated before,
14 these ratings were arrived at after lengthy discussion among
15 members of the team and represent a consensus opinion of the
16 entire team.

17 CHAIRMAN JACKSON: And what do you use in arriving
18 at your consensus opinion about these attributes?

19 MR. GRIFFIN: We sit down in a group meeting and
20 we put everything that has happened in the preceding period.
21 We categorize the issues that have developed. We use the
22 company's key performance indicators. We use in this case
23 the results of our structured interviews. Any observations
24 that we have seen we discuss, we debate back and forth among
25 the team members and slowly narrow in on a final

1 determination.

2 The first success criterion is a demonstration
3 that the work force is willing to raise concerns. This
4 slide and subsequent slides of the success criteria provide
5 a historical perspective of Little Harbor evaluations
6 conducted to date. As you can see from this slide, we have
7 seen a steady improvement in this success criterion.

8 During our first set of structured interviews last
9 summer and in our many interactions with the Millstone work
10 force in that time period, we found a work force that would
11 raise safety concerns but was generally worried about the
12 consequences of doing so. Over the last eight to nine
13 months we have seen these worries diminish as the Northeast
14 initiatives began to take hold. Today we find a work force
15 that is very empowered when it comes to expressing concerns.

16 In addition to the results of our structured
17 interviews we have seen example after example where issues
18 have been raised and where decisions by management have been
19 challenged by workers. Our current evaluation of this
20 success criteria is yellow plus, with an improving trend.
21 And we find this criterion to be acceptable for restart.

22 The next success criterion is a demonstration of
23 line management's ability to resolve effectively the issues
24 raised by the work force at Millstone. This is the
25 Millstone Corrective Action Program.

1 As you can see from the slide, this criterion has
2 stayed constant throughout our evaluation period, and we
3 find this criterion to also be acceptable to support the
4 restart of the Millstone unit.
5 In arriving at this conclusion, Little Harbor
6 conducted two assessments of the Corrective Action Program,
7 one last fall that focused on program and procedures, and a
8 more recent assessment that looked at implementation. We
9 found the Correction Action Program and its implementing
10 procedures to be complete and comprehensive. We also found
11 that the Corrective Action Program has been implemented
12 aggressively and that NU has dedicated significant resources
13 to this implementation.
14 In addition, we reviewed the self-assessments
15 performed by Northeast as well as the recent inspection
16 conducted by the Commission, both of which found the
17 Corrective Action Program to be effective.
18 As I covered earlier in discussing the results of
19 our structured interviews, the work force as represented by
20 those that we interviewed expressed an understanding of and
21 an increased confidence in the fidelity of this program to
22 resolve their concerns. While we find the Corrective Action
23 Program acceptable to support restart, it is also necessary
24 for NU to continue the efforts to improve this program and
25 to constantly improve the standards that they are measuring

1 themselves to.

2 Ms. Garde and I will discuss the remaining two

3 success criteria.

4 CHAIRMAN JACKSON: Let me ask you a question. An

5 up arrow means an improving trend?

6 MR. GRIFFIN: That's correct.

7 CHAIRMAN JACKSON: And so the fact if it remains

8 an up arrow and the category doesn't change, it just means

9 the slope was not --

10 MR. GRIFFIN: It's slow improvement. That's

11 correct. Or we have not seen enough positive -- it could

12 also mean that we just have not seen enough positive

13 measurable factors to allow us to take it to the next step.

14 CHAIRMAN JACKSON: But folding in all of these

15 various considerations you said it still means that it's on

16 an improving trend.

17 MR. GRIFFIN: That's correct.

18 CHAIRMAN JACKSON: Okay.

19 MS. GARDE: That same comment would apply to the

20 Employee Concern Program. The Millstone Employee Concern

21 Program is currently rated yellow with an improving trend by

22 Little Harbor. This program has steadily advanced since

23 December of 1996. The ECP program has been determined by

24 Little Harbor to be acceptable for restart.

25 Little Harbor reached this conclusion on the basis

1 of a detailed examination of the ECP program manual and
2 procedures, observations of the implementation of the
3 program at every phase, a review of the case investigative
4 files, debriefing of a selected number of workers who have
5 used the ECP program to pursue concerns, the qualifications,
6 commitment, and morale of the ECP staff, and the useful
7 integration of findings, lessons learned, focused areas, and
8 other information that provides important insight into the
9 Millstone work environment.
10 The ECP program and procedures are comprehensive
11 and provide a foundation for reliable and effective
12 alternative method for employees to raise concerns and
13 receive a timely, credible, and competent answer. While
14 Little Harbor has continued to note occasional weaknesses in
15 investigative files, the work done by the ECP continues to
16 improve.
17 Little Harbor has observed all phases of ECP
18 activities throughout the past year. Detailed descriptions
19 of our findings are contained in the quarterly reports and
20 have been the subject of public meetings. Throughout these
21 observations, Little Harbor has noted that the ECP continues
22 to become more people rather than technical issue oriented.
23 The Employee Concern Program has developed and
24 successfully utilizes an excellent working relationship
25 between executive management, line management, other support

1 organizations, and the concerned employees. The ECP
2 investigative case files have been comprehensively audited
3 at various stages throughout our oversight activities.
4 In July 1997 Little Harbor completed a review of
5 100 percent of all files closed out between December '96 and
6 June of '97. The Little Harbor findings released in late
7 July 1997 were quite critical. Thereafter the program
8 undertook major program changes, and a comprehensive review
9 completed last month which included 100-percent review of
10 all files involving allegations of retaliation and a
11 significant proportion of other files indicated substantial
12 improvement in casework and file documentation.
13 The confidence of the work force in the ECP also
14 continues to improve. Last summer only 50 percent of those
15 who had used the ECP indicated they would use it again in
16 the future. Currently we find this number to have grown to
17 88 percent.
18 Northeast Utilities recognizes that it must
19 continue to earn the confidence of employees in the
20 program's independence and credibility. Strong leadership
21 and confidence in the program has come from the ECP director
22 and his staff, including competent contract investigators.
23 Little Harbor has been particularly impressed with
24 the actions and guidance that Mr. Ed Morgan has brought to
25 this program. His willingness to be an independent advocate

1 for the facts gathered by the ECP investigators and his
2 contributions to the work environment are notable.
3 In addition, Northeast Utilities has demonstrated
4 a commitment to providing the resources necessary to
5 accomplish the task. In December 1996 this Employee Concern
6 Program faced a difficult task of rebuilding trust and
7 confidence of employees while rebuilding itself. It has
8 done so. Little Harbor believes that the Commission can
9 rely on the Millstone Employee Concern Program to provide an
10 effective and competent alternative to employees who for
11 whatever reason are unable or unwilling to pursue concerns
12 through line management.
13 The final success criterion is management's
14 ability to recognize, mitigate, and deal with issues
15 involving harassment, intimidation, retaliation, and
16 discrimination. The progress of that area is on the slide.
17 In 1996 the Millstone work environment was
18 characterized by fear, distrust, lack of confidence in
19 management, and feelings of helplessness and hopelessness in
20 the work force. The reasons that the environment
21 deteriorated to the point that the Commission intervened are
22 complicated.
23 Three studies in 1996 identified a series of root
24 causes that included among others a lack of accountability
25 and a lack of leadership by corporate and site management.

1 As required by the NRC's October order, these weaknesses
2 were to be addressed by the development of a comprehensive
3 plan designed to create a safety-conscious work environment.
4 This has been the most difficult hurdle for
5 Millstone to clear, as evidenced by the windows on this
6 slide. As late as February of this year, Little Harbor
7 still rated this attribute red, the lowest possible
8 evaluation under our rating system. It was not until our
9 evaluation presented on April 7 that we found this attribute
10 to be acceptable for restart. Our decision was heavily
11 influenced by the checks and balances that have been put
12 into place to identify, anticipate, and prevent incidents of
13 harassment, intimidation, retaliation, and discrimination.
14 By the presence of a strong employee concerns
15 program by the confidence expressed by the work force, via
16 the structured interviews, and by an extraordinary level of
17 senior executive commitment to work environment issues.
18 Nonetheless, as Little Harbor has cautioned
19 Northeast Utilities, in order for Millstone to establish a
20 truly self-sustaining safety-conscious work environment, it
21 must eventually replace the extraordinary efforts it is
22 currently employing with sustained good judgment of line
23 management in addressing employee questions and issues.
24 The Millstone work force no longer feels helpless
25 or hopeless. The employees, from operators to maintenance

1 technicians to senior executives, understand what is
2 expected of them in their dealings with others, and
3 understand their responsibility to raise safety concerns.
4 This is a very empowered work force. They understand their
5 legal rights, and the legal limitations imposed on their
6 employer that prevent and prohibit retaliation.
7 Even with all of these improvements and advances,
8 mistakes will happen. Little Harbor believes that the
9 tools, the training and the commitment is in place to
10 prevent those mistakes from reversing progress.
11 However, as we have cautioned, progress on this
12 issue can be very tenuous. Some of the work force still
13 have a lingering concern that things could go back to the
14 old way of doing business after restart. Now is not the
15 time to relax.
16 CHAIRMAN JACKSON: Thank you.
17 Let me ask you two quick questions. I mean if I
18 took what you said relative to this last attribute, where
19 you particularly talked about the checks and balances and
20 the strong employee concerns program, et cetera, et cetera,
21 but what is needed in the long term is sustained good
22 judgment on the part of line management in dealing with
23 these sorts of issues, is there an implication in what
24 you're saying that there are these supernumerary things that
25 have been put into place and that you don't have confidence

1 that there is sustained good judgment on the part of line
2 management?
3 MS. GARDE: Well, sustained good judgment on the
4 part of line management --
5 CHAIRMAN JACKSON: I mean are these covering for
6 that or do you have evidence that line management's judgment
7 in these areas in fact has improved in a measurable way?
8 MS. GARDE: It has improved in a measurable way,
9 but use of the checks and balances, as well as the
10 intervention that we referred to as the extraordinary extra
11 commitment continues to provide guidance, training,
12 learning, so that making decisions at the line management
13 level with confidence is something that will happen easier,
14 more frequently, and without the needed intervention.
15 Frequently what we have seen with line managements
16 exercising their judgment is that their instincts are right,
17 but because they didn't grow up in a culture that reinforced
18 following their instincts, they are hesitant to do that
19 thing. And as they see the support that comes through these
20 checks and balances, they are learning, the managers are
21 learning, and because of that, it's certainly not time to
22 take away those checks and balances, but eight months from
23 now, six to eight months from now, a year from now,
24 hopefully those checks and balance systems will not be
25 required.

1 CHAIRMAN JACKSON: Let me ask you Commissioner
2 McGaffigan's question: How long should you stay around?
3 MR. BECK: If I may, that's something that's been
4 on our mind since the very beginning, how do you close what
5 I think everyone considers to be a very extraordinary
6 requirement that's been placed on the Millstone site.
7 Our view, very simply, has been in this quite
8 subjective area of involvement, when we no longer make a
9 difference. I think speaking directly to that, we are
10 seeing less and less occasion for us to have to speak up and
11 in accordance with our oversight plan make recommendations
12 that something be done differently.
13 So that frequency is going down as we speak on a
14 daily basis.
15 CHAIRMAN JACKSON: So what is your exit strategy?
16 MR. BECK: Our exit strategy is contained -- I
17 would describe it this way: We still have a need, I
18 believe, to witness how this organization performs in the
19 operational environment rather than in the recovery
20 environment. It's different, it presents subtle challenges
21 to any organization to be operating rather than in a
22 recovery mode, and we think it's necessary, and our
23 oversight plan calls for observations in that circumstance.
24 We think there are some processes that they have
25 put in place, particularly in the 50.7 area, that we have

1 not seen enough implementation of to be fully confident that
2 those processes are going to be effective on a long-term
3 basis. So continued observation of that for a while, I
4 believe, is imperative.
5 Beyond that, I think it will be rather obvious
6 when we get to the point -- and I don't mean to be trite
7 -- but when we become essentially the Maytag repairman, that
8 the processes and the organizational checks and balances and
9 their effort -- and they have put in place, by the way, in
10 their 1998-2000 performance plan, a process to evolve away
11 from all the extraordinary measures that they have at the
12 site today. And as you see that beginning to take place, I
13 think it will become very obvious that there is no longer a
14 need for an independent oversight presence at the site. It
15 well might occur in six months, it may occur sooner than
16 that. I think we will see it very shortly.
17 CHAIRMAN JACKSON: So the two key things are
18 observation or seeing what happens in the operational
19 environment, and the second is seeing actually to the
20 implementation of the 50.7 processes?
21 MR. BECK: That's right.
22 COMMISSIONER DICUS: Given your comments regarding
23 criterion number 4, which I took as something of a
24 qualification statement with regard to your overall
25 recommendation for restart, are there some other areas that

1 you might have a qualifying statement on with regard to
2 restart?
3 MR. BECK: I have some comments I want to make in
4 a general sense that may be of benefit to the Commission.
5 As you have heard from both John and Billie, we
6 have concluded that Northeast has established a
7 safety-conscious work environment at Millstone that we think
8 is acceptable to permit the restart of a Millstone unit.
9 The four success criteria that we just reviewed
10 all meet our acceptance criteria for restart and, in
11 addition, the 12 underlying attributes, which were included
12 in your briefing package, also all meet the acceptance
13 criteria for restart.
14 We have performed our independent oversight role
15 in strict accordance with the oversight plan and, as you
16 just heard from John and Billie, we are confident that that
17 safety-conscious work environment exists and that there is
18 reasonable assurance that progress made to date is
19 sufficient to support resumption of reactor operation.
20 This progress has been due, to some extent,
21 however, to the extraordinary measures by management, and
22 they should be continued until it is clear that the desired
23 organizational behavior is self-sustaining.
24 You can be sure, as are we, that these
25 extraordinary measures have been effective, and we applaud

1 those successes, but the goal has to be to reach a
2 self-sustaining basis. The organizational and
3 sophistication and cultural change that such measures will
4 lead to have to be there. This will require a continuation
5 of and an increased emphasis on the current efforts
6 management has underway in educating and training all the
7 work force regarding safety-conscious work environment. In
8 particular, team building and accountability efforts are the
9 two factors which are key to getting to that self-sustaining
10 status. And we will continue our oversight activities in
11 accordance with the plan until the Commission instructs us
12 to do otherwise.
13 If there is anything else we can provide in the
14 way of response to questions, we are happy to do so.
15 Thank you very much for the opportunity to brief
16 you this morning.
17 CHAIRMAN JACKSON: Thank you.
18 Oh, I do have one last question. Do you agree
19 with the licensee's assessment that the training in this
20 area is substantially complete?
21 MR. BECK: It's an ongoing training requirement.
22 We believe that the training is appropriate, but they have
23 to continue it, and they have to be sure in particular that
24 any new people entering the management or supervisory
25 structure receive that training in a timely fashion, and you

1 heard them say that they are committed to do that.

2 CHAIRMAN JACKSON: Thank you very much.

3 MR. BECK: Yes.

4 CHAIRMAN JACKSON: We will take our midday recess

5 for one hour until 1:00 o'clock. Thank you very much.

6 [Whereupon, at 12:05 p.m., the meeting was

7 recessed, to reconvene at 1:00 p.m., this same day.]

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1 A F T E R N O O N S E S S I O N

2 [1:05 p.m.]

3 CHAIRMAN JACKSON: Good afternoon. This is a
4 continuation of the meeting we began this morning assessing
5 the Millstone Station with respect to three issues, in
6 particular employee concerns and safety conscious work
7 environment, oversight, and quality assurance, and backlog
8 management.

9 We've heard this morning from the utility as well
10 as from Little Harbor consultants who have been overseeing
11 the issues related to safety-conscious work environment and
12 employee concerns program.

13 We are now going to hear from -- sequentially from
14 a number of public officials, public interest groups and
15 individuals and I'm going to call on each one in turn. I'm
16 going to ask each person to try to be as succinct as
17 possible to remain within your allotted time, but we do want
18 to hear from each person and that's how we can be fair to
19 everyone.

20 I'm going to begin with Mr. Thomas Sheridan, the
21 first selectman from the town of Waterford.

22 Good afternoon.

23 MR. SHERIDAN: Good afternoon. And thank you for
24 the opportunity to address the Commission.

25 CHAIRMAN JACKSON: Make sure you speak into the --

1 is it on?

2 MR. SHERIDAN: Yes, I think it is. Yeah.

3 By way of providing a little background on myself,
4 it will help me, and you folks who don't know me, understand
5 where I'm coming from.

6 I have a license that I've kept renewed over the
7 years in plumbing and pipefitting and that helps me
8 understand the complexity of a plant such as Millstone. I
9 also have an advanced degree in organizational psychology
10 which also helps me understand the complexities of changing
11 the work environment and the work culture out there. So,
12 with that little bit of background and, of course, I'm first
13 selectman. For those of you who are not familiar with such
14 a title, it's mayor. I'm serving my fourth term, recently
15 re-elected to a fourth term. It's a full-time position in
16 the town of Waterford. And with that I will read my
17 statement.

18 I appreciate this opportunity to address the NRC
19 and others present on this important issue. Millstone
20 station with its more than 2,000 employees is an important
21 part of the town of Waterford and its safe operation is
22 crucial to the economic and environmental well-being of our
23 community, to the State of Connecticut and indeed to future
24 of the nuclear industry. The last two years have been a
25 painful experience for not only the station workers, but for

1 the community as well.

2 We've seen an erosion in what had been a good
3 relationship between the station management and the
4 community, public confidence in the ability of Northeast
5 Utilities to operate the Millstone plants was seriously
6 damaged during this time. I believe, however, that several
7 positive changes have resulted from this ordeal. Much has
8 been learned by the company, the community and indeed by
9 NRC.

10 First and most important historical deficiencies
11 in the way Northeast Utility has done business a Millstone
12 have been changed for the better. The new leadership team
13 is managing the station to a very high standard, and I am
14 both hopeful and confident that Millstone will once again
15 become an industry leader.

16 Second, I speak with employees on site as well as
17 many Millstone employees who live, work, and volunteer in
18 our town government. I now have confidence that the work
19 environment at the plants has significantly improved over
20 the past several months. Workers are encouraged to bring
21 forth issues to be resolved and are acknowledged and
22 respected for doing so. This speaks well for the future of
23 this site and I believe this positive organizational climate
24 will continue to be supported by management.

25 I also believe that democratic process worked well

1 here. Two years ago there was a great deal of anger and
2 emotion in the community about the unfolding situation at
3 Millstone. As a result of over 100 public meetings, over
4 the past two years, our community is much better informed
5 about the complexities of nuclear power plant operations.
6 As we move towards the future, we will do so in a
7 more informed -- as a more informed and more aware
8 community. I commend the members of the various public
9 groups and company employees who have been involved in this
10 process because they have raised very legitimate issues. I
11 commend the NRC staff for allowing these concerns to be
12 discussed openly in an inclusive public process. These
13 meetings, I believe, have provided everyone with the
14 opportunity to be heard.
15 It is my hope that the public citizen groups will
16 continue to stay involved in the process to help ensure a
17 safe operation of the plants and that they will again --
18 will gain the confidence in plant operations. Some men
19 never gain that confidence, but their participation is still
20 an important part of the process.
21 I want to publicly thank the new management and
22 all Millstone employees for their efforts and their part in
23 the process of developing the new work environment of the
24 plants. The thousands of employees at the site have put in
25 countless hours at great sacrifice to themselves and to

1 their families. I know how hard they have worked on that
2 effort and I am confident that the plants will be operated
3 safely in the future.
4 And I comment the Commission for their willingness
5 to include the various public interest groups in this
6 meeting today. I also appreciate being included myself as
7 first selectman of the host community which is the town of
8 Waterford.
9 Now, I believe it is time to get on with the
10 process of safe operations at Millstone 3. Millstone has
11 historically been a good neighbor. Millstone's new
12 management is determined to restore the status. I ask that
13 you authorize the restart of Millstone 3 so that we can
14 begin to put this painful chapter behind us.
15 I'm happy to answer any questions which the
16 Commissioners may have.
17 CHAIRMAN JACKSON: Any questions, Commissioner
18 Dicus?
19 COMMISSIONER DICUS: No, thank you.
20 MR. SHERIDAN: Thank you very much.
21 CHAIRMAN JACKSON: Thank you very much.
22 I would like to call forward Mr. John Markowicz,
23 Vice Chairman of the Nuclear Energy Advisory Council for the
24 State of Connecticut.
25 Good afternoon.

1 MR. MARKOWICZ: Good afternoon, Chairman Jackson,
2 NRC Commissioners. Thank you for this opportunity to
3 participate in the public briefing on selected issues
4 related to the proposed restart of Millstone 3.
5 My name is John Markowicz. I'm a citizen of
6 Waterford, Connecticut, and as you've indicated, Vice
7 Chairman of the State of Connecticut Nuclear Energy Advisory
8 Council, also known as NEAC.
9 With my family I've resided for the past 21 years
10 within two miles of the Millstone Nuclear Power Station.
11 Prior to that for more than 11 years I served on active duty
12 as a nuclear trained commissioned officer in the United
13 States Navy, including a final tour as chief engineer of a
14 fast attack nuclear submarine.
15 I have never been employed by a commercial nuclear
16 utility. As a local civic leader and as a businessman, I
17 was nominated by the first selectman of Waterford, Mr.
18 Sheridan, to serve as a volunteer on the NEAC nearly two
19 years ago.
20 NEAC was established by the Connecticut
21 legislature by public act in 1996. Our membership consists
22 of 14 uncompensated appointees from varied backgrounds and
23 perspectives to provide diversity, balance, and credibility.
24 We receive clerical support from the Department of the
25 Environmental Protection and have been appropriated $15,000

1 per year for travel funds in Fiscal Years 1998, the current
2 year, and 1999.
3 Four of us have signed communications protocols
4 with the NRC. We have been charged by the legislature to
5 hold regular public meetings to discuss safety and operation
6 of Connecticut's nuclear plants and to advise the Governor,
7 the legislature of municipalities within a five-mile radius
8 of the plants to work with Federal, state, and local
9 governments and companies operating the facilities to ensure
10 public health and safety, to discuss post-changes and
11 problems arising from the operation from nuclear generating
12 facilities and to communicate the written reports and
13 presentations with nuclear plant operators about safety and
14 operational concerns, and to review the current status of
15 facilities with the Nuclear Regulatory Commission.
16 Pursuant to this charter, the NEAC has regularly
17 held 21 monthly meetings in Waterford, East Lyme, Haddam,
18 and Hartford since we first met August 1st, 1996.
19 At least one or more members of NEAC have
20 monitored and observed more than 100 of the meetings, nearly
21 all of which have been public noticed. This includes 21 NRC
22 public meetings; approximately 70 meetings between the NRC,
23 the utility, Northeast Utilities or a third-party contractor
24 such as Sergeant Lundy, Parsons Power, and Little Harbor
25 Consultants; and at least 10 NU public meetings or senior

1 management training sessions that Mr. Kenyon and others
2 talked about this morning. I personally attended
3 approximately 90 percent of those events.
4 In addition, and in accordance with communication
5 protocols I noted earlier, telephone conferences between the
6 NRC, NU, and third-party contractors have been routinely
7 monitored by two NEAC members whenever possible.
8 Site visits, plant tours, periodic unannounced
9 monitored observations have also occurred on several
10 occasions both at Millstone and at Connecticut Yankee. With
11 this year's appropriations of travel funding NEAC members
12 have also monitored the corrective action verification
13 program activities on multiple locations both at Sergeant
14 Lundy in Chicago, Illinois and at Parsons Power in Reading,
15 Pennsylvania. As required by the Public Act NEAC has
16 prepared and submitted annual reports in 1996 and 1997 to
17 the Governor and to the legislature.
18 Copies of these two documents have also been
19 distributed to the NRC and has documented therein extensive
20 correspondence has also been generated with Federal and
21 State officials and this has included a number of letters to
22 the NRC.
23 With this information as background, I would like
24 to share with you the following observations for more than
25 22 months of monitoring in Millstone Unit III restart

1 process.

2 Public participation. There has been significant
3 efforts on the part of all parties in the process to solicit
4 and receive public input. Noticed meetings by the NRC have
5 provided numerous opportunities for members of the public to
6 observe and/or speak on Millstone restart issues.
7 Demonstrating similar openness, the utility, Northeast
8 Utilities has sponsored open meetings in Waterford and
9 Haddam, invited the public to normally closed officers'
10 meeting and solicited comments via local advisory council
11 committees at both locations. I would note that as of
12 yesterday, for example, at my request I was allowed to
13 participate in a Nuclear Safety Assessment Board meeting
14 inside the plant.

15 The Citizens Regulatory Commission, CRC, also has
16 hosted a weekly one-hour telephone call-in program on cable
17 access television to voice its concerns and to take citizen
18 input.

19 Though the gap has narrowed, it would be
20 inaccurate to assert that a uniform public consensus has
21 emerged from these discussions as I'm sure you will conclude
22 from the presentations you will receive today from all of
23 the public interest groups. However, it has been and I hope
24 will continue to be a remarkably open process.

25 Thousands of hours of effort by your staff, the

1 utility and the public have focused upon health and safety
2 concerns. NEAC appreciates the measures taken by the NRC to
3 foster this level of public participation. In this regard,
4 I would like to mention the time and effort of the NRC staff
5 personnel in hosting these local public meetings. Open
6 meetings in New England can be a unique experience and a
7 test of the sponsor's tact, diplomacy, and restraint. The
8 monthly five-hour meetings that have been provided have
9 provided your staff particularly the special projects office
10 excellent opportunities to demonstrate these skills.
11 They have certainly earned my respect and
12 admiration. I would also comment the appearances that you
13 have made also on site and the willingness to take similar
14 public events in stride.
15 CHAIRMAN JACKSON: I haven't done it 21 times,
16 though.
17 MR. MARKOWICZ: Millstone employee concerns
18 program and the safety conscious work environment, this has
19 recurringly appeared to be the most challenging aspect of
20 the restart process. In part because it is difficult to
21 quantify and evaluate. It has been likened by one NEAC
22 member as trying to get ones hands around smoke. Most
23 significantly NEAC has observed that a comprehensive change
24 in the Millstone work culture was a fundamental prerequisite
25 to restart certification.

1 While we fully support the NRC order establishing
2 third-party oversight in this area, we raise concerns and
3 questions regarding your independence criteria and the
4 membership of Little Harbor consultants. Having now
5 observed the implementation of this order for nearly 16
6 months, it appears that Little Harbor consultants has
7 credibly implemented the letter and the spirit of the order.
8 A comprehensive plan and common-sense approach to
9 grading attributes provide a quantitative criteria for
10 understanding and evaluating progress by NU in this critical
11 area. It has -- it was and is essential that Little Harbor
12 consultants to maintain lines of communications with NU
13 employees to implement the NRC order.
14 I know some in the public have recently challenged
15 this degree of interaction that has resulted.
16 NEAC has observed that Little Harbor consultant,
17 North East Utilities, and the NRC have demonstrated a
18 reasonable, best effort to achieve and maintain an
19 arm's-length, third-party oversight.
20 Furthermore, the trends reported to the public by
21 Northeast Utilities and Little Harbor Consultants on April
22 7th, and also this morning, are believable and suggest the
23 work place culture at Millstone has improved. We also
24 observe that this condition is fragile. It requires
25 continued monitoring by NU management and by Little Harbor

1 as an arm's-length wandering at least until the number of
2 employee concerns and NRC allegations has been reduced to
3 and maintained at the industry averages or best run nuclear
4 power plants. I would suggest based on some of the
5 discussions this morning that you consider something like
6 that is a metric for when the order ought to be relaxed
7 and/or Little Harbor could be released from their
8 assignment.
9 Deferred items management and corrective action.
10 The major challenges and solutions to deferred items
11 management has been more understandable than employee
12 concerns and safety conscious work environment issues.
13 The magnitude of this situation has been of
14 particular concern with 88 risk-significant, or
15 safety-significant systems at Millstone 3. As well is the
16 erosion of public confidence and the ability of the NRC to
17 monitor and enforce corrective actions standards.
18 Though challenging again, the independence
19 criteria for the selection of third-party contractors to
20 implement the corrective action verification program, NEAC's
21 support of the goals and objectives of the NRC order.
22 Additional confidence in this process was established when
23 NEAC was allowed to develop and implement a random process
24 for selecting the corrective action and verification program
25 systems and the NRC then went on to further define four

1 understandable levels of publicly grouping and disseminating
2 the deficiency reports of DR that were produced by the
3 contractor.
4 Pursuant to the affirmation communications
5 protocols NEAC members have monitored telephone conferences
6 and working meetings both public and closed between the NRC,
7 the NU, and Sergeant Lundy.
8 NEAC is satisfied that an arm's-length
9 relationship has been achieved and maintained and that the
10 work product from Sergeant Lundy is credible. My personal
11 observations from participating in nearly all of the public
12 working and private working level meetings differs from
13 others' characterize that this is hand holding.
14 We insisted on an independence criteria and it
15 evolved into an arm's-length criteria and the proof of that
16 was, when I went to this meeting, the first couple of
17 meetings, in fact all meetings, and when a question would be
18 asked by Sergeant Lundy with the NRC sitting between
19 Sergeant-Lundy and the utility, and the response from the
20 utility was a deer-in-headlights look like, gee, I didn't
21 know that's what you wanted, I was assured the process was
22 arm's-length. Others would look at as because there were
23 exchanges of information, I would attribute that to the
24 rigidity of the communications protocol and the fact that we
25 had to then go beyond exchanging pieces of paper to have

1 face-to-face communications.

2 However, the number of deferred items remains of
3 concern, particularly the number of level four DRs that
4 emerged from the CAVP process. The docketed commitment by
5 Northeast Utilities on March 9th regarding final corrective
6 action on deferred level for DRs, prior to the completion of
7 the next refueling outage is positively noted by NEAC.
8 Insofar as practical, and this is a suggestion, this should
9 be the standard goal for all current deferred items. In
10 other words, for the numbers that were shown this morning by
11 Mike and other that perhaps the goal should be that only the
12 level four -- commitment to the level four DRs is being
13 correctively pursued before the end of the next refueling
14 outage, but perhaps all that are currently on the table.
15 That level of confidence would perhaps be well received by
16 the public.

17 In addition, NEAC considers the prompt and
18 comprehensive implementation of Passport, it's a software
19 management control system, as essential for North East
20 Utilities to establish world-class deferred items management
21 control.

22 Management oversight and quality assurance. Many
23 of the observations noted in the preceding two paragraphs
24 have management oversight and quality assurance
25 implications. Specific observations of oversight have been

1 by the very nature and function rather limited.

2 Certainly the small number of level three DRs

3 resulting from the CAVP process reflect upon the validity of

4 oversight certification process. The results of ongoing NRC

5 inspections will add to this database.

6 The public and press have recently challenged the

7 role of oversight and the recirculations system are

8 assessed. But that was discussed earlier this morning.

9 We were similarly concerned. We were similarly

10 concerned because in the press reports we read, and as I

11 indicated to you, Commissioner Diaz, when you came and

12 visited that there seemed to be this risk taking that, well,

13 we'll test it and it if fails we'll take that risk. And

14 there was the fear that, well, we're rushing to schedule and

15 not doing what makes sense.

16 So I attended the April 7th meeting that the NRC

17 hosted at Northeast Utilities. Present were Northeast

18 Utilities and Sargent & Lundy. There was a very thorough

19 discussion of the events that led up to the detection of the

20 failure and the corrective action that resulted.

21 The failure was the result of cavitation. The

22 cavitation was neither predicted by anybody in the room,

23 neither the members of the oversight team nor the engineers

24 and design staff nor contractor experts from the field nor

25 Sargent & Lundy. That was what caused the sleeve to fail.

1 Now I agree with Don DelCore. The Navy knows a
2 lot about cavitation -- you know, propellers when I go fast,
3 velocity, speed and pressure and all that kind of stuff, so
4 I think there is probably something on the industry that
5 massive flow rates through orifices and cavitation ought to
6 be something to be studied even further, but I was assured
7 that the process that was described this morning by
8 Northeast Utilities whereby Oversight took a position, there
9 was a test created, there were criteria established, and
10 Oversight maintained a position in the process to the end
11 was in fact the role of Oversight in the process, and that
12 nobody was taking a risk.
13 There was a test to determine whether the
14 calculations were accurate and nobody predicted that
15 cavitation would cause the failure. I even asked the person
16 from Oversight that made the calculation whether he
17 predicted cavitation and he did not -- so it is my opinion
18 that Oversight appeared to properly execute its
19 responsibility in this particular situation
20 I would also add that having observed the NASB
21 meeting yesterday, there was a very frank, very objective,
22 very comprehensive and a firmly-focused meeting on all
23 appropriate aspects of nuclear safety.
24 In summary, I have the following observations.
25 First, the two NRC orders applicable to Millstone

1 3 have established credible, arms-length processes for
2 evaluating the progress of Northeast Utilities in
3 establishing an employee concerns program, a
4 safety-conscious work environment, and deferred items
5 management control.
6 Second, Northeast Utilities has demonstrated
7 steady, measurable improvement as documented in third party
8 contractors' reports and public presentations.
9 Third, process and procedures established and
10 maintained by the NRC for oversight at Millstone should
11 continue beyond restart and until measurable standards have
12 been achieved and maintained by NU. Sustained public
13 confidence in the safe operation of Millstone has not been
14 completely established.
15 I offered you a suggested metric in the area of
16 the Employee Concerns Program and Little Harbor. I would
17 suggest that upon release of the independent contractor,
18 Sargent & Lundy, consideration might be given to surprise or
19 unannounced inspections. My background in the Navy with the
20 operation and reactor safeguards exam was that annually you
21 got one, and then any time in between the team could show up
22 and they could inspect you again, and it certainly kept me
23 on my toes, and a process like that whereby an NRC team
24 either for an SSFI or something like that would show up
25 periodically and pick a system and check the status of the

1 corrective action program might be a way of continuing to
2 monitor the process on a kind of randomly selected basis.
3 Subject to your questions, this completes my
4 prepared remarks.
5 CHAIRMAN JACKSON: Thank you very much.
6 Questions?
7 [No response.]
8 CHAIRMAN JACKSON: Thank you. I would like to
9 call forward from the Connecticut Department of
10 Environmental Protection, Mr. Kevin A. McCarthy, Director of
11 Air Quality Monitoring and Radiation. Good afternoon
12 MR. McCARTHY: Good afternoon. Thank you, Madam
13 Chairman, Commissioner Dicus, Commissioner Diaz,
14 Commissioner McGaffigan -- thank you for the opportunity to
15 address you this afternoon.
16 As was indicated, my name is Kevin McCarthy. I am
17 the Director of the Radiation Control Division of the State
18 Department of Environmental Protection. I am also the State
19 Liaison Officer for the State of Connecticut and Governor
20 Rowland's representative to the Northeast Interstate
21 Low-Level Radioactive Waste Commission. Currently I am the
22 Chairman of that Commission.
23 I also frequently represent Commissioner Rock at
24 the Nuclear Energy Advisory Council meetings, the council
25 that we just heard from.

1 The DEP has several roles with regard to nuclear
2 power plants in the State of Connecticut. We have a
3 radiological response function and a non-radiological,
4 regulatory responsibility.
5 The radiological function includes the protection
6 of the public health and safety in the event of an emergency
7 involving the exposure or potential exposure to radioactive
8 material. This function, as you know, is not limited to
9 nuclear power plants but involves all facilities that
10 utilize radioactive material.
11 We obviously take that responsibility very
12 seriously and work very closely with your staff, other
13 federal agencies, other state agencies, local and private
14 organizations to ensure a constant state of readiness.
15 The non-radiological regulatory responsibility
16 involves the issuance of various waste permits, water
17 discharge permits and air permits.
18 We have been keenly interested in the
19 circumstances associated with the nuclear power plants
20 situated in Connecticut and have been following closely the
21 changes that have occurred at Millstone.
22 We have also observed positive changes at the NRC.
23 There are many very important issues that are
24 being addressed a Millstone. Time does not permit
25 addressing all of them. We heard a lot of them this

1 morning. They range from training, maintenance, equipment
2 replacement, quality control, quality assurance, emergency
3 planning, radiological controls, environmental monitoring --
4 and the list goes on.
5 However, one characteristic of the past senior
6 management team that trickled down to supervisors and many
7 of the employees was attitude, and I would like to talk to
8 it just for a moment.
9 The lack of a safety-conscious attitude on the
10 part of previous senior management led to a loss of respect
11 for the regulatory process. The loss of respect for the
12 regulatory process resulted in a decline in regulatory
13 performance and the lack of a safety-conscious work
14 environment at the Millstone Nuclear Power Complex.
15 The decline in regulatory performance resulted in
16 the NRC action that placed the Millstone units on the Watch
17 List.
18 Over the last several months we have received
19 reports and correspondence that indicates that the new
20 management team at Millstone is indeed demonstrating a
21 change in attitude. The Employee Concerns Program is
22 closely linked to the concept of a safety-conscious work
23 environment.
24 Recently, the independent third party oversight
25 program concurred that Northeast Nuclear Energy Company has

1 achieved a safety-conscious work environment at Millstone,
2 and NRC documents dated April 20th and April 21st and
3 others, but I am referring to those in particular, one of
4 which was entitled "Employee Concerns Program and
5 Safety-Conscious Work Environment Evaluation at Millstone
6 Nuclear Power Station" -- the documents generally reported
7 that although the team found two weaknesses in the
8 safety-conscious work environment that required attention,
9 the evaluation team found that the Employee Concerns Program
10 was well-established, that Northeast Nuclear Energy Company
11 had significantly improved the Employee Concerns Program,
12 and that the Employee Concerns Program was functioning
13 effectively.
14 The Department has received additional NRC and
15 contractor reports that indicates this very important change
16 in attitude.
17 In the area of the non-radiological environmental
18 programs, we understand that several improvements have been
19 and are currently being made to Millstone's non-radiological
20 environmental program. New policies are being implemented
21 and training to support environmental programs has been
22 conducted. Key station procedures now include environmental
23 considerations.
24 In conclusion, it appears as though the
25 effectiveness of NRC's regulatory program has improved. We

1 support the continued efforts to improve the
2 safety-conscious work environment which should result in
3 regulatory compliance at Millstone.
4 However, the commitment must continue. The
5 concepts of critical self-assessment, of questioning
6 attitude, conservative decision-making, and respect for the
7 regulatory process by both Northeast Utilities and the NRC
8 will result in a safer facility.
9 If you allow nuclear operations to continue at
10 Millstone, you must regulate and oversee with diligence to
11 ensure that all nuclear activities are performed in a safe
12 manner.
13 That concludes my remarks.
14 CHAIRMAN JACKSON: Thank you very much.
15 Commissioner?
16 COMMISSIONER McGAFFIGAN: I have one question.
17 The Citizens' Regulatory Council, which is going
18 to follow you, has given us an outline of their
19 presentation, and on it twice occurs the words DEP,
20 Department of Environmental Protection, I assume, violations
21 under the category of safety-conscious work environment and
22 health and safety.
23 Are there recent violations --
24 MR. McCARTHY: Yes.
25 COMMISSIONER McGAFFIGAN: -- that you'd want to

1 talk about.

2 MR. McCARTHY: There have been recent violations.
3 Right now they are in litigation and we are asked not to
4 discuss that litigation process, especially under these
5 conditions, but yes, there have been violations -- not only
6 the Department is concerned. The Attorney General's office
7 is also involved.

8 COMMISSIONER McGAFFIGAN: But that doesn't detract
9 from the statement you just made that on balance you think
10 that --

11 MR. McCARTHY: That's correct.

12 COMMISSIONER McGAFFIGAN: Thank you.

13 MR. McCARTHY: Well, what I did say was that in
14 their non-radiological environmental program they have
15 indeed, you know, improved and committed to additional
16 improvements.

17 COMMISSIONER McGAFFIGAN: Okay.

18 CHAIRMAN JACKSON: Any other questions?

19 COMMISSIONER DIAZ: You are saying the
20 non-radiological. How about the radiological program?

21 MR. McCARTHY: The radiological program -- we are
22 involved with that. As I indicated, you obviously take the
23 lead in the radiological program. We are involved to the
24 extent that we respond in the event of an emergency.

25 We become familiar with the plant. We need to

1 understand the operations at Millstone in order to
2 understand if there is any kind of an emergency how to
3 respond to that particular emergency, and you know, as I
4 said earlier, we feel that with the work that was done in
5 turning around the attitudes associated with upper
6 management, we feel that trickled down and it is a safer
7 facility, or will be.
8 COMMISSIONER DIAZ: Thank you.
9 CHAIRMAN JACKSON: Thank you very much.
10 From the Citizens' Awareness Network, I would like
11 to call forward Ms. Deborah Katz, their President, and
12 Rosemary Bassilakis.
13 MS. KATZ: Thank you for having us speak to you
14 today and thanks for having Rosemary come up with me. We
15 were both a little nervous about this, so we figured if we
16 were together, it would be safer.
17 CHAIRMAN JACKSON: It's safe, at any rate.
18 MS. KATZ: Well, safer. Always safety first.
19 I wanted to -- I am going to talk about the issues
20 of the -- issues of an absence of a safety-conscious work
21 environment, and Rosemary will focus more on the issues of
22 Little Harbor and standards.
23 One of the things that we are very concerned about
24 are the issues of intimidation and harassment and the
25 systemic mismanagement by Northeast Utilities that has gone

1 on over a period of time which resulted in, in fact, their
2 being closed for two years. And one of the things that is
3 -- and this is important to us because in fact we live in
4 impacted communities, and we in our communities suffer from
5 issues of intimidation and harassment when we question
6 what's going on at our local reactor. So how workers are
7 treated directly affects us, in fact, because if they are
8 intimidated, then the ability for communities to question
9 what is going on is really compromised to an even greater
10 extent. And since workers basically protect us by their
11 questioning, it is essential that an open atmosphere and a
12 democratic atmosphere happen.
13 I mean one of our concerns is that basically
14 Little Harbor has said that it would -- in terms of
15 intimidation and harassment and issues of allegations, it's
16 only on April 4th that NU actually got a passing grade. And
17 this is a minimal passing grade. This is just satisfactory.
18 In March they didn't pass. This is very serious to us. We
19 don't believe that the utility, until it has shown
20 significant passing grades for a period of time, should be
21 allowed to operate. And we also believe that they should
22 have to be able to stand alone before they stand operating;
23 that they shouldn't reach a point after they are operating
24 for a while where they don't need Little Harbor. They
25 should be able to demonstrate that they can do it without

1 Little Harbor, even though Little Harbor is still there, and
2 then Little Harbor should watch them during the period for
3 another six months at least after they are up. But to allow
4 them, with only three weeks of satisfactory performance, to
5 go on line in terms of work and intimidation is unacceptable
6 to us.
7 There have been repeated instances in terms of
8 worker harassment. There were the MOV workers and the
9 contractors who were fired there, managers and supervisors
10 were responsible, they were demoted and not fired. The
11 message to us is really anomalous in that we think these
12 were serious violations, and that it's true these people
13 left, but they -- the only people that have been fired have
14 been workers in this whole situation.
15 We are also very concerned with the Focus 98 memo
16 in which everyone knows there were issues of isolating
17 cynics, pockets of negativity, and in fact CAN submitted a
18 2.206 petition with Nuclear Information and Resource
19 Service, and we believe that a determination on that should
20 take place before restart is allowed.
21 Now Northeast Utilities is asking for the benefit
22 of the doubt, but we think the benefit of the doubt, after
23 two years of history on these issues, you know, is really
24 stretching things. And if it's true that it was meant --
25 and it wasn't meant to mean anything, then how come two of

1 their executives resigned? I mean it's sort of an anomalous
2 situation. If this was just mere accident and didn't mean
3 anything, well, why were two of the people responsible left
4 the company?
5 And if it is true that it was just an accident, as
6 it were, then somewhere they don't get it yet. They are not
7 getting it. And this is a serious concern to us, because if
8 they don't understand the power they have over their work
9 force, if they don't understand the effect that managers and
10 supervisors have over ordinary workers, they are not getting
11 it, and that really concerns us.
12 There is also Captain Guy Mendenhall who will in
13 fact talk a little later, but he has submitted a series of
14 complaints and concerns. As far as we know, no action has
15 been taken on these, and he will speak to those.
16 We also know that there are approximately five
17 allegations per month still being submitted to the NRC, and
18 this is very high in terms of what is going on in terms of
19 this company.
20 That's Northeast Utilities. And I just want to
21 focus, though, for a moment on the NRC Commission because
22 this systemic mismanagement at NU and their lack of
23 compliance with the rules and regulations couldn't exist
24 without, in a certain way, the NRC not doing their job,
25 which is of even more distress to us. I mean, you know, the

1 utility is not a human rights organization, but the agency
2 is here to protect our health and safety, and it hasn't done
3 it. And so we are concerned whether there has been
4 collusion or intimidation by NRC Staff or whether there's
5 been a kind of abdication on the front lines for the NRC to
6 be doing their jobs. We believe an investigation of this
7 has to take place for the public, us ordinary citizens in
8 the front lines with those reactors, to know that there are
9 people doing their jobs here.
10 We really believe that a message has to be sent at
11 this point that reactors in New England, you know, and
12 throughout the country, aren't going to operate the same way
13 they have, because Vermont Yankee is suffering from these
14 mistakes; Connecticut Yankee; there -- Maine Yankee; Pilgrim
15 has just gotten fined.
16 What we want the NRC to say is that, you know, you
17 are a strict, tough regulator and second-rate work will no
18 longer be accepted, and intimidation and harassment is no
19 longer acceptable or allowed by the NRC.
20 MS. BASSILAKIS: Millstone's safety-conscious work
21 environment must be held to tougher standards than those
22 currently put in place by Little Harbor. If your agency is
23 unwilling to hold them to tougher standards, then as Debbie
24 had mentioned, at the very least Millstone should
25 demonstrate that they can sustain an effective

1 safety-conscious work environment for a designated period of
2 time prior to restart.
3 You see, the inherent problem with your agency
4 accepting mediocrity from Millstone safety-conscious work
5 environment is that it leaves absolutely no margin, no
6 margin for the work environment to backslide without falling
7 into one of these categories that isn't acceptable to
8 restart. They are really right on the margin of being
9 acceptable, as Debbie pointed out. And that is really
10 unacceptable to us.
11 There could be an incident or event that could
12 take place that would definitely negatively impact this work
13 environment, and being in the community we don't feel
14 comfortable knowing that they are going to be on line at
15 that point in time, and we know they will be very hard
16 pressed to shut down in the future once they start up again.
17 So it would be of great comfort to us to know that
18 they have really gotten a handle on their safety-conscious
19 work environment enough that a backward slide wouldn't
20 negatively impact them.
21 Another inherent with the mediocre standards
22 currently in place is that Unit 3 will be operational as
23 Millstone safety-conscious work environment attempts to wean
24 itself from the unprecedented and extraordinary level of
25 management attention, legal advice and other resources. And

1 Millstone still does have to wean itself from Little
2 Harbor's hand-holding, and we would go on to say that we
3 don't think they have been at arm's length at all; in fact,
4 they have been very much involved with what's been going on
5 at Millstone. And it's very easy to behave a certain way
6 when you know you are being watched closely, but what is
7 going to happen as Little Harbor pulls back and is not
8 watching closely?
9 So this again is very -- this sort of
10 co-dependency is very dangerous, and Millstone should have
11 not only an effective safety-conscious work environment, but
12 one that can stand on its own two feet prior to restart.
13 Now Little Harbor, whose leaders are made up of
14 ex-utility executives, has a seemingly biasness towards
15 management, and this biasness seems to prevent them from
16 being fully objective, in our opinion. Little Harbor
17 allowed a new management to quantitatively compare 1997
18 leadership survey data to that obtained in 1996. Everyone
19 knows that quantitative comparison is invalid, yet Little
20 Harbor allowed Northeast Utilities to provide you, the
21 Commission, with this deceptive information during both the
22 August and December 1997 Commission meetings. Little Harbor
23 is giving the green light for restart, even with the
24 inappropriate nuclear oversight focus 98 list surfacing;
25 with all its underlying chilling tactics that it represents.

1 Little Harbor is giving the green light, even though 27
2 percent of the identified focus, otherwise called problem
3 areas, remain open. And this is after two years that 27
4 percent of these focus areas remain open. That's a long
5 time. And they're not resolved yet.
6 Little Harbor is giving the green light, even
7 though they were aware of Captain Guy Mendenhall's February
8 12th resignation in disgust with management, and the
9 employee concerns programs' lack of response to his
10 concerns, until after he went public on April 8th at an NRC
11 meeting.
12 Little Harbor also apparently finds it acceptable
13 that Millstone's employee concerns program still relies
14 significantly on contracted help; still 50 percent of the
15 employee concerns program is made up of contractors. This
16 is of concern. And I have raised this with Little Harbor,
17 you know, what's going to happen as this transition goes on
18 and contractors leave? Is it going to still be an effective
19 employee concerns program?
20 So we believe that Little Harbor is not holding
21 Millstone accountable to tough enough standards, standards
22 that are acceptable for restart. Little Harbor, however, is
23 not the regulating body charged with protecting public and
24 worker health and safety. It is the NRC who must protect
25 our communities. Therefore, we are asking you to require

1 Little Harbor to create a standard of excellence at
2 Northeast Utilities that will assure the safe operation of
3 the Millstone units if that is ever possible.
4 Thank you.
5 CHAIRMAN JACKSON: Thank you. Questions?
6 Commissioner Dicus?
7 COMMISSIONER DICUS: I think both of you indicated
8 that you believe that Northeast Utilities should have a
9 passing grade in their employee concern program as well as
10 the safety culture work environment program for quote,
11 unquote, some time. Could you characterize and define some
12 time?
13 MS. KATZ: You want to give that to me?
14 I would say they would need to do that for at
15 least six months; that they would need to get passing
16 grades. I mean in school we have to pass, to pass the class
17 and go on. We are not allowed to just get one grade that's
18 good and get the others that fail. So that I think they
19 should have to go through a whole term and pass the grades
20 before it could go forward. I mean I think they should do
21 what we had to do in school.
22 COMMISSIONER DIAZ: You know, you have mentioned
23 several times the fact that there are mediocre standards.
24 Would you expand on that, you know, how -- you know, what
25 are all those standards? Because it's a difficult issue,

1 and I'd like to know more, you know, what are higher
2 standards. What are they?
3 MS. BASSILAKIS: Higher standards would be
4 standards that could allow Northeast Utilities to slide
5 backwards without falling into the red. So if they were
6 held to a more excellence of a standard, that would be
7 possible, that an event could occur, there could be a
8 chilling effect in the organization but it wouldn't be such
9 that it would affect safety at the plant.
10 COMMISSIONER DIAZ: But is there -- you know, in
11 the -- I'm sure you have analyzed Little Harbor's
12 performance standards and so forth. Is there any one of
13 those that you could pinpoint and say this should be higher
14 than what it is? You know, 98 percent one time, and 83
15 percent. Is there one particular standard that --
16 MS. BASSILAKIS: No, and I'm referring to the four
17 attributes that they put up.
18 COMMISSIONER DIAZ: That's right.
19 MS. BASSILAKIS: Those are the standards that I'm
20 referring to.
21 COMMISSIONER DIAZ: You mean the yellow on the --
22 MS. BASSILAKIS: Yes, exactly. And, in fact, when they
23 first came out with their indicators and their, you know,
24 their whole criteria, restart could be obtained when
25 something still required management action. And, in fact,

1 they changed that. If it still required management action,
2 they would be allowed to restart, but because there was such
3 misunderstanding or concern about how it was worded, they
4 changed the way they laid out that format. But just high
5 enough standards that they could slip backwards and health
6 and safety wouldn't be impacted.
7 CHAIRMAN JACKSON: So you are saying it should be
8 beyond the yellow category?
9 MS. BASSILAKIS: Or at least maybe the yellow with
10 an up arrow, or something.
11 CHAIRMAN JACKSON: So you're looking for more
12 margin.
13 MS. BASSILAKIS: More margin. I mean let's have a
14 little margin here. This is a utility that went beyond
15 chilling workers. I mean they were frozen for a long time.
16 CHAIRMAN JACKSON: Okay. Thank you.
17 [Applause.]
18 CHAIRMAN JACKSON: Thank you very much.
19 I'd like to call forward from the Citizens
20 Regulatory Commission Ms. Perry-Luxton and Mr. Guy
21 Mendenhall.
22 MS. PERRY-LUXTON. Good morning, Chairman
23 Jackson -- I mean afternoon, Commissioner Dicus,
24 Commissioner Diaz, Commissioner McGaffigan.
25 I'm Susan Perry-Luxton from the Citizens

1 Regulatory Commission. I represent a grassroots citizens
2 group from Waterford, Connecticut, housed in Waterford,
3 originated in Waterford, but from southeastern Connecticut
4 as a whole.
5 We've been asking questions of your Commission and
6 Millstone for the last 2-1/2 years when George Glatas,
7 senior engineer at Millstone Station, revealed to the public
8 in the fall of 1995 that Northeast Utilities was operating
9 in a manner that was dangerous and illegal.
10 So we formed the group, and here we are, still
11 plugging away.
12 Joining me today are a few residents of
13 Connecticut who represent thousands who have grave doubts
14 about the readiness of this utility to restart. In the
15 final analysis the decision you make is not about programs,
16 not about pipes, and not about Northeast Utilities' profits,
17 it's about people, individuals and families living in
18 eastern Connecticut, the people that were here this morning
19 with the babies crying in the gallery and the young kids
20 sitting on the floor.
21 For the safety of our community, we're convinced
22 that Northeast Utilities' ECP or Employee Concerns Program
23 and safety-conscious work environment require a period of
24 successful, sustained performance. Mere improvement is not
25 sufficient.

1 Management oversight and quality assurance.
2 Assurance at this time should be vigorous, proactive, and
3 independent and effective. This would enable a true
4 recovery, but instead it has been and remains dysfunctional.
5 It has been and remains dysfunctional.
6 Regarding the management of the 5,700 or whatever
7 items that the management has on the deferred items list, we
8 don't believe that they should be deferring anything,
9 because we understood that when NRC came, Dr. Jackson came
10 to our community and said that all these things were going
11 to be fixed before restart. With the history that NU has
12 had of not fixing things -- I mean, some of those things on
13 the -- in this process were from ten years ago, they still
14 hadn't fixed them, and when they went down they had to be on
15 the deferred items list.
16 We go no, no, we don't want that, because we feel
17 that nuclear power is a controlled nuclear explosion within
18 the plant. The conditions of safety are very precise. The
19 process is an organic unity, and small details can lead to
20 major problems. But to ask us to accept 5,700 small details
21 is not acceptable because this is what got NU in trouble in
22 the first place is their inattention to detail.
23 So now what brings us to this conclusion is not
24 just experiencing the last two years of dealing with
25 Northeast Utilities, but also listening to the concerned

1 voices from the inside, because workers of conscience that
2 call -- to this day I'm still getting about two calls --
3 several calls a week from people in different departments
4 who express concerns to me or need to be given the names
5 of -- they don't feel they can go to ECP. They don't feel
6 they can go to Employee Concerns, and they don't feel they
7 can go to Little Harbor.
8 As a matter of fact, last week someone said I'm
9 not going to Little Harbor -- because I say, "Did you go to
10 Little Harbor? Would you go to the ECP?" And they said no,
11 they're not going to Little Harbor because we feel they're
12 in bed with the utility. This is an employee telling me
13 this. So when I'm still getting calls and the NRC is still
14 getting a lot of allegations, then something is not right
15 with the safety-conscious work environment. So if you're
16 going to fulfill your moral and statutory obligation to
17 ensure the protection of the health and safety of the
18 public, you must listen to these warnings.
19 nd I want to mention just a couple things. I have
20 three reports referring to the DEP question Commissioner
21 McGaffigan had that came out in March for violation of
22 permits that Millstone engaged in.
23 CHAIRMAN JACKSON: Why don't you hand them to the
24 secretary, please.
25 MS. PERRY-LUXTON. Oh, sorry. I forget where we

1 are.

2 And then I also have our mission statement and a

3 little bit about us. But --

4 CHAIRMAN JACKSON: Give it to the secretary.

5 MS. PERRY-LUXTON. Ninety copies was just too much

6 for me, 90 copies. So -- I almost didn't get here. I was

7 caught at the zoo with -- in the rain.

8 Now the reason -- I need to say one more thing,

9 and that is about the RSS. I had to leave this morning. I

10 couldn't take it anymore listening to Millstone management

11 about the RSS. To me the RSS modification failure was a

12 clear example that things are dysfunctional still at

13 Millstone, that ethics and leadership at Millstone are still

14 lacking, as they were when we got into this 2-1/2 years ago,

15 because they continue whenever an event happens, they

16 continue to spin it, to spin it so it comes out making them

17 look good. And I can't see how the calculation problem, the

18 relationship between oversight and the line that broke down

19 and the engineering, elementary engineering that was

20 evidence could possibly be put in the positive category for

21 them.

22 So that's all I have to say about that. But with

23 me today is a highly qualified individual with impeccable

24 credentials, a patriot, a veteran, a captain of nuclear

25 submarines who absolutely stunned us at a public meeting a

1 couple of weeks ago, and we felt that you had to hear his
2 story, because when we heard it, it stunned us because it
3 validated our concerns. The concerns that we've been having
4 for the last months were verbalized by this man who left the
5 company. That's why I wanted him to share our time. So I
6 give you Captain Guy Mendenhall.
7 CHAIRMAN JACKSON: Okay.
8 MR. MENDENHALL: With that introduction --
9 Chairwoman Jackson, Commissioners, I am Captain Guy
10 Mendenhall, United States Navy, Retired. I reside in Gails
11 Ferry, Connecticut.
12 I served as a commissioned officer in the Navy for
13 26 years, retiring from active duty in 1992. For 20 of
14 those 26 years I served in nuclear-powered submarines, where
15 I was responsible and accountable for the training,
16 qualification, operational performance of increasingly
17 larger-size organizations which operate and maintain nuclear
18 powerplants. For eight of those 26 years I was commanding
19 officer of two nuclear-powered submarines.
20 Additionally I served two years as a direct
21 representative of Admiral Rickover on one of his training
22 facilities. I reported to him at least weekly in writing on
23 the performance of students, Navy staff, and managing
24 contractors at nuclear propulsion training units where they
25 operated three reactors.

1 For five years following my departure from the
2 Navy and concluding with my resignation in February of this
3 year, I served as a lead auditor and then as a
4 self-assessment coordinator in the independent and line
5 nuclear oversight organizations and performance assessment
6 organizations at Millstone.
7 I have a very long list of prepared remarks today,
8 but I feel that I need to talk and address some of the
9 things that were brought up. And I know the time is an
10 item, and so I will not --
11 CHAIRMAN JACKSON: Let me say this to you. There
12 is a time limit, because (a) we have to respect everyone who
13 wants to present.
14 MR. MENDENHALL: Yes, ma'am.
15 CHAIRMAN JACKSON: And (b) one Member of the
16 Commission does have a time constraint, and we want to be
17 sure --
18 MR. MENDENHALL: Well, I will keep my time short.
19 CHAIRMAN JACKSON: To hear everyone. Thank you.
20 MR. MENDENHALL: I was to say the least blown away
21 by the presentation made by NU today. It's typical of what
22 bells and whistles and they have thousands -- they have
23 millions of dollars to spend on presentations and they have
24 millions of graphs and performance indicators, but that's a
25 different side of performance that I don't think they

1 understand.

2 There are two sides -- you have programs and
3 processes, and they tell the people how to do the job. And
4 you have leadership, and they lead them to do the job. And
5 for my five years at Millstone, I worked very hard to try to
6 work with the people there to instill leadership. Given I
7 was just a, you know, just an employee, I was not in a
8 position of leadership. But I feel a leader is a person who
9 can lead -- he can lead from any position if you do it
10 right.

11 I brought up issues similar to the ones that the
12 CRC brings up over and over again, and I was continually met
13 with one of three answers. It was -- the issue was either
14 trivialized, it was studied to death, or it was looked at so
15 narrowly that they only treated the symptom rather than the
16 real problem.

17 We say we have an effective corrective action
18 program. I worked in the correction action department for a
19 year in my assessment job, and we routinely had to question
20 people on root-cause analysis, people who didn't know how to
21 do it.

22 I can see the urgency to get the plant started up.
23 I understand nuclear is a very viable energy source. But
24 unless you have the leadership to run the plant and to lead
25 the people, it isn't going to work.

1 For 20 years Millstone was on a downhill slide. I
2 think people realize that now here. In 20 years they
3 created habits of the people that work there that cannot be
4 eliminated in two years, period. I don't care how many
5 Little Harbors or anybody else comes in and tells you.
6 What we've done is we've taught them how to say
7 the words so that when they get interviewed they can say the
8 words, they know, and they're scared to death about losing
9 their jobs. And so what -- this is not intentional on their
10 part, but what they do is they answer the question with the
11 key words and tricky phrases, but when they go out in the
12 field to operate, they don't know how to do it the way it
13 ought to be done, and management is not ready to supervise
14 them.
15 The management we have in our plant, if you ask,
16 you would find out that probably a handful of them have ever
17 really operated the plant. Using the rules we have, you can
18 be in management, you can be in high positions and never
19 having operated one of those plants. And I'm not talking
20 about getting a license. I respect people who get licenses,
21 but it's like a driver's license. You wouldn't give your
22 daughter or your son a driver's test and then send them out
23 to drive the car without some practical experience. Well,
24 that's what we're doing. We did it for years, and that was
25 somebody else's decision.

1 But the program I worked in for 26 years didn't do
2 that. And we don't have the safety record that's out in the
3 real world. The Navy is a very, very different environment.
4 I understand that. But there are certain basic fundamentals
5 that Admiral Rickover built into both of those programs.
6 And consistently during my time in Northeast Utilities the
7 answer I would get when I asked people why they were doing
8 things, they would say because the NRC says so. And I hear
9 that even today. Throughout my job I would challenge for
10 the basic fundamentals of why they were doing what they were
11 doing, to understand it.
12 Is my viewgraph up there? Can you put up my
13 viewgraph? Oh, okay. Good. This is a little bit of ad
14 libbing, and I'm not going to go very long. But this
15 graph -- you need to look at it while you're doing it. Oh,
16 you can see it I guess. That graph captures very precisely
17 the problem at Millstone. It's been that way. It took me
18 four years to figure it out. And I took that graph to Mr.
19 Kenyon last July and gave it to him, and I didn't get much
20 response. I don't know why. He never told me why. I've
21 given it to almost every senior management person at
22 Millstone, and I have yet to see anybody do anything with
23 it.
24 Looking at the graph, I don't want to, you know,
25 insult anybody's intelligence, but the more you know about

1 what you're doing, the more you understand what you're
2 doing, the less people have to write down what they're
3 telling you to do.
4 When I first at Millstone five years ago, I read
5 the procedures and I couldn't get through them, they're so
6 complicated, they're so -- and I said why are they like
7 this. And so I started kind of to help fix them. I
8 couldn't fix them because the rules to write them are so bad
9 that you can't fix them. And I concluded after four years
10 that people do not understand what they're doing to the
11 degree that with the fundamentals that they can operate on a
12 small number of documents so if they don't understand it to
13 operate it, they certainly don't know how to write the
14 procedures.
15 CHAIRMAN JACKSON: Do you have experience at any
16 other nuclear stations?
17 MR. MENDENHALL: Well, I was --
18 CHAIRMAN JACKSON: Commercial?
19 MR. MENDENHALL: No, ma'am. Well, Haddam Neck and
20 Millstone.
21 CHAIRMAN JACKSON: My question is do you have any
22 sense of the level of knowledge that you're speaking about
23 relative to --
24 MR. MENDENHALL: Well, I can give examples.
25 CHAIRMAN JACKSON: No, no, no.

1 Well, I'll take them in a minute.

2 MR. MENDENHALL: Okay.

3 CHAIRMAN JACKSON: But relative to any other

4 commercial operating station.

5 MR. MENDENHALL: I guess -- no, I don't. I won't

6 try to talk around that one. I do not know. But I do know

7 that when you ask a guy why he's doing what he's doing and

8 he can't explain it and he's not willing to go break out the

9 book and show you the book, he doesn't in most cases know

10 where the book is that explains it, and what do I conclude?

11 And I have challenged people individually on level of

12 knowledge frequently, and I do not get answers that make

13 sense.

14 That's one of the reasons why I left. I left

15 because I could not continue to try to go over the hurdles I

16 was going over just to get people to understand the problems

17 that we had. And every time I bring one up, I get this

18 trivialization, study it to death, or only look at the

19 symptoms. You miss the problem. So if you go out and fix a

20 symptom, and then the problem happens again, you know, what

21 would you? You are supposed to find out what the real

22 problem is and go fix it. We don't do that. We don't do it

23 very well. I can't say we don't do it all, but we don't do

24 it very well.

25 The real reason why I got even involved with this,

1 when I left Northeast Utilities, I told myself I am not
2 going back. I don't want to get involved with it, I'll let
3 them go. Well, on the last day I was there, I discovered
4 there was a problem and so I documented that problem in a
5 CR. And following the procedures, it took me all day to do.
6 I did it. Got home about 2:00 a.m. that night, they
7 probably fined me for being there too many hours. But
8 turned it in, got the guy to sign it, everything went
9 through. I find out a month later that that CR got
10 cancelled, or basically signed off closed because they said
11 there was no problem there. Okay.
12 First off, there's a rule in our process that says
13 if you -- when you disposition a CR, you go back to the
14 person that wrote it and you tell them why you didn't. I
15 purposely wrote on that CR, and I have a copy here if you
16 want to see it, I purposely wrote on that CR my boss's name
17 and said I am not going to be there, I knew I was leaving,
18 everybody knew, you need to go to talk to Gordon Winters was
19 his name. Okay.
20 Nobody ever went to him to talk to him about it.
21 They didn't even cover it with him, it just got signed off.
22 So I had one of my friends that worked there pull
23 the paper work out and send me a copy. And, lo and behold,
24 they said this is not a problem, you know, so we closed
25 this.

1 Well, I went back -- that's the real reason why I
2 even went to the NRC public meeting, was because I felt
3 like, gee, you now, this is something that I can't let
4 stand. I don't want to create any new work for myself, but
5 I at least want to finish the old work. So I went to the
6 meeting and that was one of the issues I brought up.
7 Subsequently, NU has looked at that and they said,
8 yeah, there is a problem. But they have said that they
9 can't meet the rules because -- they can't, it's too many,
10 there are too many impediments in the way, it takes too
11 long, costs too much, so they are going to try to get around
12 them.
13 CHAIRMAN JACKSON: What did this CR concern?
14 MR. MENDENHALL: The CR was measuring and test
15 equipment. Non-conformance reports. Your office, your
16 staff has questioned me extensively on it. In fact, I
17 worked with one of your staff during the time when the issue
18 first came up. The issue has been on the table for six
19 months, it's eight months now. And when I first brought it
20 up, it got shuffled off to the side. And one of your
21 fellows on our staff brought it up and said, What happened
22 to this? He asked us, and I was the guy responsible, and I
23 went and looked. I first thought it was taken care of.
24 Then I looked at saw it wasn't and, lo and behold, it got
25 shuffled away. So we resurfaced it October last year.

1 In between last October of last year and December,
2 the people responsible for that wrote a procedure change.
3 You know, everything is okay, but the procedure change
4 didn't change the -- didn't change the issue, fix the issue.
5 So when I left, I --
6 CHAIRMAN JACKSON: Did you view it as safety
7 significant? Did you view this --
8 MR. MENDENHALL: I viewed it not directly safety
9 significant, but it was a loophole in one of our processes
10 that could allow non-conforming -- or not non-conforming --
11 conditions adverse to quality to exist in the plant without
12 being looked at.
13 I can explain all the details. I have explained
14 it to your staff. They don't seem to argue with me that it
15 is a valid issue. In fact, they claim they still had it on
16 their list of things to follow. But if I hadn't written a
17 CR on it, they would be the only ones that are following it.
18 CHAIRMAN JACKSON: Okay.
19 MR. MENDENHALL: But my point is that that is not
20 the only one. I could go on ad infinitum, and I know you
21 don't want me to do that.
22 I will bring up one more thing, design control. I
23 got a copy of this. This is an assessment that was done by
24 Nuclear Oversight of the design control system in Unit 3, or
25 the -- yeah, design control. I read it on the way down

1 here. I didn't get it till last night, so I apologize for
2 not having not too much detail. But I read it, and I pulled
3 out some numbers out of it. Basically, there are three Mode
4 2 issues in here. They say that. There are zero Mode 4
5 issues. I wonder why. There are zero Mode 3 issues. I
6 wonder why.
7 There are problems with 50 percent of the
8 self-assessments that have direct impact on design control
9 reported in this audit. There are 25 percent of the 5059
10 safety screenings have problems. 70 percent of the minor
11 modification package are screened for safety
12 inappropriately. There's 41 percent of the CRs that cover
13 -- 41 percent of the CRs have safety valve problems, they
14 haven't been done on these CRs, to make sure that they are
15 really not safety issues. Okay.
16 Now, the bottom line is that this thing -- the
17 bottom line of this team was the team concluded that
18 although problems were found, the design process is
19 functional. Okay. And I don't know what functional means.
20 I was an auditor, okay. I was a self-assessor. I don't
21 know what that means.
22 I looked through -- they have to write a plan
23 which they are going to follow. I looked through the plan,
24 they didn't even finish following their plan, and it doesn't
25 say what functional means in their plan. To me, that's --

1 you know, but that's -- that is the oversight group doing an
2 audit. There's a lot of good issues in here, but not
3 characterizing it properly, sending it to management.
4 On one hand it gets in their desk one week, and
5 the same week they are standing and saying we got no
6 problems. I don't think that's -- I think the issue is
7 leadership. I don't think they have established what they
8 need in leadership to fix the problems. Anybody can fix
9 problems if you recognize them, acknowledge them and get on
10 and do it. But they don't have it. So that's --
11 CHAIRMAN JACKSON: Thank you very much.
12 Commissioner Diaz.
13 COMMISSIONER DIAZ: Yes. You know, listening to
14 you, you said you had been five years working at the plant.
15 MR. MENDENHALL: Yes, sir.
16 COMMISSIONER DIAZ: Yes. Let me, you know,
17 because you are an experienced officer. You obviously have,
18 you know, manager look at large organizations. And Chairman
19 Jackson just asked you a pointed question on the safety.
20 During your time, even during the operations, has there been
21 a point in which you, as an experienced person, have seen,
22 okay, or have experienced, have observed, or have
23 information in which the adequacy of the protection or
24 health and safety has been compromised? I am not looking at
25 the details of the valve. I am not looking at the other

1 things. Those are all important things, and I am not taking
2 the -- but I want you to get above that.
3 MR. MENDENHALL: I haven't seen any that -- I have
4 not seen any that haven't been reported and dealt with. The
5 problem, sir, is -- have you ever operated one of these
6 plants? I mean, you know, as an operator.
7 COMMISSIONER DIAZ: Yes, sir.
8 MR. MENDENHALL: Okay. Then we are talking the
9 same language. I'm sorry, I don't know your bio. The
10 problem is that when you have safety nets the way we have
11 them, there are interlocking and intermeshing. All the
12 systems are designed to work together. If you have a
13 deficiency in one system, it affects the operation -- it may
14 affect the operation of another system.
15 When you have hundreds of deficiencies that
16 haven't been analyzed properly, you are leaving yourself
17 open. Who can predict where the fault is going to be? Who
18 knows? You don't know where it is going to happen and what
19 -- and I am not trying to be, you know, save the world for
20 humanity, but there is some kind of evaluation that has to
21 be done on these issues to make sure. And if we have a
22 final safety analysis report that is not correct, and hasn't
23 been maintained for two years, part of what was in this
24 audit report says we didn't have knowledge and understanding
25 of the final safety analysis report.

1 CHAIRMAN JACKSON: Okay. Thank you.

2 MR. MENDENHALL: I am -- no direct, but they are

3 all indirect, and they are all --

4 CHAIRMAN JACKSON: Thank you. I am going to let

5 -- does anyone from Northeast Utilities care to speak to

6 this issue?

7 VOICE: Why should they?

8 MR. MENDENHALL: Why shouldn't they? I am ready

9 to answer their questions any time.

10 CHAIRMAN JACKSON: We are gong to get into an

11 audience/presenter debate.

12 Thank you very much. Thank you.

13 MR. MENDENHALL: Thank you very much. I

14 appreciate it.

15 [Applause.]

16 CHAIRMAN JACKSON: I now call forward Mr. David

17 Lochbaum from the Union of Concerned Scientists. Good

18 afternoon.

19 MR. LOCHBAUM: Good afternoon.

20 Slide 2, please.

21 I came here today to talk about the four items

22 that were on the scope for today's meeting, employee

23 concerns, safety conscious work environment, deferred items

24 management, and management oversight and quality assurance.

25 Slide 3, please.

1 UCS has no reason to doubt Little Harbor's
2 conclusion that the improvements made in the employee
3 concerns program support restart. The exception we want to
4 note is the 2.206 petition that was filed by Citizens
5 Awareness Network and the Nuclear Information and Resource
6 Service on the suppression of the Focus '98 memo. We think
7 that petition should be resolved prior to restart.
8 That would do two things. That would put that
9 issue to bed and it would also give some credence to the
10 only vehicle the public has for interacting with the
11 Commission, and that's the 2.206. We think that petition
12 needs to be closed prior to restart.
13 We feel that right now Little Harbor is serving as
14 the training wheels for the employee concerns program at
15 Millstone. It is essentially propping up, it could be
16 propping up the employee concerns bicycle. If Little Harbor
17 is correct, and we believe they are right, then those
18 training wheels could be taken off at this point. However,
19 the start-up of Unit 3 will stress the organization, or
20 could conceivably the employee concerns program. So we
21 think it is prudent to keep Little Harbor around until
22 sometime after restart. I don't have a metric on when that
23 point would go away, but we think it is prudent to keep
24 Little Harbor around until after restart of Unit 3.
25 Slide 4. Basically, the same thing with safety

1 conscious work environment. We have no reason to doubt
2 Little Harbor's conclusion that improvements to date at
3 Millstone Unit 3 support restart. At this moment it doesn't
4 appear that any employee with a safety concern will refrain
5 from raising it either to line management, to the employee
6 concerns program, to NRC, to the media, or to local
7 citizens. Our only concern would be there is some
8 hesitation with not going to line management employee
9 concerns, too many of these seem to be going outside. But
10 at least they are being raised. There doesn't seem to be an
11 unspoken thought at Millstone these days.
12 Slide 5, please. And there's an unfortunate typo
13 in Slide 5 that I need to point out. The second bullet,
14 "improperly" really should be "properly". It changes the
15 meaning somewhat.
16 We looked at the process by which Northeast
17 Utilities went through and decided which items need to be
18 done before restart and afterwards, and it is consistent
19 with what other problem plants have done. We did some look
20 at the actual deferred items, although not to the same
21 extent as we looked at corrective actions, and it appeared
22 that they were properly screened. We didn't see any
23 evidence that things should have been done prior to restart.
24 NU has backed up the deferred items with
25 commitment to close them off in a timely manner. We think

1 that's a good idea. That was a concern, that they would
2 defer and then other emerging issues would come up and those
3 things would never get closed out. But those commitments
4 seem to be sound and take care of that issue.
5 Our one concern in that area is that as Unit 2
6 then restarts, and if there is any new emerging issues on
7 Unit 3, those would be competing attention sources for the
8 closeout effort on the deferred items.
9 Millstone currently has, in our opinion, a weak
10 corrective action program, and it would probably only get
11 worse if you stress it any.
12 Slide 6. On management oversight and quality
13 assurance. We look at the RSS orifice modification as
14 providing ample reason to suspect the effectiveness of
15 management oversight.
16 The second bullet there, in our opinion, we
17 thought the reason for the RSS mod problems were NU placed
18 schedule demands ahead of safety. I learned this morning
19 that wasn't true, NU did the best it could, it just wasn't
20 good enough.
21 But we have looked at other plants like Grand Gulf
22 during its start-up, and Indian Point 3 during its -- when
23 it tried to get off the watchlist and it was essentially off
24 the watchlist. In both of those cases, and in others, the
25 NRC required either around the clock full-time presence or a

1 mentor to back up or provide confidence that was there due
2 to lack in confidence in the licensee. We think for
3 Millstone Unit 3 that would be a good idea to make sure that
4 either schedule ahead of safety, or just mistakes, or as an
5 additional safety net. There is no guarantee, but there's
6 an additional safety net. We think that would be a good
7 idea, there is a precedent for it.
8 On Slide 7, which is the summaries, employee
9 concerns program and safety conscious work environment, we
10 agree with Little Harbor, we have no reason to doubt Little
11 Harbor that things are ready to support restart. We feel
12 that Little Harbor should stay around for a while to monitor
13 until after restart just for insurance, and to make sure
14 there is no stress from that activity.
15 We think the deferred items at this moment appear
16 appropriate for restart, even given the volume is a little
17 larger than other restart plants. But this process is sound
18 and the volume is just a product of Millstone.
19 Management oversight and quality assurance, we
20 think is less certain for restart and to compensate for
21 that, we are recommending around the clock NRC or some
22 mentor presence that would guard against schedule over
23 safety mistakes or any other -- provide an additional safety
24 net for any other kind of mistakes that are made. With
25 that, that's the only comments.

1 Most of the comments we have on Millstone are on
2 the other issues, and we would like to come back and address
3 those at a future date.
4 CHAIRMAN JACKSON: Let me ask you a couple of
5 questions. You talk about stress and it may only get worse
6 as resources shift to Unit 2, if Unit 3 started up. Do you
7 believe that the quarterly progress reports to the NRC will
8 provide for adequate verification of the licensee's
9 commitments? I mean you are basically seeming to suggest
10 that the actual independent oversight, do you mean in terms
11 of having an independent contractor continue to be involved
12 for some period after restart? Is that what you are
13 recommending?
14 MR. LOCHBAUM: The reason for the independent
15 oversight was the quarterly closeout schedule by itself
16 would be good if you had a good corrective action program,
17 because then you could throw resources at it and close them
18 out.
19 When you have a suspect corrective action rate,
20 the items may be closed, but you may not be fixing anything.
21 So you can meet your schedule paper-wise but not be doing
22 anything quality-wise. So that's why the closeout schedule,
23 without some assurance that the things are actually resolved
24 correctly, is not enough. That's why we thought the
25 independent contractor or some oversight in addition to the

1 work-off curve would be a strong confidence factor.

2 CHAIRMAN JACKSON: NRC oversight?

3 MR. LOCHBAUM: I guess, in our opinion, if it was

4 Region 1 providing that oversight, we would have that

5 confidence. We have less confidence in Special Projects

6 office.

7 CHAIRMAN JACKSON: Okay. Could you give me one or

8 two examples of what you feel demonstrate a weak corrective

9 action program?

10 MR. LOCHBAUM: What we looked at to reach that

11 determination was NU's response to the corrective action --

12 or the DRs that were identified by Sergeant and Lundy. we

13 went to Sergeant and Lundy's web site, pulled off several

14 dozen items that had been responded to by Northeast

15 Utilities and then look at what Sergeant and Lundy's

16 evaluation of that response was. So it wasn't our

17 determination of what NU proposed, it was what Sergeant and

18 Lundy thought of what NU proposed.

19 Our numbers were about 20 percent of those

20 category were being returned to Northeast Utilities for more

21 work. And I have heard -- over the last few months and

22 weeks, I have heard talk about the communications protocol

23 and not understanding the question and things like that. We

24 saw some of those. And we recognize that that is another

25 Millstone unique situation that isn't there at others. But

1 that's not the only reason for 20 percent. That may knock
2 it down to 15, that doesn't knock it to zero. And that's
3 too high.
4 What concerns us most about that is those are the
5 most visible corrective actions that probably anyone in the
6 plant is ever going to work on, and if you can't get those
7 right, the chances of getting the deferred items right is
8 less, in our opinion. So that's what led us to the
9 conclusion the corrective action was a problem and why we
10 think that needs to be addressed.
11 CHAIRMAN JACKSON: Okay. Why is that you feel
12 regional oversight is better than the Special Project
13 oversight?
14 MR. LOCHBAUM: We draw that conclusion on going to
15 some of the meetings. We regional oversight asked a lot of
16 probing questions similar to the way you ask questions about
17 the licensee and others. The first answer, the nice and
18 easy answer isn't sufficient. The regional folks generally
19 follow it up with probing questions and make you generally
20 explain why you feel something is adequate or that your
21 schedule is going to be met.
22 From looking at the Special Projects tapes of
23 public meetings and reading some of the transcripts, most of
24 the questions are on schedule and cost, and those -- those
25 don't give us the same comfort level as either Region 1 or

1 Region 3, or any of the other regions, or NRR for that
2 matter.
3 CHAIRMAN JACKSON: Okay. I understand.
4 Any questions? Commissioner.
5 COMMISSIONER McGAFFIGAN: Can I ask, how satisfied
6 were you with the explanation on the RSS problem this
7 morning? Was the first time you had heard that level of
8 detail about --
9 MR. LOCHBAUM: I've heard that, or variations of
10 that before.
11 COMMISSIONER McGAFFIGAN: Okay.
12 MR. LOCHBAUM: The thing that wasn't mentioned is
13 that the reason that RSS mod was made was to fix a problem
14 with pump vortexing. And when you simply swap problems, one
15 had been a problem for 15 -- or 10 years, and you swap that
16 for a problem that breaks the lines in a few minutes. You
17 know, whether Oversight was involved or not involved, it
18 simply is not supposed to happen if you do your 5059s
19 correctly, and that was not a 5059 that was even close. So
20 there was a serous problem with that mod, and whether it was
21 Oversight's fault, or however you draw the line, NU was
22 ultimately responsible and they blew that one fairly
23 largely.
24 CHAIRMAN JACKSON: Do you have a feeling as to
25 whether you think it is indicative of other problems, you

1 know, deeper problems, or do you think that is an isolated
2 incident?
3 MR. LOCHBAUM: We think it is an isolated
4 incident. But an isolated incident right prior to start-up
5 in a high profile fishbowl doesn't bode very well once you
6 don't have this great attention. You know, that's the
7 stress we are talking about after restart. When a plant is
8 on-line and something comes up on backshift, are you going
9 to RSS mod it, or are you going to do it correctly? Those
10 are the issues we are worried about.
11 CHAIRMAN JACKSON: Okay. Commissioner.
12 COMMISSIONER DIAZ: Yes. Going back to the weak
13 corrective action program, and the basis on the 20 percent,
14 and I think the percentage, you know, is really not the
15 issue.
16 MR. LOCHBAUM: Right.
17 COMMISSIONER DIAZ: Because they might vary in
18 importance and according to risk and so forth. Do you have
19 something that, you know, for the Commission, you can tell
20 us, what is the base in which you say is weak? I mean it's
21 -- have you looked at similar processes?
22 MR. LOCHBAUM: Well, actually, I was responsible
23 for closeout items at Indian Point 3, Fitzpatrick and
24 Brown's Ferry 2 in the restart projects in the '80s.
25 COMMISSIONER DIAZ: Right.

1 MR. LOCHBAUM: The other two are more recent. And
2 also Salem prior to joining UCS, I was on the Salem 2
3 restart effort. And those processes were similar. You had
4 a large number of items that had to be closed out before the
5 plant could restart. Similar issues. I mean there are
6 variations, but they are similar.
7 I was responsible both for closing out items and
8 also for reviewing items proposed, closure proposed by
9 somebody else. In all those efforts, I didn't see the
10 volume of problems that were evident at the DRs for Sergeant
11 and Lundy.
12 And it also goes back to the communications
13 protocol. On those efforts you have a large volume of
14 things to do in a short order. You don't sit down with
15 every initiator of those items and find out exactly what the
16 guy meant when he wrote the piece of paper. You have a
17 college education, you have had some training, you read it,
18 and you go out and close it. So that -- I think that
19 communications protocol is being blown all out of
20 proportion.
21 COMMISSIONER DIAZ: Okay. But, you know, let me
22 focus on the volume issue. The volume might be because we
23 have a microscope that is turned to a higher power, which
24 means that this issue or in this case, it was taken a step
25 farther than normally. How about the quality? You know, if

1 we drop the volume, how about the quality? From your
2 experience, because you reviewed it.
3 MR. LOCHBAUM: Right. Well, I think the volume
4 issue, the person who works on an individual response is
5 working on that individual response. He doesn't know if
6 there's 10,000 others or not. If that person in the review
7 chain, it's usually not just one person, there's a technical
8 review and so on, if that chain can't get it right, then
9 there is something wrong with that review process, that
10 whole corrective action process.
11 I have worked on projects where the threshold was
12 way too low. At Salem, if you parked illegally, that
13 entered the CR process, because security put a wheel lock
14 your car and that entered the process the same as the
15 reactor had been held on with velcro. It was the same
16 process. So we closed out an awful lot of things that
17 should never have been in there.
18 So I have seen the volumes before and I have seen
19 other people -- in fact, I haven't seen anybody not handle
20 corrective actions like Millstone is doing now and that is
21 what troubled us.
22 COMMISSIONER DIAZ: And how is that?
23 MR. LOCHBAUM: Well, given the fishbowl that they
24 are under right now, and the seeming pressure to get the
25 unit back on-line, if they can't do corrective actions any

1 better than about 15 to 20 percent, whatever the numbers
2 turn out to be, that doesn't suggest to us that after the
3 Special Projects office leaves and all these independent
4 contractors, and all these other special precautions are
5 gone, that their corrective action rate will be any better
6 when normal, quote, "normal issues" come up after restart.
7 CHAIRMAN JACKSON: I'm sorry.
8 COMMISSIONER DIAZ: No, go ahead.
9 CHAIRMAN JACKSON: Net. Net. Are you saying that
10 the corrective action program is weak to the point that they
11 should not restart at this point? Or are you suggesting
12 that their corrective action program has weaknesses and if
13 they are allowed to restart, they need to be watched very
14 closely? Those are separate questions.
15 MR. LOCHBAUM: Right.
16 CHAIRMAN JACKSON: They are different.
17 MR. LOCHBAUM: It's hard for us to say that the
18 corrective action program is flawed to the part that it
19 shouldn't allow restart. We have strong concerns and we
20 were going to address that in the next issue. That gets
21 back to -- if that corrective action process is flawed, it
22 is going to manifest itself somewhere down the line. If we
23 confidence in the NRC or something to step in and draw the
24 line to make sure the plant doesn't operate unsafely, then
25 they could start up with an unsafe -- or a deficient

1 corrective action program and somewhere down the road they
2 are going to come back down. And I guess we are going to
3 address that a little bit later.
4 Right now what we see is the corrective action
5 program isn't -- is only costing them only, because things
6 are being iterated back and forth between Sergeant and Lundy
7 and Northeast Utilities, and eventually the right answer is
8 being obtained and the thing is being closed properly. We
9 think Sergeant and Lundy is gong a very good job of
10 maintaining high standards and making sure that it is done
11 right. So we think the corrective action program is weak
12 but Sergeant and Lundy has the patience to stick it through
13 to the end.
14 CHAIRMAN JACKSON: So it is not unlike what was
15 said in the employee concerns area. You don't know that
16 they can iterate alone? Is that what you are telling me?
17 Iterate to solutions.
18 MR. LOCHBAUM: Well, we can they can. Right now
19 Sergeant and Lundy is forcing the iteration. Once Sergeant
20 and Lundy leaves --
21 CHAIRMAN JACKSON: That's what I am saying.
22 Iterate alone.
23 MR. LOCHBAUM: That's correct.
24 CHAIRMAN JACKSON: Okay.
25 COMMISSIONER McGAFFIGAN: This is the subject of

1 the next Commission meeting, but is the same analogy where
2 we are talking about keeping Little Harbor there for six
3 months at least, or so, after restart, would Sergeant and
4 Lundy being there watching the program be one of the
5 safeguards that you may be coming back to us on in a week or
6 two?
7 MR. LOCHBAUM: I think it's a safe bet, yes.
8 CHAIRMAN JACKSON: You are getting your heads up.
9 COMMISSIONER McGAFFIGAN: Early notice.
10 CHAIRMAN JACKSON: Anything else? Thank you very
11 much?
12 MR. LOCHBAUM: Thank you.
13 CHAIRMAN JACKSON: I would like to call forward a
14 group of Millstone employees, Mr. Harry Blank, Mr. Dave
15 Collins, Mr. Gary Verdone and Mr. Mike Meehan, who I
16 understand are rehired employees.
17 MR. BLANK: Yes, we are.
18 CHAIRMAN JACKSON: Okay. Thank you. Good
19 afternoon.
20 MR. BLANK: Good afternoon, Chairman. Good
21 afternoon, Commissioners. Thank you for having the time to
22 see us today.
23 My name is Harry Blank and with me is Dave
24 Collins, Gary Verdone and Mike Meehan. We are here as
25 employees of Northeast Nuclear Energy. We are not your

1 average employees though. We were part of the 104 employees
2 laid off in January 1996. Each of us had safety concerns
3 that were addressed by the management at that time by
4 labeling us as whistle-blowers or non-team-players and
5 terminating us as soon as was possible. They didn't want to
6 hear what we had to say, regardless.
7 We, individually and collectively, have been with
8 the company for over 60 years, through good times and bad,
9 and into the recent problems in the '90s. Our experience
10 included the many changes in management and leadership that
11 occurred as NU attempted to deal with the problem of the
12 '90s.
13 When asked about the mistreatment of employees and
14 whether the company was concerned with employee loyalty, the
15 former leadership indicated to us, if you want loyalty, get
16 a dog. When it came to maintaining the plant, the attitude
17 was if it is not necessary to do it, then it is necessary
18 not to do it. That was the decline of Millstone. The
19 attitudes brought them to where they were in March '96 when
20 the NRC placed them on the watchlist.
21 Attitude comes from the top. There have been
22 numerous management changes at Millstone in the last two
23 years. The management there now, in the form of Bruce
24 Kenyon, has the attitude we will do it right. We believe
25 him, and we had more reason than most not to. It takes a

1 man with a great amount of integrity and courage to admit a
2 wrong and to extend a hand and mend fences. Bruce Kenyon is
3 that sort of a man.
4 During the time we were out of Millstone, we were
5 not their best friends, to put it mildly. We talked
6 sometimes from totally opposite corners of an arena. Bruce
7 extended his hand first, we accepted and haven't regretted
8 it.
9 The new environment at Millstone is a far cry from
10 the old one that we were removed from. Questioning
11 attitudes are encouraged, no reprisals are sought. The old
12 regime is dead. Problems are no longer overlooked, the
13 answers are sought. Solutions determined and then
14 implemented, regardless of the cost, the time, or whose
15 fault it may have been in the past.
16 We have been rehired with no hint of retaliation.
17 We have been welcomed back by everyone. NU's trust of us
18 has extended to the point of placing one of our group in the
19 employee concerns program. We have not taken that display
20 of confidence lightly.
21 Others today will try to influence you that
22 Millstone Power Station should remain closed down, as long
23 as possible or maybe forever. That meant that the
24 management is not different from the old regime. Employees
25 still feel the chilling effect about reporting problems.

1 They are wrong. We are back as full-time employees, now
2 contributing and committing to the effort to get Millstone
3 Power Station back to its former position as a leader.
4 There are people on the outside throwing stones as best they
5 can. They can theorize and guess as to what has happened in
6 the new Millstone environment, but we are in it, we can see
7 it, and we can feel it.
8 There is new attitude at Millstone, it is the
9 result of Bruce Kenyon's leadership. The attitude is we
10 will do the right thing and we will do whatever it takes to
11 get it done right. The units will not start until you give
12 it their blessing and will not also start more so than Bruce
13 Kenyon feels they are safe to start. People follow a good
14 leader. Mr. Kenyon has established a new leadership with
15 new guiding principles, and he has overcome the huge hurdle
16 of previous management's reputation.
17 The NRC, the DPUC, the CRC have all done what they
18 were chartered to do. They safeguarded and they created
19 change when there was a need for it. The management has
20 changed, attitudes have changed, and ethics have all
21 changed. And Millstone is not what it was in January 1996.
22 It is time now to move forward and look at the positive.
23 We ask the NRC to give Northeast Utilities the
24 opportunity to show through actions, not talk, that they
25 have indeed changed. Two years ago none of us present here

1 as rehired employees would have asked that. It was rare in
2 Connecticut for whistle-blowers to be given their jobs back.
3 Bruce Kenyon had the guts to do that. And by doing that, he
4 eliminated a lot of the chilling effect that used to exist.
5 Two years ago NU felt that having the loyalty and
6 commitment of employees was meaningless. They were wrong.
7 Kenyon and his management team, through their leadership,
8 have instilled an attitude of caring and respect for the
9 individual, and for doing things right. They have now
10 earned our trust, our respect and our commitment. We know
11 the difference between the former management and the new
12 management, and they are like day and night.
13 Actions speak louder than words. NU's actions in
14 the past have demonstrated a commitment to the employee and
15 to nuclear safety work environment concerns that should
16 hopefully restore both the community's and the NRC's trust.
17 We ask the NRC to listen to us. We know, we were, and we
18 still are in the middle of it. Thank you.
19 CHAIRMAN JACKSON: Thank you very much.
20 Commissioner?
21 MR. BLANK: No questions. Any questions?
22 CHAIRMAN JACKSON: Thank you very much.
23 MR. BLANK: Thank you.
24 CHAIRMAN JACKSON: I would like to call forward a
25 second group of Millstone employees, Mr. Joseph Amarello,

1 Jerilyn DuFreen, Richard DiBernardo and Donna Harrington
2 Burns.
3 MR. AMARELLO: Good afternoon, Chairman Jackson
4 and fellow NRC Commissioners. We appreciate the opportunity
5 to speak to you today. My name is Joe Amarello, and I am
6 here with my co-workers Rich DeBernardo, Gerry Duefrene, and
7 Donna Harrington-Burns.
8 We are members of an ad hoc group of employees who
9 came together back in February for the purpose of focusing
10 on all the positive activities that are happening in
11 Millstone station.
12 We want everyone to know that there are great
13 things happening at Millstone station; great things in the
14 areas of leadership and employee attitudes.
15 The four of us took the day off from work today
16 and drove down here last night to attend this meeting
17 because we believe there is not a more important place for
18 us to be today.
19 This meeting is about the restart of Millstone
20 Unit 3, and one of the major focus points is the
21 safety-conscious work environment. A safety-conscious work
22 environment is all about people, their attitudes,
23 perceptions, and beliefs. We would like to tell you a
24 little bit about these attitudes, perceptions, and beliefs
25 of some workers at Millstone station.

1 Our ad hoc group has initiated some significant
2 activities that we feel demonstrate the presence of a
3 healthy safety-conscious work environment at Millstone
4 station. I want to talk about a couple of these.
5 First, our ad hoc group developed this statement
6 which, if you will please put it up on the overhead. This
7 statement stresses our belief in the safety and our
8 confidence in Millstone station's management to address our
9 safety concerns. This statement was signed by 1553 workers
10 in less than 36 hours.
11 Second, our ad hoc group initiated a newspaper ad
12 campaign and raised $4125 to place a full-page ad in the
13 local newspaper. I brought a copy today and I'll give it to
14 the Secretary.
15 CHAIRMAN JACKSON: Thank you.
16 MR. AMARELLO: The significance of this effort was
17 the widespread involvement and enthusiasm that the campaign
18 generated. This money was raised mostly in $1 and $5
19 increments collected in the work spaces, collected in a
20 glass jar outside the cafeteria at lunch. People were
21 excited. They saw the advertisement that we had posted,
22 they read the words, they wanted this message of our belief
23 in safety and trust in our management to get out to the
24 local community.
25 These two activities were initiated by our ad hoc

1 group, but they were made successful by the participation of
2 thousands of workers at Millstone station. So what is our
3 message to you today? It is that a safety-conscious work
4 environment is alive and well at Millstone station, and more
5 importantly, we believe it is here to stay. Each of our
6 co-workers would like to say a few words.
7 Donna.
8 MS. HARRINGTON-BURNS: Good afternoon. My name is
9 Donna Harrington-Burns, and I have worked for Northeast
10 Utilities for over 10 years.
11 CHAIRMAN JACKSON: Can you talk a little more into
12 the microphone. Thank you.
13 MS. HARRINGTON-BURNS: Sure. A number of years
14 ago I would have found it very difficult to sit here at this
15 table and talk to you about some positive aspect about the
16 safety-conscious work environment because, frankly, we
17 didn't have one. At that time I worked as an instructor.
18 It was my job to teach the managing for nuclear safety
19 course. I think you have heard about that before, that it
20 is and it continues to be training for supervisors on how to
21 handle safety concerns. It is an excellent training program
22 and emphasizes supervisory responsibility to listen to
23 workers, to respect and value differing opinions, and to act
24 as an agent for employees as they bring forward their
25 concerns.

1 In 1994 and 1995, when we were teaching this
2 course, it was a very difficult class to teach. There was
3 very little evidence that NU management truly embraced these
4 principles, and although we appealed to each supervisor's
5 sense of personal responsibility, it was very difficult to
6 convince employees that they needed to do the hard work
7 necessary to change their own behaviors and attitudes when
8 they didn't see upper management committed to the same.
9 I no longer teach, but I have seen some dramatic
10 changes in the attitudes and behaviors of our management,
11 and I think it is more than just attitudes and behaviors.
12 It's really about a change of heart, and there are any
13 number of KPIs that you can measure, but you can't really
14 get a feel for how people feel.
15 The change that we see in our management has
16 allowed us to also change as a group of employees. I think
17 that we are more respectful, we are a more respectful work
18 force because we are treated with respect, we are more open
19 to ideas because our ideas are listened to. That has made a
20 difference.
21 I consider myself an employee of conscience, and I
22 will not misrepresent the fact that we still have things
23 that we need to do. This is not perfect. But I really do
24 believe that as a company this management acts with good
25 will; that we have now programs and processes in place that

1 allow us to go forward; and that together we can partner and
2 create the kind of work environment that we need to have.
3 Thank you.
4 CHAIRMAN JACKSON: Thank you.
5 MS. DUEFRENE: Hi. My name is Gerry Duefrene and
6 I am an employee of Northeast Utilities as well. I have
7 also lived at East Lyme, which is a neighboring community of
8 Waterford, for over 20 years.
9 I speak for myself when I say that I would never
10 work in a place that I felt was unsafe and one that could be
11 detrimental to my health, the health of my family, friends,
12 and the community.
13 I also would not work in a place that I was
14 uncomfortable in voicing a concern. If I had any questions
15 on things that happened at Millstone, I have gone to my
16 supervisor with questions. I have been treated with respect
17 and even taken out into the plant to see what was going on
18 for myself. I am a secretary there, I am not a technician,
19 I am not an engineer, but I want to know how it works, and I
20 have a boss -- I've had bosses that take me out there and
21 explain things to me. I still couldn't recite it to you
22 word for word, but I understand a lot better because of
23 their patience with me and their taking the time to educate
24 me on how it works.
25 In my job, I work with several levels of workers

1 from directors to mechanics, electricians and technicians.
2 I have observed meetings where they work together for
3 solutions to issues that have come up. To me, this is a
4 team working together, and I have complete faith in my
5 co-workers and our management to safely get us ready for
6 restart. I am proud to be an employee of Northeast
7 Utilities, and anyone who knows me knows that I speak for
8 myself and no one can tell me what to say or what to
9 believe. I have my own mind and strong opinions.
10 I would like to thank you for your time. It means
11 a lot to us to have been able to come down and express
12 ourselves, and we appreciate it. Thank you.
13 MR. DeBERNARDO: Good afternoon. My name is Rich
14 DeBernardo, and I have worked at Northeast Utilities for
15 five and a half years. I started at Connecticut Yankee and
16 transferred to Millstone 14 months ago where I currently
17 work as an electrical systems engineer for Unit 3.
18 Over the last 14 months at Millstone, I have seen
19 numerous changes in management. One of those changes in
20 management is management's commitment to making the right
21 decision, given the right information.
22 I had the opportunity to present the management
23 team a modification to enhance the reliability of the four
24 120 volt vital AC inverters at Unit 3. This modification
25 was only a system enhancement. It was not an NRC commitment

1 or required for restart. After a number of meetings with
2 the management team, the management team concluded that this
3 modification would be implemented prior to restart.
4 This team effort, to me, was one of the many
5 examples of management's commitment to doing the right
6 thing. We greatly appreciate this opportunity to share our
7 experiences with you.
8 MR. AMARELLO: We'd like to just at this point
9 welcome any questions that you might have for any of us in
10 the group.
11 CHAIRMAN JACKSON: Thank you. Thank you very
12 much.
13 I would like to call forward Mr. Donald W. Del
14 Core, Senior.
15 MR. DEL CORE: Good afternoon, Commissioners.
16 I certainly would like to thank you for the
17 opportunity to speak here today. And I would also like to
18 comment that I think it needed to be done at an earlier,
19 many earlier sessions.
20 I think the input from the public is very, very
21 important, and I think that unfortunately we have only had a
22 very few minutes to provide you with some input.
23 So possibly if you have other plants in the future
24 that happen to go on a watch list or happen to be shut down
25 and you continue your quarterly updates, I would hope that

1 you would include public comment on each and every one of
2 those.
3 First of all, let me give you a little bit of
4 background about myself. I was a former Navy nuke and as
5 such I was a senior reactor operator on a couple of
6 submarines and engineering watch supervisor. I was a Navy
7 instructor for a couple years, and I have also been in the
8 civilian world. I worked for Stone & Webster in security
9 engineering, working on nuclear security backfit projects.
10 I worked for Nuclear Engineering Services out of Danbury,
11 and in that capacity I worked at Duane Arnold Energy Center
12 as a contractor in the QC department involving welding
13 changes and welding type repairs to the reactor water
14 clean-up at a boiling water reactor. And also I was
15 involved in the replacement of target rod valves and so
16 forth at the quality control end of it.
17 Additionally, I worked at Shoreham Nuclear Plant
18 as training coordinator, setting up their cold license plant
19 training program and teaching a number of courses there. So
20 to give you a little bit of background about what I was
21 doing, I also worked at Millstone as an electrician for
22 approximately a year and then as an instrument technician
23 and specialist for about 12 years at Unit 2.
24 One of the comments I think that's important to
25 identify here is we have had an awful lot of discussion

1 about the safety-conscious work environment and the employee
2 concerns program, and I think it is interesting to point out
3 that, you know, not everybody, but I think for the most part
4 what I have heard here is everybody is trying to tell you
5 that they think Little Harbor needs to stay on.
6 If Little Harbor needs to stay on, they are not
7 ready to run, folks. They are not ready to run by
8 themselves. So if there is any indication -- and that's
9 what I seem to have gotten here is everybody feels they need
10 to have Little Harbor there as sort of this insurance
11 policy. Maybe somebody wants them here for three months;
12 somebody wants them here for six months; somebody wants them
13 here for -- to be sure that everything is status quo before
14 they walk off. If that's what we need, then don't let NU
15 start up.
16 I am not against them starting, I am against them
17 starting so that they can safely and adequately run the
18 plant. We are talking about a place for 10 years that
19 hasn't had what I would consider a safety-conscious work
20 environment or an atmosphere that is conducive to getting
21 employees to come forward with concerns.
22 I had the Chairman of the NRC come to me in 1986,
23 Lando Zech, talked to me in the Unit 2 control room and
24 asked me what I thought about Millstone. 1986, it was a
25 great place to work. And when we had a problem, Mr. Sellin

1 and the managers under him shut the plant down, fixed it,
2 and we started it back up.
3 In 1987, it was a whole different ball game, and
4 from there on it's been downhill ever since. And you should
5 not take that lightly and you should not make the bare
6 minimum requirements for employees concerns and work place
7 environments the criteria here. That's not what I think I
8 heard the Commission say; that's not what I think I heard
9 Chairman Jackson say at her public meetings, and I think we
10 need something, an environment that's much better than
11 adequate, and I think that it was well covered by the
12 individuals in CAN that pointed out there's no slideback.
13 Cynics, the word cynics has no place in a
14 safety-conscious work environment. It should have never
15 been brought up in any context in a safety-conscious work
16 environment. It's absolutely unacceptable, and I don't care
17 how NU chose to indicate it was used in a sentence or how
18 they redefined it, it has no place. And the very fact that
19 some manager or some director or some vice president felt
20 that there were cynics in his organization suggests to me a
21 much bigger problem than what I've been hearing from Little
22 Harbor Consultants regarding that work place environment.
23 There's a problem there somewhere. Something is wrong, it
24 should not be there.
25 I kind of got the sense from Commissioner Diaz's

1 comments about some individuals he talked to in the
2 oversight that weren't happy with the oversight and didn't
3 feel like the oversight was doing the job it should, I kind
4 of got the feeling, sitting there this morning, that maybe
5 he was talking to some of those cynics. That's very
6 disturbing, that individuals have concerns and that their
7 boss's sense that they're cynics, that they're developing
8 some kind of overhead projection or so-called memorandum to
9 identify that issue. Nobody that ever worked for me would
10 be considered a cynic because he had differences in an
11 opinion. I don't think that's right and that's a real
12 problem.
13 This morning Mr. Kenyon talked about strong
14 backgrounds in engineering. I beg to differ with you. I am
15 an instrument technician and I would know enough not to put
16 an orifice that reduced an opening from 10 inches to 3
17 inches with something immediately downstream of it. I think
18 it's general engineering knowledge, freshman knowledge, that
19 you need a certain number of pipe diameters downstream of an
20 orifice in order to let the flow get laminar so you don't
21 have a lot of velocity changes, disturbed water flows; I
22 can't believe they did that. It seemed to me they did it
23 out of a rush. Seemed to me if you got a 4000 gallon a
24 minute pump and you needed to pump 2500 gallons a minute,
25 you'd take a couple of stages out of it. That probably

1 would have took too long. So we did the quick fix.

2 The problem with oversight, the problem with

3 quality control, and the difference between the line, a

4 number of issues, but primarily NU submitted numbers for

5 flows to do an evaluation for cavitation that were not

6 equated to the flows they actually used in the test.

7 The other issue -- and you should take a look at

8 that. They have a number of reports that they wrote on

9 that; you probably ought to take a look at that. I think

10 the flows are up around 25 or 2800 gallon a minute, and what

11 they submitted to Stone & Webster and what they submitted to

12 Westinghouse was somewhere down around 2200 gallons per

13 minute, and I think the resident expert that they had look

14 at that indicated that around 2000 gallons a minute was when

15 they started seeing the minute cavitation bubbles.

16 An issue that is very important to the RSS issue

17 is the fact that there were some calculation errors

18 identified by Sergeant & Lundy. Interesting enough,

19 Sergeant & Lundy reviewed that exact system, RSS, as a part

20 of the ICAVP, and it's amazing to me that they didn't come

21 up with the problems that came about. I find that very

22 interesting. I find it even more interesting that your SPO

23 Department has them going back and re-reviewing the Rev. 1

24 to that modification. I think that's rather strange.

25 On top of that, I looked at the -- I know we're

1 not talking about the ICAVP, but I think we're talking about
2 corrective actions and I think we're talking about oversight
3 issues, and they direct -- they relate directly to the
4 workplace environment and to employee concerns, because you
5 have to have this ability to correct problems when people
6 identify them and, of course, we know that didn't take
7 place.
8 Having said that, the ICAVP identified as of the
9 7th of April some 380 issues of deficiencies which both NU,
10 Sergeant & Lundy and your SPO have agreed to, and of that,
11 there were 158 Level 4 calculation and calculation control
12 errors, an additional five Level 3 calculation and control
13 -- calculation control errors, and there were 147 that had
14 not been resolved yet. That was the go-between that the
15 Union of Concerned Scientists talked about back and forth,
16 back and forth. So I imagine there were more.
17 Interestingly enough, 14, I believe, of the 17
18 that Sergeant & Lundy found because the SPO asked them to
19 review the RSS modifications, most of those were associated
20 with calculation errors. A calculation error was why the
21 cavitation problem wasn't discovered.
22 If it was me, I wouldn't let anybody start it up
23 until you went back and looked at all of the calculation
24 situations, not only on the four systems that they looked
25 at, but at the 84 systems. Talk about an emerging expansion

1 of ICAVP and your SPO not looking at it -- I don't care if
2 they're Level 4; I think it meets the Level 4 criteria that
3 says if you have a programmatic issue emerging or there's a
4 trend, you need to take a look at it. They're not looking
5 at that. We brought that up meeting after meeting after
6 meeting in the public meeting in Waterford. They're not
7 addressing it. I think you need to look at that.
8 You know, somebody talked this morning about keys
9 in vehicles and security. That problem has gone on at
10 Millstone for ten years. And you would think they would
11 have it fixed right now, but they don't. That's amazing.
12 I'm absolutely amazed about that.
13 The Nuclear Committee Advisory Group that was
14 discussed earlier, which is the trustee oversight, I think
15 they're doing their job, because if it wasn't for them, the
16 two guys in the MOV Department and the engineer that got
17 demoted over that MOV issue would have never even been
18 offered their jobs back, as far as I'm concerned. I think
19 if you look at Little Harbor Consultants' report, you will
20 find that a call was made from NCAT to Mr. Kenyon and I
21 think that's why Mr. Kenyon changed his mind and brought
22 those boys back.
23 I have no question that the four people who were
24 just before you have a lot of veracity. I'm sure they
25 believe in their company and I'm sure they're very

1 comfortable with what they're doing. I'm not convinced the
2 previous for did because those were individuals that
3 communicated with me when they had complaints and lawsuits
4 against NU because they couldn't come back to the company.
5 Speaking of people calling me, I contacted you,
6 Wayne Lanning, a couple of weeks ago because I have an
7 individual who has three very significant concerns, what I
8 believe are concerns, and he doesn't want to come forward.
9 He is afraid he's going to be retaliated and identified, and
10 a couple of other people.
11 The issue, he feels, will directly relate to him
12 and originally had given me the issues and asked me to try
13 to deal with the NRC on a confidential basis, and since then
14 has had bad feelings about it and has retracted the comment
15 from me that he wants me to come forward and talk to the NRC
16 and I had to do that. I think you need to be aware of that.
17 I wish I could discuss the issues here. I can't do that.
18 Only suffice to say that they are issues, they need to be
19 fixed. The company is aware of them. I don't think the
20 company is going to come forward and tell you about them,
21 but I think they need to get addressed.
22 I think a very, very important issue with regard
23 to the RSS issue, with regard to oversight, with regard to
24 quality control and quality assurance, quite plainly, there
25 was inadequate test review by both the line and by QC and

1 QA. If that was the case, they would have known enough to
2 look at the transverse axial requirements of those
3 transducers to look at the vibration. The fact that they
4 didn't and went back to the manufacturer of the expansion
5 joint and he asked what the numbers were for axial and
6 transverse and they couldn't give them transverse numbers
7 and then they went back and hooked up the transverse
8 detectors and then realized they were way over the limit.
9 So what that really speaks to is somebody didn't
10 adequately review the work order. Somebody didn't
11 adequately review the design. If they did, they wouldn't
12 have put an orifice right next to an expansion joint anyway.
13 So there's lots of problems there and, you know,
14 to say it's an isolated case, I don't know, but you don't
15 want to talk to me about having a strong engineering
16 background at Millstone because I'm very concerned about
17 that.
18 The period of performance -- at which time
19 Millstone says they're ready is when you should start
20 looking at the period of performance. They need to show you
21 some sustained performance with regard to all the areas that
22 they are being evaluated for, and from the time they say
23 they're ready, that's when we start evaluating them, that's
24 when we should be looking at what they're doing. Some
25 people have brought that up to you, and I think it's a very,

1 very important issue, because we have seen event after event
2 after event there.
3 Corrective action -- we've seen all kinds of
4 events. If I get an opportunity to come back to this table
5 and talk to you at the next meeting, I'll talk to you about
6 corrective action and I'll show you some problems with
7 corrective action that I think need to be addressed.
8 Recent noncompliances in the Nuclear Training
9 Department with regard to the nuclear training manual in
10 that there was a course taught for shift technical advisor
11 where there was some falsification of documents which
12 essentially established that the program had adequate lesson
13 plans and lesson guides, both for the simulator and the
14 taught course.
15 I guess what that does is begs to differ with Mr.
16 Bowling's conclusion that the procedure compliance program
17 is working. That was pretty recent -- February, January. I
18 don't think it's working right, guys. You need to take a
19 look at that.
20 The last success criteria that was ID'd by Ms.
21 Garde seems to underscore the fact that Little Harbor is
22 continuously, has been continuously intervening and
23 consulting to ensure that things get done correctly with
24 regard to workplace environment and employee concerns. If
25 that's the case, then that's what's going on. That

1 reinforces what I told you before. We can't do that. If
2 you're going to need Little Harbor around, and it appears,
3 from what the Union of Concerned Scientists said, they're
4 going to need S&L around to be comfortable, then these guys
5 aren't ready and we shouldn't be looking at that.
6 CHAIRMAN JACKSON: Can you --
7 MR. DEL CORE: Yes, I will.
8 John Beck's final statement to you regarding
9 Little Harbor leaving sort of demonstrates to me the same
10 thing I just identified about Ms. Garde's comments. They're
11 not real sure about it, so how can we be real sure about it?
12 I thank you for your time, and I would like to
13 include in this record* all the letters that I have submitted
14 to the Commission as a part of this proceeding if that is
15 possible.
16 CHAIRMAN JACKSON: Yes.
17 MR. DEL CORE: Thank you.
18 CHAIRMAN JACKSON: Thank you. Thank you for
19 coming.
20 I'm going to call forward the NRC staff, but we're
21 going to take a three-minute break here.
22 [Recess.]
23 CHAIRMAN JACKSON: We will continue with the NRC
24 Staff, with respect to the three issues under discussion.
25 Mr. Callan.

* Secretariat Note: All correspondence from Mr. Del Core to the Commission is part of the Commission's official record and maintained in the Commission's Office of the Secretary.

1 MR. CALLAN: Good afternoon, Chairman,
2 Commissioners.
3 As usual, as is our lot, the NRC Staff will
4 provide the closing presentation, concluding presentation
5 today.
6 Our presentation this afternoon will differ from
7 our past presentations in the sense that in the past we have
8 focused on status of the activities that the SPO is
9 providing oversight for. Today our focus will be more on
10 Staff conclusions and recommendations relative to the
11 restart readiness of Millstone Unit 3 in the three areas
12 before the Commission this afternoon.
13 With me at the table are Sam Collins, to my right,
14 who is the Director of the Office of Nuclear Reactor
15 Regulation; to my left is Bill Travers, who is the Director
16 of the Office of Special Projects, and also at the table are
17 Bill's three main deputies, Gene Imbro, Phil McKee, and
18 Wayne Lanning.
19 Dr. Travers will be the main Staff presenter.
20 Bill?
21 MR. TRAVERS: Good afternoon.
22 As Joe indicated, we are here before the
23 Commission today to talk about three principal issues and
24 our conclusions about each one of those.
25 After I make a few introductory background

1 comments, Phil McKee is going to be addressing the aspects
2 of the Employee Concern Program and Safety-Conscious Work
3 Environment, and then Wayne Lanning is going to be
4 addressing oversight quality assurance, and I am going to
5 follow with a discussion of the backlog management issue.
6 By way of background, the NRC Staff is continuing
7 its oversight at Millstone and we are using the guidance in
8 the NRC Inspection Manual, Chapter 0350, to guide us. That
9 guidance was used to develop the Millstone Review Plan,
10 which we submitted to the Commission in SECY 97003. We are
11 essentially using the same plan that we established back in
12 January of '97 and we have been using that throughout.
13 For each of the Millstone units, the Staff has
14 developed a Restart Assessment Plan which identifies the
15 issues which need to be resolved before the Staff provides
16 the Commission with the restart recommendation.
17 Importantly, the Restart Assessment Plan
18 incorporates the issues associated with the two orders which
19 have been issued regarding required improvements in the
20 Employment Concerns Program, Safety-Conscious Work
21 Environment, and conformance with design basis licensing
22 basis.
23 This slide lists the key elements that we have
24 contained in our RAP and several of which we are going to
25 talk about today.

1 In addition to -- rather, before I begin by
2 turning it over to Phil, let me just mention, as you have
3 heard today that our program has been continuing, I think,
4 to meet its commitment to involve stakeholders in this
5 process. We recognize that the people who live in the area
6 of the Millstone plants have a vested interest in our
7 program and how we approach our job, and I won't go over the
8 numbers of meetings or anything like that that we have had,
9 but we are trying to continue to actively involve the people
10 who live in that area in our process.
11 With that, I will turn it over to Phil McKee to
12 discuss --
13 CHAIRMAN JACKSON: Let me just ask you two things
14 in going forward.
15 If at any point any of your conclusions rests on
16 inspection reports that have not yet been made public, for
17 the record, will you so indicate?
18 MR. TRAVERS: Yes. We will be happy to do that.
19 CHAIRMAN JACKSON: And secondly, you know, you
20 were tasked with independently reviewing the quote/unquote
21 "Cynics Memo" -- and somehow through your presentation I
22 think it would be helpful to give your conclusions in that
23 regard.
24 MR. TRAVERS: Perhaps we could just give you a
25 status, since we are not yet complete with that review. It

1 will be completed essentially in the issuance of a response
2 to the 2-206 petition that we have, but if I could briefly
3 run down the events.
4 Following the issuance of that memo, and we became
5 aware of it, I issued a letter to the utility, a demand for
6 information letter, that required them under oath and
7 affirmation to provide us with their assessment of the
8 events associated with the language in that report and
9 whether or not in their view there were any violations of
10 NRC regulations.
11 Subsequently to my issuance of that letter, they
12 have responded. They conducted an -- well, they conducted
13 an investigative report or an investigative assessment of
14 the issue. They have given us their assessment of that.
15 They have given us the actual investigative report resulting
16 from that.
17 We are now in the midst of an independent
18 assessment of that information and we expect to close that
19 issue in our response under the 2-206 petition, and we
20 expect that that could be within weeks. We have essentially
21 completed what we need to do to gather the information to
22 make our assessment.
23 If there are no other questions, I will turn it
24 over to Phil.
25 MR. McKEE: Thank you. Good afternoon.

1 I am just going to touch briefly on some
2 background. I recognize some of this information has been
3 covered previously.
4 In December, 1995, NRC formed the Millstone
5 Independent Review Group to assess how employee concerns and
6 allegations were handled at the Millstone Station.
7 The Review Group found that in general an
8 unhealthy work environment which did not tolerate dissenting
9 views and did not welcome or promote questioning attitude
10 had existed at Millstone Plants for the past several years.
11 These problems had been recognized by Northeast
12 Utilities' self-assessments as early as 1991 and again in
13 some of their assessments in root cause analysis in 1995 and
14 1996.
15 Because of these concerns, on October 24th, 1996,
16 NRC issued an order to Northeast Utilities requiring
17 specific actions to be taken to resolve problems in their
18 processes for handling employee safety issues. The order
19 required specific actions.
20 One, it required Northeast Utilities to submit for
21 NRC review and comment a comprehensive plan for reviewing
22 and dispositioning safety issues raised by employees and
23 ensuring that employees who raised safety concerns can do so
24 without fear of retaliation.
25 Secondly, it required Northeast Utilities to

1 submit for NRC review and approval a proposed third party
2 organization to oversee implementation of its comprehensive
3 plan.
4 Third, it required that the third party
5 organization, once approved, to submit for NRC review and
6 approval a plan for overseeing Northeast Utilities'
7 implementation of their plan.
8 Lastly, the order required, the order specified
9 that the third party oversight will continue to be
10 implemented until the licensee demonstrates by its
11 performance that the conditions which led to the requirement
12 of the oversight have been corrected to the satisfaction of
13 the NRC.
14 I just wanted to make those points because that
15 bears on the structure of our review and analysis.
16 Whereas the first three elements of the order
17 specify actions to be completed prior to restart of a
18 Millstone unit, the remaining element, the NRC determination
19 of cessation of the third party oversight was not linked to
20 the facility restart but to demonstrated licensee
21 performance.
22 The Staff anticipates, and this was discussed I
23 believe earlier here, that the decision can be made on the
24 continuing need for the third party oversight about six
25 months following the restart of a Millstone unit.

1 The order did not specify requirements for restart
2 of Millstone units. The Special Projects Office Restart
3 Assessment Plan addresses this aspect and specifies that
4 Northeast Utilities' programs for handling employee concerns
5 need to be improved and effective to support the restart of
6 any of the Millstone units.
7 The next slide, please.
8 To kind of give you an overview here, the Staff's
9 approach for the assessment of Northeast Utilities' progress
10 in upgrading programs for handling employee concerns was
11 provided as an attachment to the Special Projects Office
12 December, 1997 Commission paper.
13 The assessment plan presents the Staff's
14 methodology for determining progress made by the licensee to
15 improve their Safety-Conscious Work Environment and
16 operations of their Employee Concern Program.
17 The Staff's plan purposely distinguishes between
18 Employee Concern Program and Safety-Conscious Work
19 Environment activities. I might just give a brief
20 description here that the Employee Concern Program refers to
21 the licensee's formal organization and program that handles
22 concerns raised by employees which arise outside the normal
23 line organization function.
24 Safety Conscious Work Environment refers to a
25 broader perspective of work environment in which employees

1 are encouraged to raise safety concerns and the concerns are
2 promptly and appropriately resolved with timely feedback to
3 the originator.
4 The Staff's assessment approach included
5 independent Staff evaluations of the licensee's
6 Safety-Conscious Work Environment activities and review and
7 monitoring of Little Harbor oversight of those activities.
8 This approach provided the Staff with independent
9 assessment of the status and effectiveness of Northeast
10 Utilities' programs as well as providing a comparative basis
11 for establishing confidence in Little Harbor's oversight
12 findings and conclusions.
13 In implementing this approach, the Staff
14 evaluation of Little Harbor focused on their oversight
15 processes, the thoroughness of their activities, and
16 completeness in implementation of their oversight plan.
17 Staff's evaluation of Northeast Utilities'
18 Employee Concern Program included a limited scope assessment
19 of organizational support, conduct of their activities, and
20 assessment of the results of their investigations.
21 Staff's evaluation of Northeast Utilities'
22 Safety-Conscious Work Environment activities included staff
23 assessment of key program functions that support a
24 Safety-Conscious Work Environment.
25 In the next couple of slides I will cover some of

1 these aspects of our looking at Little Harbor and the
2 Employee Concern and Safety-Conscious Work Environment with
3 a little more detail.
4 If I can have the next slide, please.
5 First, I would like to provide an overview of
6 Staff's actions -- before I do that, I want to provide an
7 overview of the Staff actions to review Employee Concern and
8 Safety-Conscious Work Environment activities.
9 This slide lists a broad range of the activities
10 that we performed over the period.
11 The first three items listed concerns -- Staff
12 actions with respect to the order. Staff reviewed and
13 provided comments on Northeast Utilities' comprehensive
14 plan. Staff reviewed and approved Northeast Utilities'
15 proposal for a third party organization, and Staff reviewed
16 and approved the third party organization and their plan and
17 their oversight plan.
18 Following approval of Little Harbor Consultants as
19 the third party oversight organization, Staff initiated
20 periodic meetings between Northeast Utilities, Little Harbor
21 Consultants, and the NRC. These working meetings provided a
22 means for Little Harbor to present the results of their
23 oversight activities, including their presentation of
24 observations, their findings, recommendations, and
25 conclusions.

1 The licensee had an opportunity to present the
2 results of their planned implementation activities in
3 response to past -- and they also responded to past Little
4 Harbor recommendations and the status of their performance.
5 CHAIRMAN JACKSON: And how effective do you think
6 those meetings were?
7 MR. McKEE: I think those meetings and the
8 preparation involved in those meetings was very critical to
9 our processes.
10 I think it brought forward the issues in an open
11 forum. Those meetings were open to the public and to
12 everyone's knowledge and response to those issues, so I
13 think not only the meetings themselves but the preparation
14 and the follow-up after them were critical in our processes.
15 Since October, 1997 at a frequency of about every
16 other week, the Staff or an NRC contractor has been present
17 at the site with the sole responsibility to monitor the
18 licensee Employee Concern Program and Safety-Conscious Work
19 Environment program activities, their implementation, and
20 also that individual was observing the activities in the
21 oversight activities of Little Harbor Consultants.
22 In December, 1997 -- a week in December, 1997 and
23 a week in January, 1998 NRC conducted a team evaluation of
24 Northeast's Employee Concern Program and Safety-Conscious
25 Work Environment Programs and their implementation.

1 During the same period some of the same
2 individuals involved also did an evaluation of Little
3 Harbor's oversight activities. Staff closely tracked the
4 licensee's development, use, and assessment of Employee
5 Concern Program and Safety-Conscious Work Environment
6 performance measures, many of which you have heard earlier
7 today.
8 An inspector was assigned to NRC's team inspection
9 of Northeast's corrective action program to assess how
10 concerns raised by employees were addressed through use of
11 normal line organization processes. The inspector on the
12 team also assessed the willingness of employees to raise
13 concerns through the corrective action program and their
14 comfort in using this process.
15 MR. TRAVERS: If I may just add one point here,
16 while we have issued our team evaluation report of the
17 assessment of both Little Harbor and Northeast, the
18 corrective action inspection report has not yet been issued.
19 A quick look summary of our significant results
20 has been issued, to respond to your direction.
21 CHAIRMAN JACKSON: Thank you.
22 MR. McKEE: Yes. I might add, and it will save me
23 from mentioning it in the future, our reports on our
24 oversight of Little Harbor Consultants and our report on the
25 Employee Concern Program, both of those reports have been

1 issued. We had quick look reports on them earlier, but the
2 final reports have been issued.
3 The Staff also followed personnel actions taken by
4 the licensee or contractor that raised concern of potential
5 discrimination or chilling effect.
6 Our attention for these actions was directed on
7 the processes used by the licensee for handling of these
8 incidents.
9 Okay -- if I could have the next slide, please.
10 Little Harbor's NRC approved plan for overseeing
11 licensee activities highlights three primary functions. The
12 slide may be a little confusing in that the activities
13 listed under each of these three functions or functional
14 areas refer to Little Harbor activities and not NRC
15 activities.
16 Staff's evaluation of Little Harbor's oversight
17 concentrated on their implementation in these major
18 functional areas.
19 Regarding the first element of Little Harbor's
20 plan and that is listed as "Assessment of Millstone Safety
21 Culture." Staff found that Little Harbor's structured
22 interviews conducted once -- the first one was in the summer
23 of 1997 and again in February 1998 to be thorough,
24 well-structured, and carefully administered. Further staff
25 found that Little Harbor's periodic assessments of

1 licensee's performance with respect to the 12 attributes of
2 an ideal safety conscious work environment and Little
3 Harbor's assessment of the licensee's four success criteria
4 included accurate and acceptable supporting bases.
5 With respect to the second major element of Little
6 Harbor's plan, that's program evaluations, staff found
7 Little Harbor's programmatic evaluations to be well planned,
8 conducted, and documented. Soon after their approval Little
9 Harbor conducted significant or major programmatic reviews
10 and provided recommendations regarding the licensee's
11 comprehensive plan and also their employee concerns program.
12 Staff found that Little Harbor's review of the employee
13 concern program implementation, including investigation
14 processes, assessment of harassment and intimidation
15 concerns and documentation and findings to be particularly
16 thorough and effective in identifying potential programmatic
17 weaknesses that were later addressed by the licensee.
18 In addition, Little Harbor conducted assessments
19 of the effectiveness of other licensee programs supporting a
20 safety conscious work environment including Northeast
21 Utilities' corrective action, self-assessment, and oversight
22 programs. Staff found these assessments to be thorough and
23 complete.
24 Further Little Harbor conducted independent
25 investigations and monitoring of alleged incidents of

1 harassment and intimidation, the long word, retaliation, and
2 discrimination and I'll try not to use the word "HERD" as
3 our acronym for that, and chilling effect.
4 These investigative and monitoring activities were
5 considered by the staff to be well planned and
6 comprehensive.
7 Regarding the third major element of Little
8 Harbor's plan, communications and reporting, the findings of
9 Little Harbor cultural assessments and programmatic reviews
10 were presented at the periodic open public meetings with the
11 licensee and NRC. These are the meetings I was speaking of
12 before. Little Harbor also presented the findings that one
13 major element was the presentation of their findings of
14 their surveys and also their assessments of attributes.
15 From May 1997 through April 1998 nine meetings
16 were held. At these meetings and in follow-up
17 correspondence Little Harbor presented some 111
18 recommendations. Staff found these recommendations were
19 representative of thorough program reviews and appropriate
20 input for enhancing program effectiveness.
21 As specified in Little Harbor's oversight plan,
22 they have -- Little Harbor has effectively tracked the
23 licensee's response to each of these recommendations.
24 Further, staff found that Little Harbor's documentation of
25 their activities, including details provided in their

1 quarterly reports provided a sound basis supporting their
2 findings with respect to cultural assessments, performance
3 evaluations, and program reviews.
4 In summary, staff considers that Little Harbor has
5 effectively carried out its oversight activities.
6 Could I have the next slide, please?
7 Special projects -- special project office
8 evaluation of Northeast Utilities employee concern program
9 was derived mostly from the findings of the NRC team
10 evaluation conducted in December of 1997 and January of
11 1998.
12 The team looked at several key aspects of the
13 program and audited several concerned investigation cases.
14 Staff found the employee concern program organization which
15 consists of a staff of about 23 people had independence,
16 resources and management support to perform thorough,
17 unbiased investigations. Staff found that employee concern
18 program staff and investigators to be well qualified and
19 appropriately trained for their assigned tasks. Staff
20 audited 18 employee concern program case files and found
21 that employee concerns were prioritized based on safety
22 significance. Identities were protected, case resolution
23 was timely and there was appropriate follow-on corrective
24 action. Staff further found that the conclusions of the
25 employee concern program evaluations were properly supported

1 by investigations. The investigations were unbiased,
2 corrective actions were proper the resolve the issues and
3 communications with employees about their concerns was
4 improved and being further enhanced.
5 CHAIRMAN JACKSON: Did you question any of the
6 case file resolutions that would have resulted in any
7 different conclusions? So you're saying, to the extent that
8 you looked at the case file resolutions you agreed with
9 them?
10 MR. McKEE: We agreed with the resolutions. We
11 saw -- some discrepancies were found in our review and some
12 of their capturing -- in one case they found some of the --
13 one elements of a concern may not have not been captured for
14 follow-up, and also categorization. But the resolutions we
15 didn't find any issues with the resolutions.
16 And we did some comparison or this. These were
17 cases that had gone through the process and I don't believe
18 that Little Harbor had found issues as we were making some
19 comparative analysis. And I think partially because of
20 Little Harbor's recommendations early on in April and a
21 combing of the cases, the cases in the files, and the
22 preparation were done very well.
23 Staff found that the employee concern program
24 management was using performance measures effectively to
25 trend and analyze emerging issues of performance trends and

1 initiate actions as may be necessary.

2 The Millstone independent review group found in
3 their evaluation serious interface problems between the
4 employee concern program and other organizational elements,
5 particularly human resources. Early in their program
6 evaluations Little Harbor consultants also found
7 programmatic deficiencies in these interfaces.

8 The staff team evaluation last December and
9 January found organization interfaces between the employee
10 concerns program, organization, other organizations and
11 particularly that of human resources were well integrated
12 and much improved and they were operating effectively.

13 The NRC evaluation team reviewed self-assessments
14 and found that they covered a broad spectrum of employee
15 concern program activities, were improved from earlier
16 assessments and were appropriately self-critical.

17 Based on its review staff considers that the
18 employee concern program had made significant improvement
19 over the past year and was an effectively operating
20 organization.

21 Can I have the next slide, please?

22 Special projects office evaluation of Northeast
23 Utilities safety conscious work environment activities was
24 derived principally from the findings of the NRC team
25 evaluation conducted in December of 1997 and January 1998,

1 the staff's on-site monitoring of Northeast's safety
2 conscious work environment activities.
3 Several key activities closely aligned to a safety
4 conscious work environment were evaluated.
5 It's important to note here, and I think it was
6 discussed by others, that several of these activities are
7 unique to Millstone and represent enhanced measures needed
8 to address significant past program weaknesses. As recently
9 as last summer staff had concerns about the organizational
10 support for the safety conscious work environment and
11 activities.
12 Since that time Northeast has established a formal
13 safety conscious work environmental organization with
14 dedicated staff and with that staff being delineated to
15 specific safety conscious work environment responsibilities.
16 Staff considers that the organization and staffing
17 now provides appropriate support and coordination of the
18 many ongoing work environment activities.
19 The next three items on the slide there identified
20 in the slide are activities implemented at Millstone station
21 that are distinct from programs that may be found at other
22 nuclear power stations. Northeast Utilities program to
23 identify and take actions to address areas were a challenge
24 to the safety conscious work environment exists.
25 Their specially designed training programs for

1 managers, supervisors and all employees emphasizing safety
2 conscious work and their formation of the executive review
3 board to review proposed disciplinary actions with respect
4 to potential discrimination and chilling effect. All of
5 these are significant safety conscious work environment
6 initiatives and they have been discussed earlier, but they
7 are important -- important program initiatives that they
8 have done.
9 CHAIRMAN JACKSON: But the programs are as
10 programs do. And I noted you skipped over "response to
11 personnel action cases."
12 MR. McKEE: Oh, okay. I -- I'll get to that.
13 I'll discuss that in a minute. I must have -- I think that
14 got crossed in my notes here.
15 One additional item that's not listed on the slide
16 is the formation by Northeast Utilities of their employee
17 concern oversight panel which consists of Northeast
18 employees who have a role in monitoring the Millstone
19 workplace environment.
20 Staff reviewed and monitored implementation of
21 these programs and considers them constructive enhancements
22 to promote a safety conscious work environment. Each of
23 these programs was found to be operating effectively.
24 And getting to your point, Chairman Jackson, staff
25 reviewed and monitored licensee handling and response to

1 incidents involving potential harassment, intimidation and
2 chilling effect that occurred over the last year with an
3 emphasis on assessing the adequacy of the licensee's process
4 for dealing with issues as they arise.
5 Staff considers that Northeast's response to the
6 incidents demonstrated management willingness to admit to
7 mistakes or problems in their processes and willingness to
8 take prompt actions to address issues as they arise.
9 Further a number of the safety conscious work environment
10 program enhancements were implemented and refined based on
11 lessons learned from these incidents. So I think some of
12 these incidents, there are some and there are some that are
13 not mentioned here where proactive efforts may have avoided
14 those. I think they had shown a demonstration to
15 acknowledge them and deal with the incidents and actually
16 their program is growing to some extent from lessons learned
17 from this.
18 Northeast Utilities developed longer-range plans
19 for continued dedication of resources and maintaining the
20 employee concern program and the safety conscious work
21 environment infrastructuring in monitoring a performance
22 following the restart of a Millstone unit. Staff reviewed
23 these plans and considers that they provide an acceptable
24 framework for assuring the organizational and resource
25 support necessary to assure -- to assure that the safety

1 conscious work environment is maintained.

2 And if I could have the last slide that I'm going

3 to speak to here?

4 In summary and in conclusion I would like to say,

5 the actions required in the NRC October 24th, 1996 order to

6 be accomplished before the restart of any of the Millstone

7 units have been completed.

8 Staff concludes that Little Harbor Consultants has

9 effectively carried out its oversight functions and staff

10 has high confidence in results and conclusions of their

11 assessment of licensee performance and program status.

12 Staff concludes that the licensee's employee

13 concern program is significantly improved, well-established,

14 and operating effectively.

15 Staff also concludes the licensee's programs to

16 support a safety conscious work environment are improved and

17 effective, and appropriate plans are in place to see that

18 support of these programs is appropriately maintained.

19 Based on these findings special projects office

20 considers that Northeast Utilities safety conscious work

21 environment and employee concern program are acceptable to

22 stipulation restart in Millstone 3. This conclusion

23 recognizes that the Northeast employee concern program and

24 safety conscious work environment program will continue to

25 be subject to a period of continuing oversight by the third

1 party, our contractor, until the NRC is satisfied that the
2 program corrections are established and sustained.
3 CHAIRMAN JACKSON: Do the allegation numbers, but
4 more particularly the extraction of the technical content
5 and the disposition of concerns raised support your
6 assessment of program improvements?
7 MR. McKEE: The allegation numbers by themselves
8 -- the allegation --
9 CHAIRMAN JACKSON: I said, and especially how the
10 technical content was identified and dispositioned.
11 MR. McKEE: Because that's important. The
12 allegation numbers at Millstone had stayed high and
13 relatively the same, although they received -- I believe the
14 numbers are 71 allegations in calendar year '97 and however
15 which equates almost to a rate of six allegations per month.
16 I think in the last six months we've seen maybe a slight
17 decrease in that number.
18 I might note that of those allegations and of the
19 ones that have been closed and confirmed, about 20 to 25
20 percent of those have been -- are substantiated. Which is a
21 lower number than the national average in substantiation
22 which give -- I mean, you can take numbers and apply and
23 give meaning to it, but I think that has somewhat inferences
24 on some of the details of the allegations as far as the
25 technical aspect. As far as the technical issues, and there

1 are no issues -- our technical issues -- you know, we've
2 looked through the allegations and involved with any of the
3 allegations that we're aware of at this time, we think that
4 are of significance that it would have an adverse impact on
5 restart of Millstone Unit 3.
6 And you recognize that these are allegations all
7 for the site and there are some allegations that involve
8 some of the other specific units.
9 CHAIRMAN JACKSON: Well, it seems to me there are
10 three issues with any allegations or any employee concerns
11 raised. One is getting to the root of it, you know,
12 assessing the technical content of it. Having done that,
13 determining the safety significant and looking at how it's
14 dispositioned accordingly. And the third is whether the
15 individuals who may have raised the concerns have been dealt
16 with professionally and fairly. And are you assuring the
17 Commission that on each of those three points that you feel
18 that the employee concerns program and the safety conscious
19 work environment programs are working effectively to support
20 restart?
21 MR. McKEE: I think from the licensee's point the
22 concerns that they receive and observations of programs they
23 have come a long way and accomplish those three criteria
24 that you mention. As far as our allegations, that is our
25 goal and our purpose.

1 CHAIRMAN JACKSON: No, but I'm saying from -- you
2 said from the licensee's point of view, I'm asking you from
3 your point of view of the licensee's program, can you give
4 us assurance with respect to those three points?
5 MR. TRAVERS: Within the licensees, we're talking
6 about a little bit separate thing, but in combination,
7 directly in response to your question, yes. The program
8 that they have in place that we have evaluated and that
9 Little Harbor has been looking at to take concerns, evaluate
10 them, effectively interface with the people who raise them,
11 and appropriately correct, if any technical issues are
12 substantiated, the issue, we have found effective in the
13 course of our program.
14 CHAIRMAN JACKSON: Commissioner?
15 COMMISSIONER DIAZ: Yes. There has been an issue
16 coming all day long with regard to the employee concern
17 program and the safety conscious work environment, and the
18 issue is, are the results good now because there are that
19 many independent organizations?
20 Could you elaborate a little bit on how robust do
21 you think the present licensee program is, not what anybody
22 else is doing, but how robust is that program to be able to
23 --
24 CHAIRMAN JACKSON: Stand alone.
25 COMMISSIONER DIAZ: -- stand alone.

1 MR. TRAVERS: There's no question that this
2 licensee, because of the problems that it faced, has taken
3 extraordinary measures, not the least of which is our order
4 for them to establish an oversight -- independent oversight
5 organization which has been a factor, clearly, in their
6 ability to recognize and deal with the program problems and
7 the implementation problems that they face.
8 The conclusion that we're providing the Commission
9 today is one that, from our vantage, concludes that these
10 programs are working effectively, and they're working on
11 their own adequately to support restart, but mindful of the
12 history at Millstone, mindful of the fragility that I think
13 Little Harbor addressed in these programs and the potential
14 for them to backslide if these programs aren't very
15 carefully carried through. We think it's appropriate for
16 some extraordinary measures to continue. We think the
17 licensee's programs have provided a transition plan which is
18 directed to our more nominal state.
19 Certainly the program and the order that we've
20 laid on this utility envisions for some period of time that
21 extraordinary measures in the form of an independent
22 oversight committee would be appropriate. But the bottom
23 line to our assessment is that we have to conclude and we
24 have to come before the Commission and express to you our
25 view that the programs that they have in place today are

1 functioning adequately.

2 We have had some two years of time to review the
3 progress that they've made. It hasn't been as quick in some
4 instances as we would have liked. But today, we think we
5 have had adequate opportunity and a fairly long period of
6 opportunity to assess not only the programs being in place,
7 but the implementation of those programs, and we think
8 that's --

9 MR. CALLAN: I might say also, without taking
10 anything away from what Bill said, mindful also of the NRC's
11 experience over the last decade and a half elsewhere, other
12 sites. You know, Millstone is not the first site that the
13 NRC has grappled with organizational climate problems and
14 dysfunctional organizational cultures. We have a fair
15 amount of experience, particularly in the last ten years or
16 so. We know how long it takes, we know how difficult it is.
17 And believe it or not, I think we all share some of the
18 skepticism that we heard earlier from some of the earlier
19 speakers, maybe not to the same degree, but I think we also
20 worry about margin. We worry about backsliding. I mean,
21 those are legitimate concerns, and we should be skeptical
22 and we should think of compensatory measures, if you will,
23 if you think of Little Harbor as a compensatory measure to
24 add additional margin to ensure that we see the sustained
25 performance that was referred to earlier.

1 So I think a fair amount of healthy skepticism,
2 not only because of Millstone, Millstone's unique history,
3 but also because of our experience elsewhere.
4 CHAIRMAN JACKSON: Okay. Thank you.
5 COMMISSIONER DIAZ: Let me go back to it. Does
6 the program have roots inside? I mean, it's not something
7 that it's just sitting there? Does it have roots in the
8 organization?
9 CHAIRMAN JACKSON: Is it sod?
10 COMMISSIONER DIAZ: Is it sod?
11 MR. TRAVERS: Well, what we've seen and what we're
12 trying to convey is that what we've seen -- is it working?
13 We've seen evidence from Little Harbor and our own
14 evaluations that the work force embraces it and is using it.
15 We think we need to see follow-through. We think that's
16 going to be important. They have expressed their intent to
17 do that.
18 COMMISSIONER DIAZ: Sometimes these organizations
19 are very people-dependent.
20 MR. TRAVERS: Yes.
21 COMMISSIONER DIAZ: You have seen almost a
22 traumatic change, okay. How has that impacted the
23 effectiveness of the program? Did it continue because the
24 program had roots or it was dysfunctional for a while? You
25 actually saw that happening.

1 MR. TRAVERS: I guess, in my own estimation, the
2 program didn't change overnight. It was a gradual, painful
3 process at times. There were mistakes made, there were
4 lessons learned. We followed some of it. Little Harbor
5 followed it much more closely.
6 COMMISSIONER DIAZ: No, you're missing the
7 question.
8 MR. CALLAN: But Commissioner, usually these kinds
9 of programs at the early stages are very personality driven,
10 individually driven, and it takes a long time for that to be
11 institutionalized, and at what point are these -- are the
12 successes of these programs weaned from personalities and at
13 what point are they institutionalized, if you will, so that
14 they're independent of individual managers, and that's a
15 very difficult call.
16 COMMISSIONER DIAZ: I understand. You did see a
17 significant change in the organization --
18 MR. CALLAN: Right.
19 COMMISSIONER DIAZ: -- which was very recent, and
20 I was wondering whether there was any change that you
21 noticed in the performance at that time.
22 MR. McKEE: I think if there was a change in their
23 performance at that time is the way -- again, we look at
24 those incidents, we look at the process. I mean, it's part
25 of what -- and how they dealt with that issue and how they

1 reacted to that issue, I think that reaction would not have
2 been there, the same reaction, had something like this come
3 up a year ago. So I think there definitely was a change in
4 their performance and their attitude in dealing with that
5 item as it came up, to the positive.
6 CHAIRMAN JACKSON: Okay. Yes?
7 COMMISSIONER McGAFFIGAN: I just want to explore
8 the criteria for when Little Harbor might cease being this
9 -- I think of it more as a safeguard than a compensatory
10 measure because you're telling us that the program is
11 working, but there's this safeguard.
12 Mr. Beck earlier today said one metric might be
13 when he's not getting anything, there's no value added. Mr.
14 Markowicz suggested a metric that keeps them there at least
15 until the number of employee concerns and the NRC
16 allegations have been reduced to and maintained at the
17 industry averages for best-run power plants.
18 You have turned out six months, but the way I
19 heard that phrase was six months and we can make a decision,
20 not six months and they're gone. But how do you make that
21 decision at the six-month point as to whether the -- what is
22 your metric at that point? Are you going to --
23 MR. McKEE: Okay. I think a couple of things that
24 you mentioned are appropriate is -- one item that we're
25 interested in is, given the changing environment, once a

1 unit is approved for restart, watching the operations of
2 that program under the atmosphere where you have a unit
3 operating and also a unit where you still have a lot of
4 activity to correct. You want to see that that program,
5 which has gotten to the level it is, can sustain and deal
6 with issues at that time.
7 We'll be looking for a period, and we just assumed
8 -- six months was kind of a guess that that would be an
9 appropriate kind of watch period, and it would be some of
10 the elements that Little Harbor talked about, that there
11 weren't incidents that Little Harbor's observations or, you
12 know, recommendations on incidents would not be involved,
13 that if things come up, they would be properly dealt with,
14 and we just assumed that six months might be an appropriate
15 time for that.
16 MR. TRAVERS: But fundamentally, we're looking at
17 the same kinds of performance indicators that got us to this
18 point. I think the follow-through is essentially the same
19 model. In other words, what are our continued observations,
20 what kind of observations does Little Harbor have in the
21 same areas that we've been covering with the Commission from
22 time to time.
23 MR. McKEE: And I also might add, there's one
24 element in that that we have now, and I think what we have
25 been presented is a pretty good plan, is a transition plan

1 presented by the licensee and how they plan sometime in the
2 future, not necessarily six months, but a year or whatever
3 it is, and based on measures, how they plan to transform
4 from the organization in which they have enhanced elements
5 into a more regular structure organization, and I think
6 we'll need some period to see how that -- how they may do
7 their own measurements and assessments so that they can do
8 that transition, and that will be part of the decision.
9 CHAIRMAN JACKSON: Thank you.
10 MR. CALLAN: The next presentation will be from
11 Wayne Lanning on oversight and quality assurance.
12 MR. LANNING: Good afternoon.
13 CHAIRMAN JACKSON: Good afternoon.
14 MR. LANNING: First slide, please.
15 The Millstone Restart Assessment Panel has
16 addressed oversight as the combined activities of the
17 quality assurance organization as required by Appendix B,
18 reviews completed by the safety committees as required by
19 the technical specifications, and the self-assessment
20 function performed by the line management to improve
21 processes.
22 Oversight is a restart issue because of
23 ineffective program implementation and failure to identify
24 declining performance.
25 Historically oversight contributed to the weak

1 performance at Millstone. In the 1995-96 time frame
2 external and internal audits judged oversight ineffective.
3 Prior to '94 the NRC twice rated in our systematic
4 assessment of the licensee performance program the
5 functional area of safety assessment and quality
6 verification as category 3. Quality control effectiveness
7 was diminished by the systematic elimination of the quality
8 control hold points and the failure of line management to
9 accept audit and surveillance findings and carry out
10 corrective actions.
11 Audit exit interviews were not well attended by
12 line management. Self-assessments were typically not
13 initiated until a problem became apparent, and they were
14 narrowly focused and often lacked critical and thorough
15 evaluations. Identified performance improvements were
16 generally not carried out.
17 The four safety committees are the Plant
18 Operations Review Committee, the Site Operations Review
19 Committee, the Independent Safety Engineering Group, and the
20 Nuclear Safety Assessment Board. In the past these
21 committees were narrowly focused on compliance and generally
22 not effective in preventing recurring performance problems.
23 They did not manage their backlogs, and they tolerated weak
24 performance by management.
25 The licensee developed a broad corrective-action

1 program for the deficiencies identified through these
2 external and internal audits. The root cause for
3 ineffective oversight was identified as a lack of executive
4 leadership and management support.
5 The next slide lists staff activities regarding
6 the evaluations of the licensee's corrective actions to
7 recover oversight. These include the normal inspection
8 activities done by the resident inspectors and region-based
9 inspectors. The most comprehensive evaluation of oversight
10 was performed by an inspection team using the inspection
11 procedure 40500, the title of which is "Effectiveness of
12 Licensee Controls in Identifying, Resolving, and Preventing
13 Problems." This eight-person team completed its inspection
14 in late February. This report has not been issued. It's
15 currently under management review.
16 The Operational Safety Team inspection completed
17 its onsite activities just last Friday. The exit meeting
18 for that team is next week. This inspection evaluates the
19 readiness of plant hardware, staff, and management programs
20 to support safe restart and continued operation.
21 CHAIRMAN JACKSON: Did you look specifically at
22 oversight?
23 MR. LANNING: Yes, ma'am. They evaluated the
24 performance of the safety committees and self-assessment
25 activities, and the role of oversight in other functional

1 areas is maintenance, surveillance, and engineering, and so
2 forth.
3 The preliminary results were used, the staff
4 assessment of oversight. Additional insights were gained
5 through both NRC and contractor inspections of the
6 significant-items list. The restart assessment panel
7 identified this list of safety issues and processes required
8 for restart as part of manual chapter 350 activities that
9 Dr. Travers discussed previously.
10 Finally, the NRC held periodic management meetings
11 with the licensee to discuss the status of restart
12 activities. These meetings gave the staff insights into
13 licensee management support of oversight.
14 The next slide outlines some of the findings by
15 the staff's evaluation of oversight. The Nuclear Oversight
16 Organization adequately implements the license's quality
17 assurance program. Management support for the oversight
18 organization is evident. Key managers have been replaced to
19 provide leadership, and adequate, qualified staff has been
20 added to the organization to accomplish its mission.
21 The recovery plan to improve performance through
22 programmatic and organizational changes is complete.
23 CHAIRMAN JACKSON: Is almost complete.
24 MR. LANNING: Is complete. There is an error on
25 this slide.

1 CHAIRMAN JACKSON: Okay.

2 MR. LANNING: The recovery plan is complete and
3 the oversight organization continues to improve on some of
4 the areas that were in the initial plan.

5 Management has established standards and
6 expectations, organizational infrastructure, and teamwork.
7 Particularly noteworthy is that line management now embraces
8 oversight findings and evaluations.

9 Audits and evaluations are rigorous and completed
10 on schedule with substantial feedback on management
11 performance in the recovery process. They maintain
12 differing and sometimes unpopular positions during the
13 recovery process.

14 The nuclear oversight assessments, the readiness
15 to promote changes, and the design reviews of the
16 recirculation spray system were excellent. Quality control
17 now reviews all quality assurance work for hold points
18 before the work is released to the field to the mechanics.

19 Finally, the Nuclear Oversight Organization has
20 demonstrated that it can identify problems at a very low
21 threshold and assure that corrective actions for their
22 findings are completed in an acceptable manner.

23 The staff concludes that the Nuclear Oversight
24 Organization is improved, it's integrated into the Millstone
25 organization, and now effective.

1 The four safety committees add value to the
2 oversight function. Currently each committee meets its
3 regulatory requirements and achieves its goals and
4 management expectations.
5 The committees focus on operational safety. They
6 identify safety issues and track their findings and
7 recommendations to ensure that they're adequately carried
8 out by line management.
9 The next slide --
10 CHAIRMAN JACKSON: What does "meets technical
11 specifications" mean in this context?
12 MR. LANNING: It meets the requirements specified
13 in Unit 3 technical specifications.
14 CHAIRMAN JACKSON: You mean to have these
15 committees.
16 MR. LANNING: To have these committees, proper
17 staffing --
18 CHAIRMAN JACKSON: I just wanted to understand the
19 context.
20 MR. LANNING: Meeting frequency --
21 CHAIRMAN JACKSON: Fine.
22 MR. LANNING: In that respect.
23 This slide summarizes the Staff's evaluation of
24 the licensee's self-assessment activities.
25 The licensee has implemented a formal self-

1 assessment program that now defines the expectations,
2 accountability, and ownership.
3 For example, every department must perform self-
4 assessments and this includes the Nuclear Oversight
5 Organization, which also has responsibility to evaluate the
6 effectiveness of the self-assessment program, and you will
7 recall from this morning's discussions that the Nuclear
8 Safety Assessment Board provides oversight of the Nuclear
9 Safety Organization.
10 The Staff has reviewed several self-assessments
11 and found them to be critical and the technical adequacy
12 improving. The self-assessments identified problems,
13 identified the issues at a low threshold and generally did
14 so before they were identified by outside organizations.
15 Line management showed ownership of the findings
16 and ensured that corrective actions were addressed and
17 completed in a timely and acceptable manner to improve the
18 organization and processes.
19 The next slide shows the Staff's conclusion
20 regarding oversight. The Restart Assessment Panel has
21 integrated the inspection findings and concludes that
22 oversight is adequate to support restart and continue safe
23 operation.
24 CHAIRMAN JACKSON: Mr. Lanning -- I'm sorry, go
25 ahead. Please, finish.

1 MR. LANNING: Okay. This conclusion is based on
2 demonstrated effective performance by the Nuclear Oversight
3 Organization and adequate performance by the safety
4 committees and an effective self-assessment program.
5 CHAIRMAN JACKSON: I want to look at this adequate
6 performance by the safety committees for a second.
7 Can you comment on the safety committee
8 performance as it is related to the recirc spray system
9 modifications?
10 MR. LANNING: The Plant Operations Review
11 Committee reviewed the modification before it was done.
12 They did have questions, but quite frankly, the technical
13 aspects of that mod is really not within the capability of
14 the PORC organization so I think it's fair to say that it
15 was not an expectation for them to have identified the
16 complex engineering weaknesses that were probably included
17 in that design mod.
18 CHAIRMAN JACKSON: Should it have been? I mean is
19 that -- I mean how does that comport with what you would
20 expect other --
21 MR. LANNING: I wouldn't expect the PORC to be in
22 a position to understand that level of detail engineering
23 analysis.
24 MR. IMBRO: I have nothing to add. I agree with
25 Wayne.

1 CHAIRMAN JACKSON: I guess I want to just -- one
2 last thing.
3 I asked a question this morning having to do with
4 engineering strength and to what extent this RSS issue
5 relates to what strength and depth of insight there is in
6 engineering.
7 Can you make a comment?
8 MR. IMBRO: Well, maybe I can answer --
9 CHAIRMAN JACKSON: Please.
10 MR. IMBRO: -- try to answer that.
11 Engineering was historically not a very strong
12 organization. I think we have seen in our two years at
13 Millstone that it is substantially improved.
14 I talked to a lot of the folks in the Engineering
15 organization and also in the Oversight and other
16 organizations, but specifically to the Engineering
17 organization. I think they acted in a reasonable manner. I
18 think they had analysis that supported the design, or at
19 least they thought they did, and I think they had several
20 consultants agree that the design seemed reasonable, so, you
21 know, the fact that there was a failure I think is not
22 necessarily a reflection on the Engineering organization,
23 but I think they proceeded with reasonable information to go
24 forward, so I would not consider the failure of the RSS
25 bellows necessarily something that I would attribute to a

1 weakness in Engineering.

2 CHAIRMAN JACKSON: Well, you know, we talk about
3 the PORC, we talk about Engineering, and we talk about the
4 Oversight organization.

5 Where is the catch basin for a problem like this?

6 MR. IMBRO: Well, again I think it is a complex
7 issue and to me I think that all organizations were involved
8 that should have been. Oversight certainly identified the
9 issue.

10 I think the testing people that got involved that
11 also had questions that then in a sense prompted another,
12 the Nuclear Materials Engineering Group, to go back to the
13 vendor to get calculations, so I guess what I am trying to
14 say is I think there is -- the process worked because all
15 the organizations that were, that should have been involved
16 ultimately got involved.1

17 Could they have gotten involved sooner? Possibly.
18 But I think that the fact that the modification was not
19 totally approved, was being tested, you know, indicated that
20 many organizations had some concerns.

21 Is there one catch? I think in this case maybe
22 the fact that the Oversight identified the problem
23 heightened the concerns of the other organizations possibly
24 was the, quote, safety net, if you will, but I think that
25 the appropriate organizations got involved and they acted in

1 a professional manner and they really worked to get the
2 information they needed.
3 CHAIRMAN JACKSON: Is this a significant system?
4 MR. IMBRO: Certainly. Absolutely.
5 CHAIRMAN JACKSON: Right, and so I guess again the
6 question becomes you are convinced, you know, that with
7 these various legs to the stool that there is sufficient
8 strength that for system of this safety significance with
9 problems of this complexity that there is robustness in the
10 system to adequately address it?
11 MR. IMBRO: Well, the answer in my mind would be
12 yes.
13 MR. TRAVERS: I think one question you might ask
14 as a result of this event is, as was presented earlier,
15 there were some nearly 200 physical modifications made to
16 this plant while it's been shut down, and a reasonable
17 question in the face of what is obviously not a nominal
18 situation -- it would have been better if the design of what
19 was done initially in the RSS resulted in the right answer
20 the first time. It didn't.
21 A critical question about that interaction is how
22 well did the organizations work, and I think you have heard
23 from us that we think even though they came out with the
24 wrong answer the first time that the organizations that
25 should have come into play did.

1 Unfortunately, it didn't come out correctly before
2 the testing. However, the other modifications that were
3 made, some 186, nearly 200 modifications, the answers that I
4 got when I asked the question of my inspectors in both them
5 and the licensee is that there were no similar incidents of
6 post-modification failures based on poor design that
7 resulted from any of those modifications, so I think it
8 obviously didn't result in an optimal conclusion in this
9 instance.
10 We have looked at it. We think that it was not an
11 obvious technical issue that should have been obvious to
12 all -- you know, a very simple issue. Rather, it was a
13 complex issue on cavitation and aspects of how you account
14 for that cavitation, and unfortunately the wrong answer came
15 out.
16 The good news, if there is any here, is that the
17 testing that was done ultimately found the issue and
18 resulted in a fix that we have reviewed subsequently in some
19 detail that we are asking Sargent & Lundy to look at in
20 additional detail.
21 We expect it will be determined to be an
22 acceptable fix for what is a very important system --
23 CHAIRMAN JACKSON: Well, look, look, look -- the
24 Commission is dependent upon you --
25 MR. TRAVERS: Yes.

1 CHAIRMAN JACKSON: -- in this instance, okay? And
2 the question really is, you know, we need to have some
3 baseline here and some understanding in two regards.
4 One has to do with what I just asked, whether or
5 not you feel there is sufficient robustness in the set-up
6 with the various organizations and entities to deal
7 adequately with problems in system of this safety
8 significance if there are similar issues.
9 But a kind of baseline one is what is reasonable
10 to expect relative to this kind of issue with some other
11 licensee that we think does an adequate job, and you have to
12 tell us that. You can't dance around the issue. You have
13 got to tell us that, and that is what I am asking you.
14 MR. CALLAN: Chairman, let me just provide -- I
15 agree with the perspective that the process worked in this
16 instance, but this is not good engineering. I mean we can't
17 sit here and tell you that that is an example of good
18 engineering. It is not.
19 And the thing about this particular modification
20 or this particular problem -- it was self-revealing. It
21 could be picked up with post-modification testing.
22 I mean as you know from the types of issues that
23 we deal with daily across the industry, we are worried more
24 about the types of engineering --
25 CHAIRMAN JACKSON: Not really.

1 MR. CALLAN: -- flaws that are not self-revealing
2 that you -- that are only manifested during design basis
3 events.
4 CHAIRMAN JACKSON: Right.
5 MR. CALLAN: But you have to rely on analytical
6 techniques --
7 CHAIRMAN JACKSON: That's right.
8 MR. CALLAN: -- to provide the protection.
9 In this instance, testing turned up the problem.
10 CHAIRMAN JACKSON: That's right.
11 MR. CALLAN: So it is an issue, clearly. It is
12 not a success story in that sense, but the process did work.
13 CHAIRMAN JACKSON: So what I am saying is as long
14 as we focus on the particular system and the very fact that
15 the testing can reveal what needed to be revealed, we're
16 okay, but if we have a situation where that is not available
17 or it is not self-revealing in that sense, then that is why
18 I am asking you the question about the robustness of what is
19 in place.
20 MR. TRAVERS: And our assessment of much more of
21 what has occurred at Millstone in terms of engineering that
22 has been completed including other modifications is what I
23 was trying to allude to is that the engineering is adequate,
24 is robust sufficient to justify the conclusions we are
25 bringing forth today.

1 CHAIRMAN JACKSON: Commissioner Dicus?

2 COMMISSIONER DICUS: With regard to the

3 recommendations that were made regarding the ECP and the

4 SCWE there was qualification that everything -- a

5 qualification that the third-party oversight should continue

6 for some period of time. Do you have any qualifications on

7 your recommendations?

8 MR. TRAVERS: On our recommendations?

9 COMMISSIONER DICUS: On oversight and quality

10 assurance.

11 MR. TRAVERS: Oh, I'm sorry.

12 COMMISSIONER DICUS: Yes.

13 MR. COLLINS: I wasn't following your question. I

14 thought you were asking an ECP question. Ask me again.

15 COMMISSIONER DICUS: Fair enough.

16 There was a qualification with the ECP, et cetera,

17 that third-party oversight should follow for a while as a

18 qualification to their recommendations, or at least that's

19 how I perceived it. Do you have any qualifications to your

20 recommendations?

21 MR. COLLINS: No. No qualifications.

22 COMMISSIONER DIAZ: Going back to Mr. Lanning,

23 something that he said that I put back here. I mean, it's

24 piggy-backing on the Chairman's question, and you actually

25 said that there was a weakness in the organization, you

1 know, in engineering at the time that it was done, and
2 that's, you know, that's about the way it was expressed.
3 The thing that I would like to go back to is do
4 they know or they appear to know when there is a weakness
5 that they need additional support? And are there, you know,
6 does their processes they set to seek the additional support
7 that is needed when it is needed?
8 MR. LANNING: What you're talking about is a
9 rigorous design control process. That's what we're talking
10 about here. One of the weaknesses in this design was the
11 independent verification of the calculations. For example,
12 simply assuring that the input, the assumptions are correct.
13 That didn't occur in this case. It's a lesson learned, and
14 I think the program -- design change program will benefit
15 from that.
16 COMMISSIONER DIAZ: Okay. I'm willing to accept
17 that that happens. It is not the first time or maybe the
18 last time. The question is are the processes in the system
19 capable of realizing when there is that weakness to seek
20 additional help. That's the distinction. Go beyond, you
21 know --
22 CHAIRMAN JACKSON: Do they have a rigorous design
23 control process, to use your terminology?
24 MR. LANNING: I think that's the answer. They
25 have just revised the design control manual, and they have

1 established a rigorous design control process, and the fact
2 that they've gone and looked at the almost 200 previous
3 modifications including the calculations provides some
4 assurance that that process is working.
5 COMMISSIONER DIAZ: All right. Thank you.
6 MR. COLLINS: Commissioner Dicus, if I can just --
7 excuse me. If I can just be sure I'm clear on your question
8 and the answer. We have talked here about the Corrective
9 Action Program and the 4500 process. You have heard, and I
10 think we would agree from previous presenters that that
11 process needs to be tracked to the extent that we have
12 confidence that it is in fact a robust program, particularly
13 in the backlog area. And I believe in a later presentation
14 you will hear that we do believe that there is additional
15 oversight.
16 In fact, it's been suggested that there be
17 unannounced inspections in those areas by one of the
18 previous presenters. We would not disagree with that. We
19 are of the view also that there needs to be an enhanced
20 followup in the corrective action area in light of the
21 disposition of the backlog.
22 COMMISSIONER DICUS: Fair enough.
23 COMMISSIONER McGAFFIGAN: I just want to make one
24 point and ask one question. The heart of what I'm hearing
25 you say about this RSS issue is that the notion that -- I

1 think Mr. Del Core talked about freshman engineering
2 knowledge -- that there was beyond freshman engineers at a
3 typical college to have spotted this problem and said it's
4 obvious and fix it. You agree with the licensee that this
5 was a complex issue that needed people to look at from
6 several directions, and it's a disservice to characterize it
7 as freshman engineering?
8 MR. CALLAN: Well, my experience, and I don't --
9 correct me if I'm wrong, but I dealt in my experience in my
10 NRC role overseeing a lot of utilities grappling with
11 vibration problems and positioning of orifices and
12 turning -- what they call tuning a system, positioning the
13 orifice, some pretty strong engineering organizations, and
14 some say it's more of an art than a science. I don't know
15 that. But it -- I would not concede the point that it's not
16 necessarily rocket science. I don't know. It's -- I don't
17 think it's -- it's not necessarily easy to do.
18 COMMISSIONER McGAFFIGAN: The question is we heard
19 Captain Mendenhall talk earlier, and he was a part of this
20 oversight organization, and his basic statement was that
21 when he came up with problems in his audit role they were
22 either trivialized, studied to death, or looked at narrowly
23 as symptoms. And the question I have for you is that that
24 obviously isn't your general judgment or you wouldn't be
25 making the conclusion you have at the moment. How do you

1 fit his testimony in with your general judgment?

2 MR. LANNING: Well, I respect his comments and,

3 you know, we've talked to him in detail about his concerns.

4 Quite candidly, oversight organization in its performance is

5 not perfect. Our Corrective Action Inspection Team found

6 imperfections. They found things that needed to be

7 corrected. But that didn't indicate that the oversight

8 function itself is programmatically broken. So there are

9 weaknesses. There's not a perfect organization. They're

10 continuing to identify deficiencies and identify

11 improvements. So I think it's part of the continuing

12 improvement process.

13 COMMISSIONER McGAFFIGAN: But if we were to survey

14 the employees in the oversight department, what percentage

15 would agree with Captain Mendenhall that their concerns are

16 trivialized. We had one testify earlier, at least

17 somebody -- but is this -- this is not the typical

18 situation, I assume.

19 MR. LANNING: I'd be speculating to try to guess

20 how many oversight employees would say that. But through

21 our inspections, and we've looked at oversight in a number

22 of avenues, and corrective actions even more broadly, we're

23 finding that the process is functioning adequately. There

24 are warts. There are imperfections. There are still

25 findings on the part of NRC. That's what we would expect.

1 But overall the program is functioning.

2 CHAIRMAN JACKSON: When you say, Mr. Lanning, the

3 program is functioning, do you mean people go through the

4 steps they should or that the outcomes are what they should

5 be?

6 MR. LANNING: I mean that the oversight

7 organization is involved, it's respected, it's performing

8 its function according to our requirements, they're going

9 beyond that and asserting themselves into the process.

10 They're adding value to the quality of the work being done.

11 CHAIRMAN JACKSON: Okay.

12 Mr. Imbro, you were going to make a comment

13 earlier?

14 MR. IMBRO: I just was going to add that we had

15 also inspected the design control manual, the new design

16 control manual as a part of ICVP in that year, year 3

17 inspection, and I thought we found that the manual itself

18 was pretty comprehensive. Of course it has to be

19 implemented properly. But the manual itself we thought was

20 pretty solid.

21 CHAIRMAN JACKSON: Okay. Again, all I'm going to

22 leave is a question, and it's an implicit -- I mean a

23 comment that it's an implicit question. And that is that

24 again one can look at programs, processes, does everybody

25 take the steps he or she should take. But in the end what

1 matters is the outcome, and I guess what I'm trying to
2 understand from you is in terms of outcome relative to
3 ensuring that safety-significant systems can be -- that if a
4 design change is made that in the end the right thing is
5 done, or if there's a problem, the problem is resolved. You
6 have comfort in that regard. I'm not interested in whether
7 a program is in place.
8 MR. TRAVERS: Right.
9 CHAIRMAN JACKSON: I'm not interested in whether
10 people go through the steps of the process. I'm interested
11 in the outcome. And so what are you going to tell me?
12 MR. TRAVERS: And that is in fact exactly the
13 right focus. It's the focus that we've taken in our
14 inspection activities, and we're here to tell you that in
15 the areas that we're addressing today that the outcomes,
16 whether it be in oversight and the effectiveness of
17 oversight, for example, in stopping work, that -- or mode
18 changes to make sure that work is done correctly, in the
19 area of the effective functioning currently of ECP and SEWE
20 that our conclusions are based in fact on our best
21 assessment of that factor as a principal one, and we do look
22 at programs, we do look at how they're structured, we do
23 look at whether or not they're programs that can be used
24 effectively, but in addition to that, and perhaps even most
25 importantly, as you suggested, Chairman, our look-see is

1 focused on those very outcomes that you've made reference
2 to.
3 And when we talk to you in the next Commission
4 meeting it will be even more apparent.
5 CHAIRMAN JACKSON: Okay. That's very important
6 because you know my mantra.
7 MR. CALLAN: Right.
8 CHAIRMAN JACKSON: Programs are as programs do;
9 right?
10 MR. CALLAN: I've heard that before.
11 CHAIRMAN JACKSON: Right. Okay.
12 MR. TRAVERS: The last issue that we wanted to
13 address with the Commission today has to do with backlog
14 management. The size and composition of the licensee's
15 post-restart backlog are issues that were addressed by the
16 Chairman at out last Commission meeting and in a subsequent
17 staff requirements memo by the Commission. Although
18 backlogs are expected at restart and historically at
19 Millstone the licensee has not been effective in assuring
20 that work is effectively completed and completed in a timely
21 way. Given this historical issue the staff has been closely
22 monitoring the licensee's effort to improve it's programs
23 relative to corrective actions, work planning and control.
24 In fact, the staff has identified improvements in these
25 areas as fundamental elements of our restart assessment

1 plan. We're going to address corrective actions, per se, in
2 its many elements in detail at our next Commission meeting
3 and also work planning control.
4 But with regard to the backlog specifically, we
5 have identified the following issues as key to an assessment
6 of our view or restart readiness. And those issues are the
7 following, have the work items that need to be accomplished,
8 have they been classified appropriately as either required
9 before restart or appropriately deferrable. And the second
10 question is, for those items that are appropriate to defer,
11 does the licensee have a plan to complete that work in a
12 reasonably timely fashion. So that's the way I'm going to
13 approach this presentation.
14 Next slide, please?
15 To address the first issue we issued a letter -- a
16 demand for information under 5054(f) about a year ago that
17 required the licensee to submit a number of things. They
18 required them to submit a detailed list of all of the items
19 that they identified as required prior to restart. It
20 required the licensee to submit a detailed listing of items
21 that they viewed as deferrable until after restart. It
22 required them to submit their process and their rationale
23 for making those judgments. And, lastly, it required them
24 to provide us with an overall assessment of why they believe
25 they meet their license basis and the regulations and the

1 FSAR.

2 The licensee has responded to each one of these
3 items and we've been providing -- and they have been in fact
4 providing us periodic updates of these lists of deferrable
5 or required before restart work items.

6 Next slide, please?

7 In order to evaluate both the process and the
8 criteria being used to categorize deferrable issues and the
9 licensee's implementation of the process, the NRC staff has
10 carried out four inspectors, actually with the recent
11 completion of the OSTI, you can count it as five. We have
12 not issued report, however. We've issued two of those four
13 inspection reports. The first inspection assessed the
14 licensee's process and concluded that it appropriately
15 conservative. To give you a sense of that the process that
16 they are using requires that for items to be deferred they
17 can't have anything to do with corrective actions to conform
18 with licensing or design basis. They must not be associated
19 with any support to at tech spec change and they can't be
20 issues that are important to a determination of operability
21 for a maintenance group one or two system. So anything
22 associated with those kinds of issues are put in the pre-
23 restart bin.

24 CHAIRMAN JACKSON: Can you comment on the status
25 of the deferred item on the RHR system that we discussed at

1 the February meeting?

2 MR. TRAVERS: Yes, that issue had just been

3 identified and it came up and it was fairly prominent and

4 the discussion that we had with the Commission the last

5 time, the NRC in -- I guess it was our April inspection

6 identified this as an issue that we thought might need to be

7 put on -- rather than deferrable list, the restart list.

8 And the licensee has subsequently agreed with that and has

9 actually made the fix to mini-flow line in the RHR system

10 which results in elimination, we believe, and agree with, a

11 potential for a cycling of that valve which could result in

12 a misfunctioning of that very important system.

13 Whether or not that misfunction would have

14 occurred given the situation, it is not determinant, but

15 nevertheless they've taken the steps to provide additional

16 assurance that it won't. And so that's a corrective action

17 that's actually been implemented.

18 The inspections that we've completed have included

19 a review of all of the deferred items, the descriptions for

20 each one of those many items. We've looked in more detail

21 based on a smart sample at about 1,000 items on that list,

22 and we've asked questions and we followed up on assessing

23 whether or not the implementation of their process was

24 effective in identifying items that really should be

25 completed prior to restart. And the results of those

1 inspections indicated that in about ten instances items of
2 the 1,000 or so that we looked at in some detail were
3 required to effect the change.
4 Now, the conclusion we reached relative to the
5 significance of those things not being on the restart items
6 list is that none of them really posed a very significant
7 issue if they had remained, in fact, on the deferred list.
8 Nevertheless, in about 1 percent of the instances, you know,
9 we took issue with their judgement on how they classified
10 those items.
11 Next slide, please?
12 In order to determine the extent of the licensee's
13 planning and programs to complete deferrable work in a
14 timely fashion after restart, we asked the licensee to
15 commit -- to submit a backlog management plan and they've
16 done that and you've heard some discussion of it here today.
17 An objective of our review was to determine if the agency
18 should establish some level of additional regulatory
19 requirement, an order or a CAL, for example, to provide some
20 added assurance that the backlog would in fact, given the
21 history of Millstone be addressed in a reasonable timeframe.
22 The plan which they have submitted provides
23 certain commitments. It is essentially, though, a
24 methodology and a process framework, along with a statement
25 of targets and goals for addressing deferrable items for

1 restart.

2 This slide characterizes the fact that their plan
3 includes a characterization and breakdown of deferred works,
4 a listing of functional requirements which they've
5 developed. Again, these targets and goals, and as has been
6 mentioned earlier, certain commitments for reporting to NRC
7 on performance indicators and updates on progress that they
8 make or don't make in addressing these issues.

9 Although firm commitments are not provided in
10 their plan, they have targets, they have goals, they've
11 indicated intent to disposition all of this work prior to
12 restarting for the next refueling outage which would be
13 about 10 or 11 months from now. We believe that a number of
14 things add up to provide confidence that this is a
15 reasonable plan.

16 Number one, the fact that they have relatively
17 conservative threshold for identifying the work that needs
18 to be done before restart, the fact that we've reviewed that
19 and have found that in most instances they've appropriately
20 applied it, also the fact that they have in fact already
21 completed a relatively large fraction of deferrable work, I
22 think you heard something like 6,000 of 10,000 deferrable
23 items. Oh, no, I'm sorry, 60 percent, I forget what the
24 number is. But about 60 percent of deferrable work that has
25 already been completed in the course of this current outage.

1 Combine that with the commitments that they've
2 made to provide us on a quarterly basis with detailed
3 program on their disposition of these items leads us to
4 conclude that this is a reasonable plan, it can -- it
5 doesn't have to, but it can be implemented effectively.
6 It might not implemented effectively. It provides
7 a series of targets and goals and combined with the
8 commitments to provide us with progress reports, we think it
9 provides a reasonable approach given the significance or
10 lack of significance of these kinds of issues.
11 CHAIRMAN JACKSON: Does it require a CAL?
12 MR. TRAVERS: We believe, and I will ask for the
13 next slide, that based on the items that I just mentioned,
14 we don't think a CAL at least at this time is something that
15 we would recommend to the Commission.
16 We would, however, as Sam indicated, we would
17 however recommend that in the context of assuring not only
18 that the backlog is dispositioned effectively but that the
19 broader question of Corrective Action Program implementation
20 is successfully implemented after restart that the Staff
21 plan to carry out another 40-500 team inspection in this
22 area, and that is what we are planning to do within about a
23 year to assure that the follow-through in these areas, both
24 in terms of the backlog management and the Corrective Action
25 Program, be checked.

1 This is a bit of a checkpoint, if you will, for
2 establishing whether or not the follow-through has been
3 adequate.
4 Really, this recognizes what we started with and
5 that is a historical problem associated with a program that
6 has not in the past been very effective at completing work,
7 getting backlogs down appropriately and so forth.
8 COMMISSIONER DIAZ: Yes, Dr. Travers. Getting at
9 the conclusion in here, maybe you can clarify for me, based
10 on our criteria of adequate protection of health and safety,
11 how is the determination made whether 1000 items are
12 adequate or 10 or 2000. What do we use as the criteria to
13 establish that, yes, it is okay or is not okay to defer
14 certain items?
15 MR. TRAVERS: I think in response to your question
16 that a quantitative answer is something that is probably
17 elusive.
18 More importantly would be an assessment of the
19 process -- what kinds of items, for example, is the licensee
20 deferring? In the aggregate, can they be viewed as
21 significant enough to warrant some level of concern, and I
22 think what you are hearing from us today is that even with
23 the 4000-5000 items that they have identified as deferable,
24 that we believe that the threshold they have used is a
25 conservative one which really results in most -- any safety

1 significant work being done before restart.

2 For example, as I mentioned, all of the issues

3 that need to be done to address conformance with the

4 licensing or design basis are pre-restart items. That

5 captures a lot of material that might potentially be

6 deferable, in some sense, on purely safety --

7 COMMISSIONER DIAZ: So quality implies safety.

8 MR. TRAVERS: I think so.

9 COMMISSIONER DIAZ: Thank you.

10 MR. TRAVERS: So our conclusion, which I will just

11 roll off, is that we think that they have made reasonable

12 determinations of what is on the restart list versus the

13 backlog list.

14 We think that their plan, while it doesn't provide

15 firm commitments, does provide a process that can work and

16 combine that with the commitments they have made to keep us

17 informed of their progress and combined that with our

18 planned follow-through inspection to assess both corrective

19 actions and the backlog renders this issue sufficient to

20 come to the Commission and argue that it is supportable for

21 a restart decision.

22 CHAIRMAN JACKSON: Thank you. Commissioner Dicus?

23 Commissioner Diaz? Commissioner McGaffigan? Well --

24 MR. CALLAN: Commissioner, we have two more

25 slides -- if you would just bear with us.

1 CHAIRMAN JACKSON: Okay.

2 MR. CALLAN: And I will be very brief but I think
3 this is somewhat of a segue to the next meeting that we
4 have.

5 Just to quickly lay out what is before us, before
6 we meet again on Millstone, first of all, first and foremost
7 the independent corrective action verification program will
8 need to be substantially completed for Unit 3 -- clearly.

9 We have not yet received the final Sargent & Lundy
10 report and, Gene, we are due to get the interim report next
11 week? Is that right?

12 MR. IMBRO: Yes, on May 5th.

13 MR. CALLAN: But additionally there is about 80,
14 plus or minus about 80 ICAVP issues that have yet to be
15 resolved by either Sargent & Lundy or the licensee, so those
16 have to be resolved and once that is done the Staff, the NRC
17 Staff can then review the manner in which the licensee's
18 Corrective Action Program dealt with those issues.

19 While we do that, we are also completing the next
20 bullet there, which is our assessment of the licensee's
21 Corrective Action Program.

22 And as was mentioned earlier we have yet to
23 complete our assessment of the results of the Operational
24 Safety Team Inspection, the OSTI. In fact, the exit is also
25 May 5, isn't it, next Tuesday, and there'll be an exit at

1 the site open for public observation.

2 What time is that going to be?

3 MR. LANNING: One o'clock. One o'clock.

4 MR. CALLAN: One o'clock at the site. So at that
5 time the staff will formally present its findings, its OSTI
6 findings. The report will follow obviously. There will be
7 a lot -- even after the exit we'll still be assessing what
8 it all means and root causes and that sort of thing. So
9 we'll be reporting out on that at the next meeting.

10 If you add all -- and then finally I guess, the
11 paperwork. We owe you all another report similar to the one
12 that we gave you to support this meeting summarizing our
13 conclusions and recommendations relative to the outstanding
14 issues. All of that, if you add it up, looks like a minimum
15 three to four weeks to do all that, and that's if the
16 licensee's progress continues on the track it's on.

17 CHAIRMAN JACKSON: Okay. Now you're done.

18 Thank you very much, and I would like to thank
19 Northeast Utilities, Little Harbor Consultants, the public
20 officials, and members of interest groups and the public,
21 and the NRC staff for briefing the Commission on the
22 progress in assessing the readiness for restart of Millstone
23 Unit 3.

24 And once again I will state on behalf of the
25 Commission that we recognize how difficult it is to condense

1 the subject -- the substance of either the reviews performed
2 by each of you or in the case of the public your comments
3 and evaluations into briefings like this. And that is the
4 primary reason that the NRC in November 1996 created the
5 Special Projects Office, to provide for direct oversight of
6 all licensing and inspection activities and to tailor the
7 NRC's staff guidelines for restart approval to address
8 specifically deficiencies at the Millstone units.
9 Now I want to reassure the public especially that
10 the Commission as a consequence of making the Millstone
11 units Category 3 plants in June of 1996 took on the
12 responsibility of a more careful monitoring of these plants.
13 To that end we have relied on the Special Projects Office.
14 We have had regular meetings, and we do receive and read the
15 personal correspondence from the public to our offices, and
16 we consider it all part of the Millstone record for our
17 deliberations and evaluations for restart readiness. And we
18 do appreciate your input.
19 And as I state at each meeting, the Commission
20 does not presuppose any of the plants will restart by a
21 specific date, but it does depend upon the various
22 evaluations being done and receipt of the documentation of
23 that from the staff, as well as from the licensee and other
24 parties involved.
25 The Commission is primarily concerned with

1 ensuring that if and when the Millstone Station restarts, it
2 is a safe station with an effective Corrective Action
3 Program and with an environment supportive of the public,
4 but especially the employees raising and that there is
5 adequate and appropriate resolution of safety concerns.
6 Now with regard to the schedule for the next
7 Commission meeting on Millstone, I can only reiterate as I
8 stated in my opening comments that the Commission will
9 schedule the meeting as promptly as possible following
10 receipt and assessment of the progress reports from the NRC
11 staff.
12 And so unless my colleagues have any closing
13 comments, I want to thank you again, and since you talked
14 about till we meet again, at the risk of dating myself, I
15 say, "Happy trails to you."
16 [Whereupon, at 4:33 p.m., the briefing was
17 concluded.]
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CERTIFICATE

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

TITLE OF MEETING: BRIEFING ON SELECTED ISSUES RELATED TO PROPOSED RESTART OF MILLSTONE UNIT 3

PLACE OF MEETING: Rockville, Maryland

DATE OF MEETING: Friday, May 1, 1998

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

Transcriber: Rose Gralton

Reporter: Mark Mahoney

# NORTHEAST

# UTILITIES

# Progress at Millstone Station

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



**NRC Headquarters**
**Rockville, Maryland**
**May 1, 1998**

*Mike Morris*

**Chairman, President & CEO**
**Northeast Utilities**

*Bruce Kenyon*

*President & CEO*
*Northeast Nuclear Energy Company*

# *Agenda*

- *Restart Readiness*
- *Safety Conscious Work Environment*
- *Deferred Items Management*
- *Management Oversight*
- *Nuclear Oversight*
- *Closing Remarks*

# *Our Effective Ongoing Performance Requires:*

- *High Standards*
  - *established by Leadership and embraced by the entire workforce*
- *Strong Self Assessment*
  - *characterized by vigilant management controls*
- *Effective Oversight Mechanisms*
  - *Nuclear Oversight Organization*
  - *Nuclear Safety Assessment Board (NSAB)*
  - *Board of Trustees Nuclear Committee and Nuclear Committee Advisory Team (NCAT)*

# *New Leadership has Established High Standards at Millstone Based on:*

- *Diverse expertise*
- *Considerable industry experience*
- *Track record of success*
- *Emphasis on communications*

# *Millstone's Recovery is Built on our Leadership Values*

- *Do What Is Right*
- *Respect and Care for the Individual*
- *Teamwork*
- *Customer Focus*

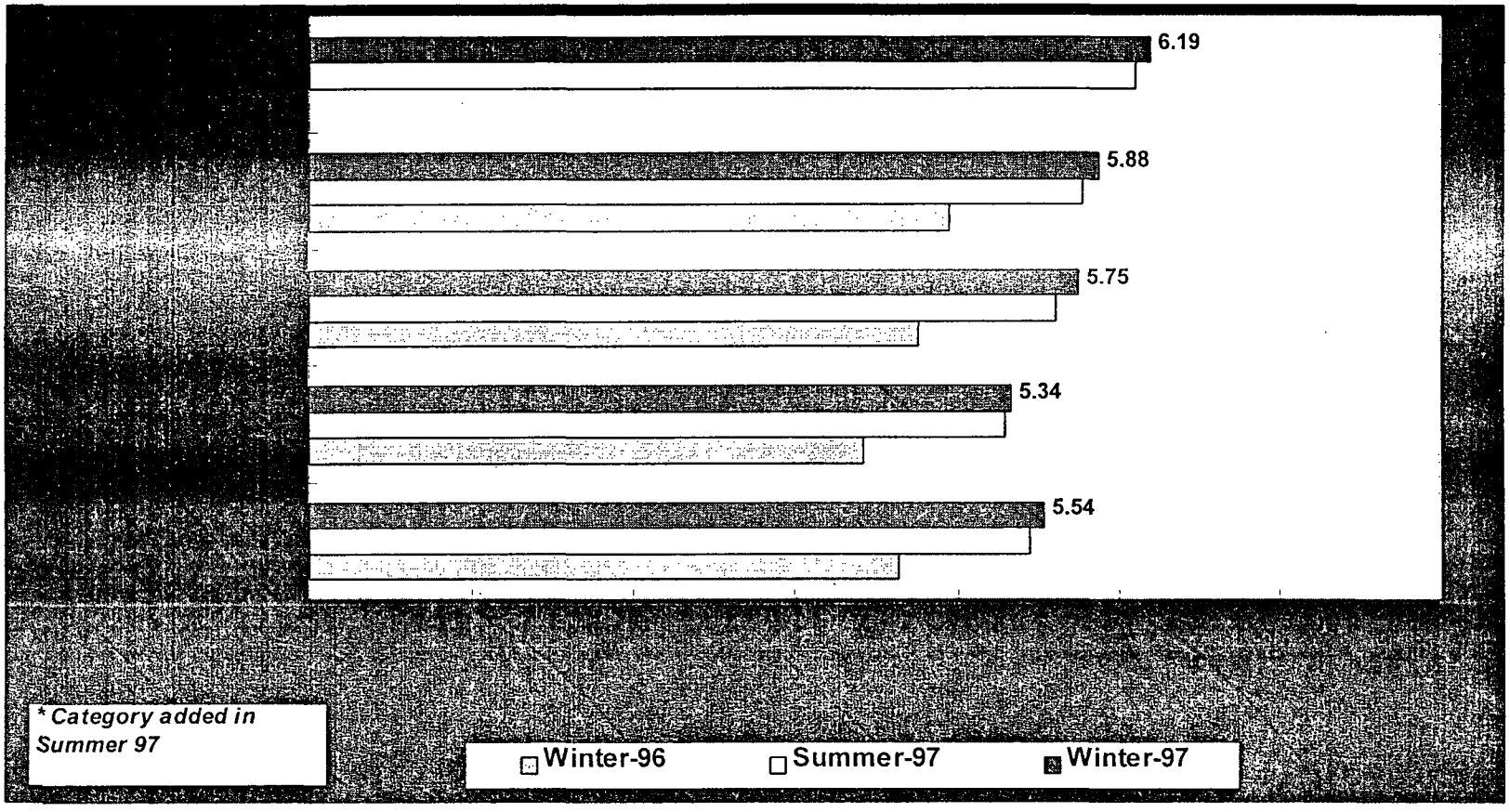
# *Millstone Team has Effectively Addressed Key Site Issues for Unit 3 Restart*

- *Leadership*
- *Regulatory Compliance*
- *Oversight*
- *NSAB*
- *Emergency Planning*
- *Radiation Protection*
- *Procedure Quality & Adherence*
- *Self Assessment*
- *Corrective Action*

- **Configuration Management**
- **Safety Conscious Work Environment**
- **Training**
- **Operator Readiness**
- **Security**
- **Environmental Compliance**
- ***Work Control***

***Tracking to Satisfactory***

# *Leadership Assessments Show Significant Progress in all Categories*



# *NSAB is Effective*

- *Membership is strong and inquisitive*
- *Nuclear Safety and Management issues are being reviewed and addressed*
- *NSAB is focused on raising the standards of the Nuclear Organization (e.g., safety evaluations)*
- *NSAB monitors and promotes the effectiveness of Nuclear Oversight*
- *Current NSAB effectiveness has been recognized by the Nuclear Committee Advisory Team (NCAT)*

# *Board of Trustees Nuclear Committee Provides Ongoing Oversight*

- *Meets twice a month*
  - *periodic on-site observations*
- *Reviews comprehensive written report issued monthly*
- *Receives strong support from the Nuclear Committee Advisory Team (NCAT)*

# *Millstone Organization Emphasizes Separation of Operations from Recovery*

- *Mike Brothers - VP, Operations*
  - *Unit 3 operations*
- *Jack McElwain - VP, Unit 2*
  - *Unit 2 recovery*
  - *Unit 1 safe shutdown*
- *Marty Bowling - VP, Technical Services*
  - *Regulatory and engineering services*
- *Dave Amerine - VP, Human Services*

# *Organizational Planning Objectives*

- *Simplified long-term organization*
- *Improved economies of scale*
- *Systematic phaseout of the recovery teams*
- *Implemented when unit-specific Recovery Organizations are no longer required*

# *The 1998-2000 Performance Plan Will Continue Improvement at Millstone*

- *Based on strategic planning completed by Nuclear Officers*
- *Organized around five Strategic Focus Areas:*
  - *Safety*
  - *Operating Excellence*
  - *Work Environment*
  - *Organizational Effectiveness*
  - *External Relations*
- *Emphasizes self assessment and monitoring*
- *Contains the Priority Initiatives*
- *Fully implemented following Unit 2 Restart*

# *NU's Eight Restart Affirmation Criteria and Current Status for Unit 3 Restart are Satisfactory or Will be in May 1998*

1. *Root causes for decline in Millstone performance have been identified and corrected*
   SATISFACTORY
2. *Compliance with the licensing and design bases has been restored*
   TRACKING TO SATISFACTORY
3. *Safety Conscious Work Environment has been established*
   SATISFACTORY
4. *Self Assessment and Corrective Action processes identify and resolve problems in a timely manner*
   SATISFACTORY

# *NU's Eight Restart Affirmation Criteria and Current Status for Unit 3 Restart are Satisfactory or Will be in May 1998*

5. *Unit and support organizations are ready to resume operations*

   *TRACKING TO SATISFACTORY*

6. *Entire station is prepared to properly support unit operations*

   *TRACKING TO SATISFACTORY*

7. *Management controls and oversight measures are in place to prevent significant future performance declines*

   *SATISFACTORY*

8. *Restart readiness is affirmed using a rigorous process*

   *TRACKING TO SATISFACTORY*

# *Safety Conscious Work Environment*

*Dave Amerine*
*Vice President - Human Services*

# *Millstone Station has Established a Safety Conscious Work Environment*

1. *Employees are willing to raise concerns*
2. *Line management handles issues effectively*
3. *Employee Concerns Program is effective*
4. *We recognize and address "focus areas"*
5. *ECOP concurs*
6. *LHC concurs*

# *We Have Completed our Recovery Requirements*

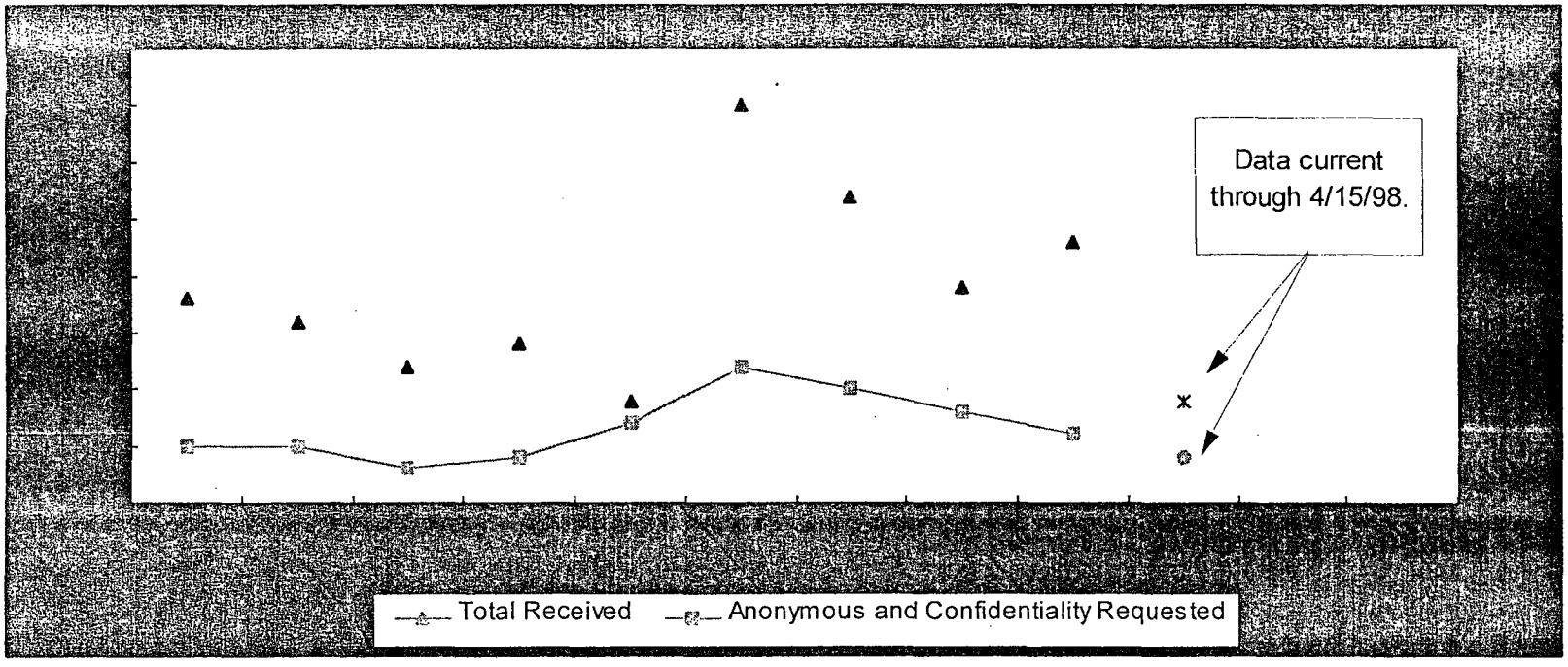
- *Submitted SCWE Restart Readiness Letter*
- *Met Success Criteria*
  - *Nuclear Oversight Concurs*
  - *ECOP Concurs*
  - *NSAB Concurs*
- *Responded to all LHC recommendations*

# *Employees are Willing to Raise Concerns*

- *November 1997 - Leadership Assessment*
  - *97.9% leaders rated effective*
- *November 1997 - Culture Survey*
  - *82% areas had a SCWE*
- *February 1998 - ECOP survey*
  - *95% would use their leadership*
- *February 1998 - LHC interviews*
  - *99% would raise issues to their leadership*

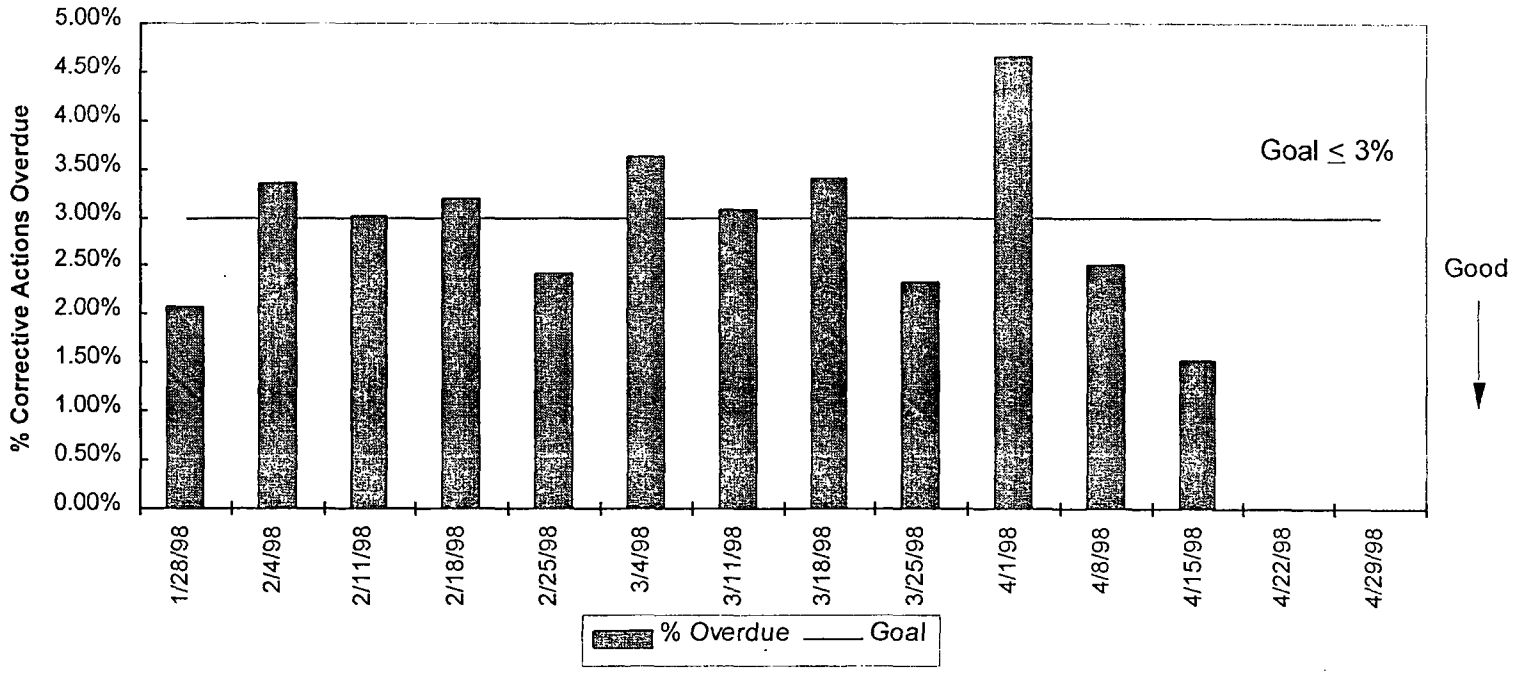
# The Number of Concerns Received Anonymously or Requesting Confidentiality Does Not Show an Adverse Trend

*Criterion currently being met*



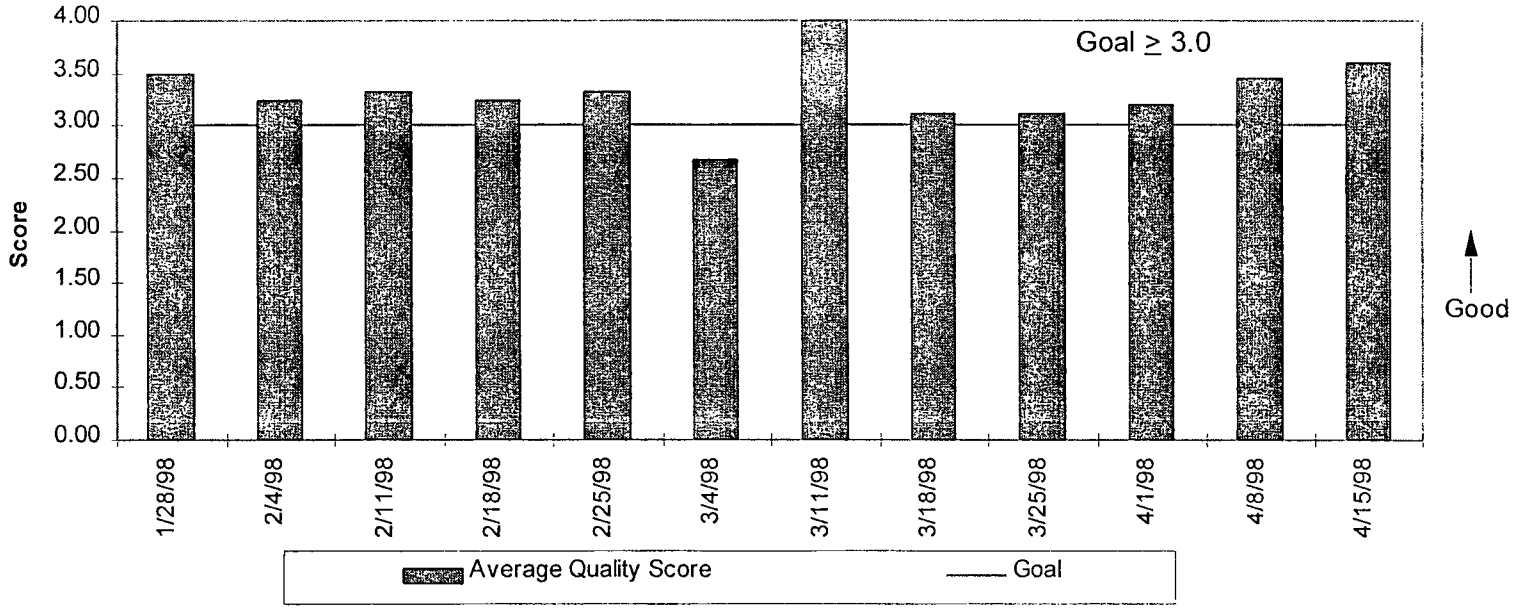
# *We are Achieving our Goal to Complete Corrective Actions Effectively and Efficiently*

## Criterion currently being met



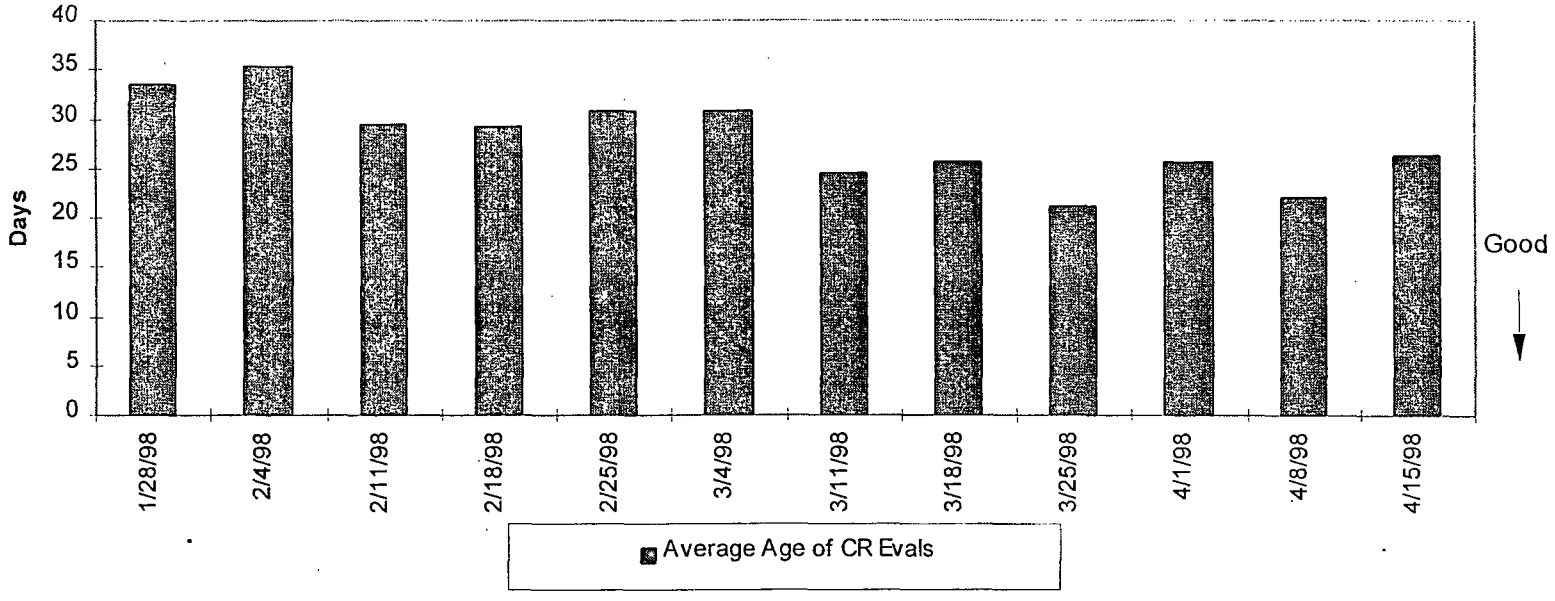
# Condition Report Evaluations are High Quality and are at or Above Goal

*Criterion currently being met*



# *CR Evaluations are Being Completed in a Timely Manner and Show no Adverse Trend*

**Criterion currently being met**

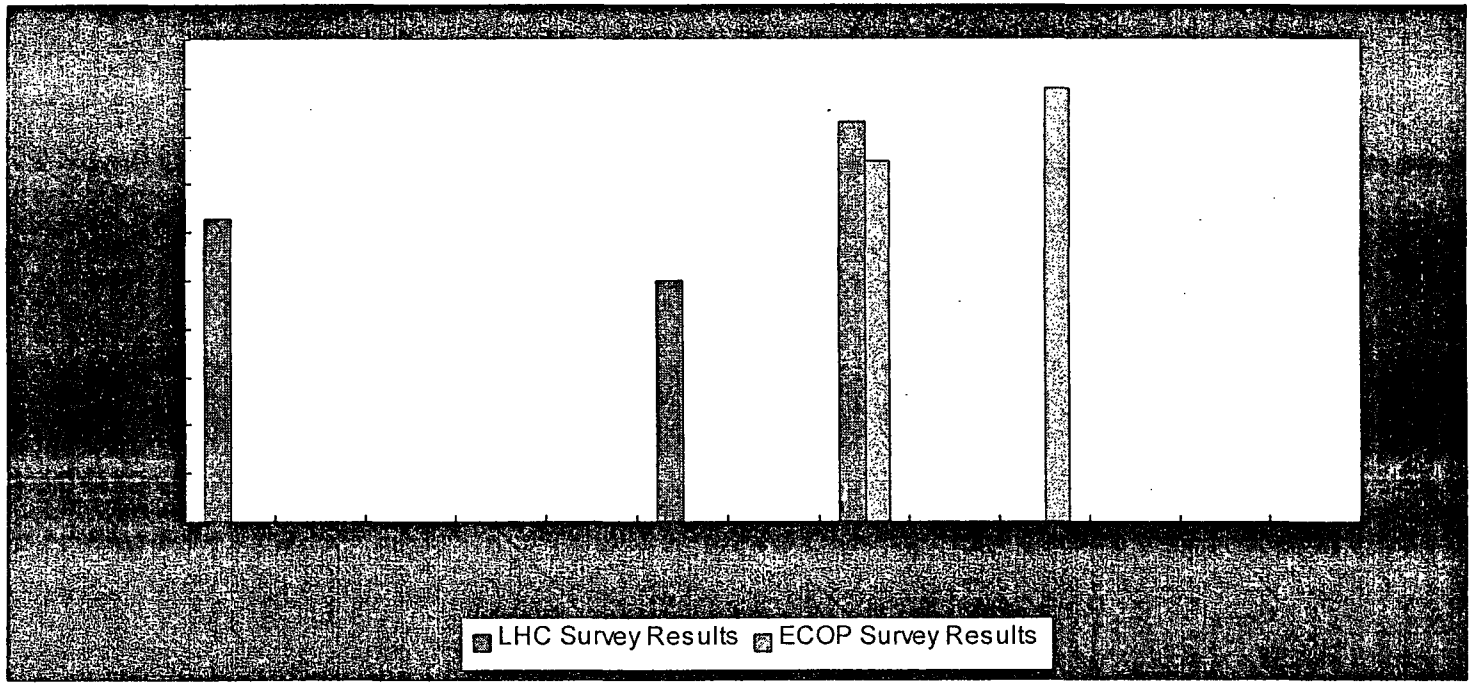


# *Employee Concerns Program is Effective*

- *Age of concerns under investigation has improved to ~50 days*
- *People who would use program again has significantly increased -- 90%*
- *ECOP judged program as effective*
- *LHC judged program as effective*
- *NRC 40001 evaluation judged program as effective*

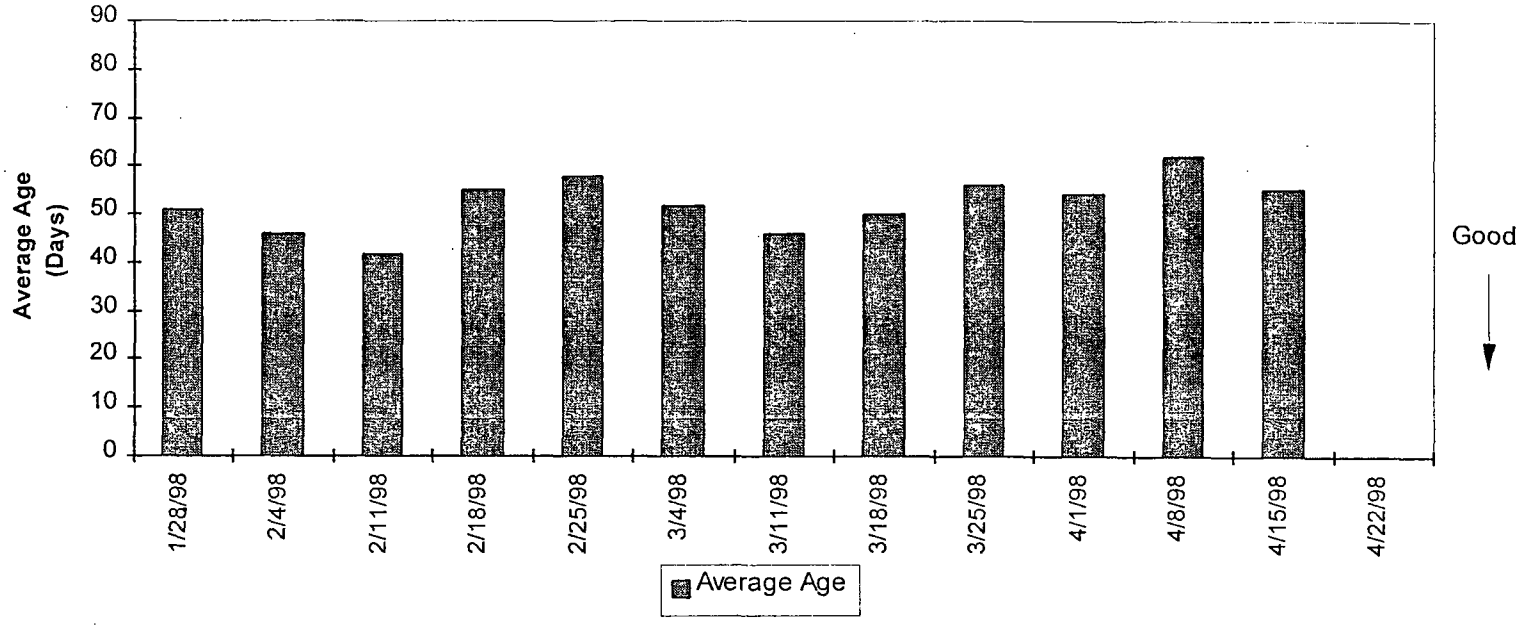
# *A Substantial Majority of People Who Have Used the Employee Concerns Program Would Use it Again*

**Criterion currently being met**



# We are Resolving Concerns in a Timely Fashion and are Taking Steps to Continue Improvement

*Criterion currently being met*

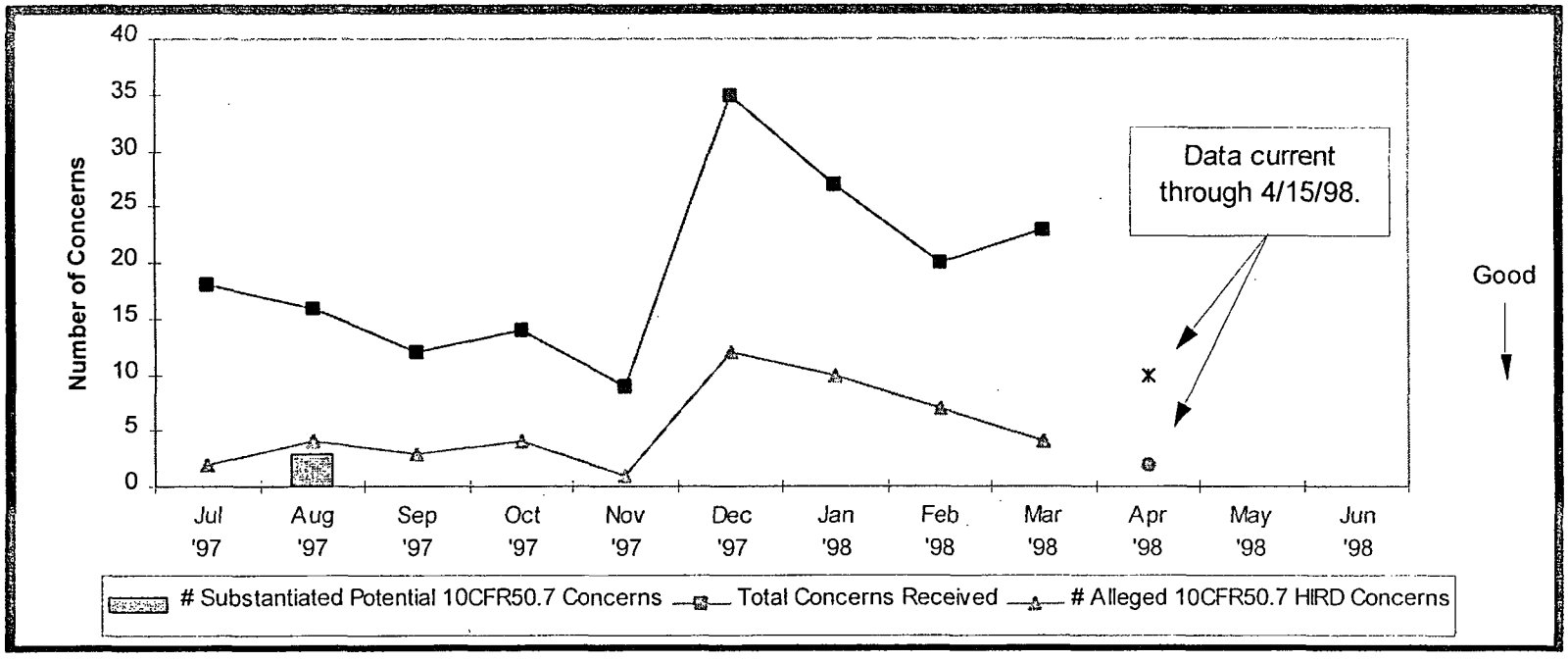


# *ECP File Review Confirms HIRD Incidents are Infrequent and Handled Responsibly*

- *228 Closed Case Files Reviewed*
- *101 Cases Alleged HIRD*
- *56 Alleged Potential 10CFR50.7 Concerns*
  - *36 unsubstantiated*
  - *3 substantiated (MOV Issue)*
  - *8 indeterminate (all >1 year ago)*
  - *9 require additional information*
- *56 Alleged Chilling Effect Concerns*
  - *23 unsubstantiated*
  - *16 substantiated*
  - *8 indeterminate*
  - *9 require additional information*

# Substantiated 10CFR50.7 Concerns are Infrequent and Handled Responsibly

*Criterion currently being met*



# Management has Been Trained

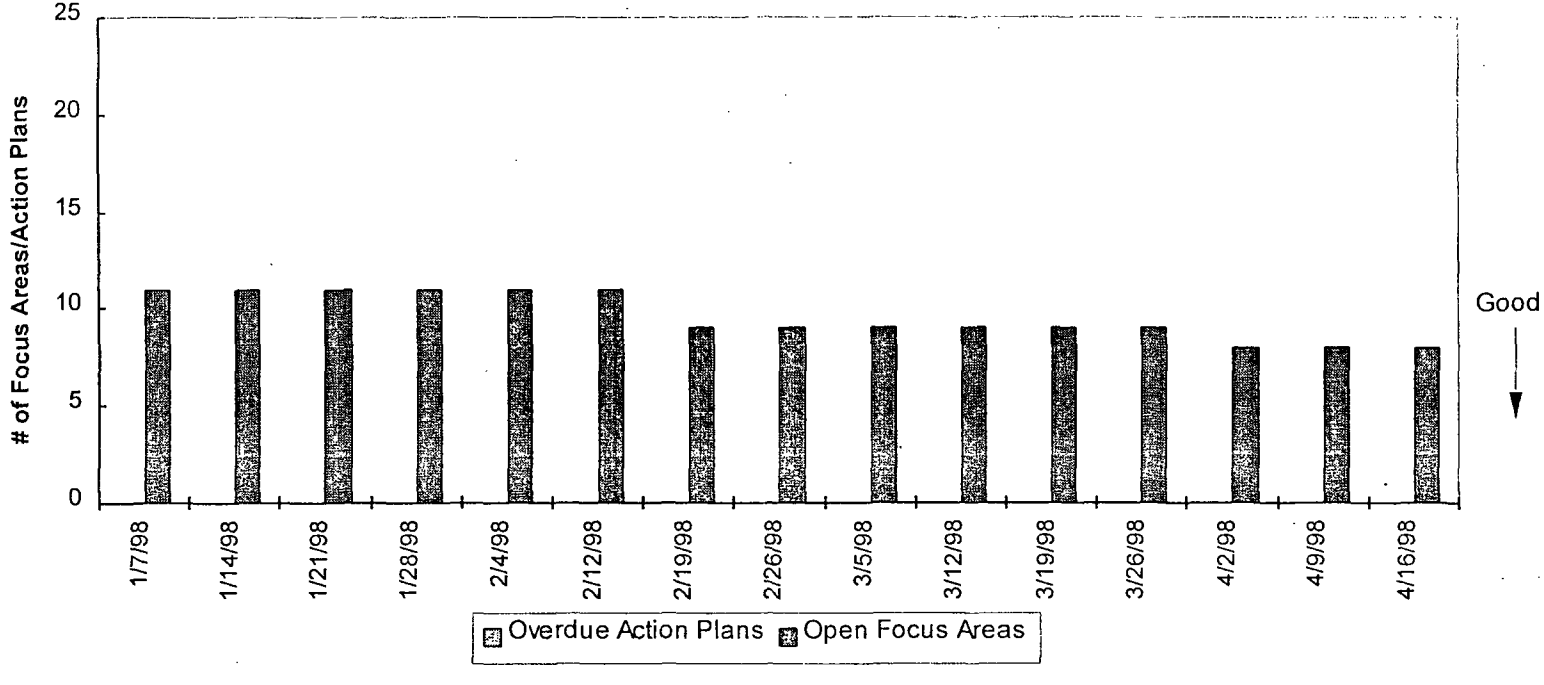
- *> 95% of leaders have been to SCWE training*
- *SCWE Training has been combined into non-redundant modules*
  - *Managing For Nuclear Safety*
  - *Civil Treatment for Managers*
  - *Employee Relations*
- *A quick start program for new leaders has been developed*

# *We Recognize and Address Potential Focus Areas*

- *We are addressing issues before they become problems*
- *More than 60 feedback items from the site on "Success Stories"*
- *The "people team" is being used as a resource for the organization*
  - *leaders know what to do*
  - *they are asking for assistance on how to do it*
- *Performance in remaining focus areas is sufficient to support restart*

# The Number of Open Focus Areas has Shown a Steady Decrease

*Criterion currently being met*



# *We are Committed to Sustaining and Improving our SCWE Performance*

- *Empowered and confident workforce exists at Millstone*
- *Responsive Human Services functions in place*
- *1998-2000 Work Environment Performance Plan being implemented*
- *Performance indicators used to detect any "back sliding" and to monitor the workforce maturation*

# *We Are Committed to Sustaining and Improving Our SCWE Performance (Cont.)*

- *SCWE processes refined by lessons learned*
- *Ongoing training facilitates the maturation process*
- *Continued measurement will ensure we sustain performance*
- *Transition to the "final" organization dictated by performance*

# *Millstone Station has Established a Safety Conscious Work Environment*

1. *Employees are willing to raise concerns*
2. *Line management handles issues effectively*
3. *Employee Concerns Program is effective*
4. *We recognize and address "focus areas"*
5. *ECOP concurs*
6. *LHC concurs*

# *Deferred Items Management*

*Mike Brothers*
*Vice President - Nuclear Operations*

# *We Have Made Substantial Enhancements to our Ability to Safely Operate Unit 3*

- *DB/LB Substantially Restored*
- *FSAR is up to date*
- *Technical Specifications are current and usable*
- *Procedure Upgrade Program is complete*

# *The Materiel Condition of Unit 3 has Been Improved*

- *Control Room*
- *Intake Structure*
- *Outfall*
- *Engineered Safeguards Features (ESF)*

# *The Materiel Condition of Unit 3 has Been Improved*

- *224 Modifications*
  - *CMP Based*
    - *RSS*
    - *SBO Battery*
    - *ECCS Throttle Valves*
  - *Reliability and Availability Improvement*
    - *Generator Stator Cooling*
    - *RCP Replacement*

# *Unit 3's Backlog is ~~Acceptable for Restart~~*

- *Reviewed for Individual Impact*
- *Reviewed for Aggregate Impact*
- *Assessed by Nuclear Oversight*
- *Consistent With Industry Standards*

# *Disciplined Work Prioritization Process Applied to Identify Items Deferrable Until After Restart*

| | |
|---|---|
| ■ *Corrective Action Assignments* | *3,687* |
| ■ *Configuration Mgmt. Discovery* | *888* |
| ■ *Corrective Maintenance* | *1270* |
| ■ *Operator Work Arounds* | *16* |
| ■ *Control Room Deficiencies* | *21* |
| ■ *Temporary Modifications* | *15* |
| ■ *Engineering Backlog* | *599* |
| ***Total Deferrable Items*** | **6,496** |

## *We Will Have Accomplished all Restart Required Corrective Actions and a Substantial Majority of Deferrable Items Prior to Unit 3 Restart*

| | |
|---|---|
| ■ *Restart Assignments (4/22/98)* | *12,039 to be completed by Mode 2 (97% complete)* |
| ■ *Deferrable Assignments (4/22/98)* | *6,326 of 10,013 completed* |
| ■ *Maintenance Work Orders (4/22/98)* | *40,330 to be completed by Mode 2 (99% complete)* |

## *We Will Have Accomplished all Restart Required Corrective Actions and a Substantial Majority of Deferrable Items Prior to Unit 3 Restart*

| | |
|---|---|
| ■ *Restart Configuration Management Items (4/22/98)* | *2,283 to be completed by Mode 2 (99% complete)* |
| ■ *Deferrable Configuration Management Items (4/22/98)* | *462 of 1,350 completed* |
| ■ *Restart ICAVP DR Assignments (4/22/98)* | *219 to be completed by Mode 2 (88% complete)* |
| ■ *Deferrable ICAVP DR Assignments (4/22/98)* | *322 of 580 completed* |

# *Unit 3 has Provided Additional Assurances in the Form of Post-Restart Commitments*

- *Submit Backlog Management Plan Update to Reflect Actual Backlog of Items Deferred Until After Restart*
- *Disposition Remaining ICAVP DR Corrective Actions*
- *Submit Quarterly FSAR Updates*
- *Provide Quarterly Key Issue Performance Updates*
- *Provide Quarterly Backlog Management Performance Updates*

# *Unit 3 has Provided Additional Assurances in the Form of Post-Restart Commitments*

- *Submit Schedule for LARs Planned or Required in 1998 and 1999*
- *Provide Quarterly License Amendment Schedule Updates*
- *Provide Outage Plan Briefings for RFO6 & RFO7*
- *Submit RFO6 Post Outage Assessment Report Which Includes Final Backlog Management Performance Report*
- *Submit RFO7 Post Outage Assessment Report*

# *Extensive Training for Unit Personnel has Been Completed*

- *Forum for Leadership Excellence*
- *Configuration Management Training*
- *50.59 Training*
- *Operations Department Training*
  - *Modifications*
  - *Reactivity Management*
  - *Conservative Decision Making*
  - *Startup & Power Ascension*

# *A Systematic Organizational Readiness Process is in Place*

## DEPARTMENT READINESS ASSESSMENTS -- RESTART ISSUES

| | | |
|---|---|---|
| Green | Green | Green |
| Green | Green | Green |
| Green | Green | Green |
| Green | Green | |
| Yellow | | |
| Green | | |
| Green | | |

| | | | | | |
|---|---|---|---|---|---|
| Green | Satisfactory | | Tracking to Satisfactory | Red | Unsatisfactory |

# *Unit 3 Will be Ready to Resume Safe Operation by the end of May*

- *DB/LB Substantially Restored*
- *Materiel Condition Is Very Good*
- *224 Modifications Completed*
- *Deferrable Items Reviewed and Acceptable For Restart*
- *Organization is Ready to Support Unit Operations*

# *Management Oversight*

*Marty Bowling*
*Vice President - Technical Services*

# *Critical Self Assessment is the Key to Improved Performance and Preventing Complacency*

- *Promoting a Questioning Attitude*
- *Lowering the Threshold*
- *Setting and Raising Standards*

# *Millstone Self-Assessment Program is Comprehensive*

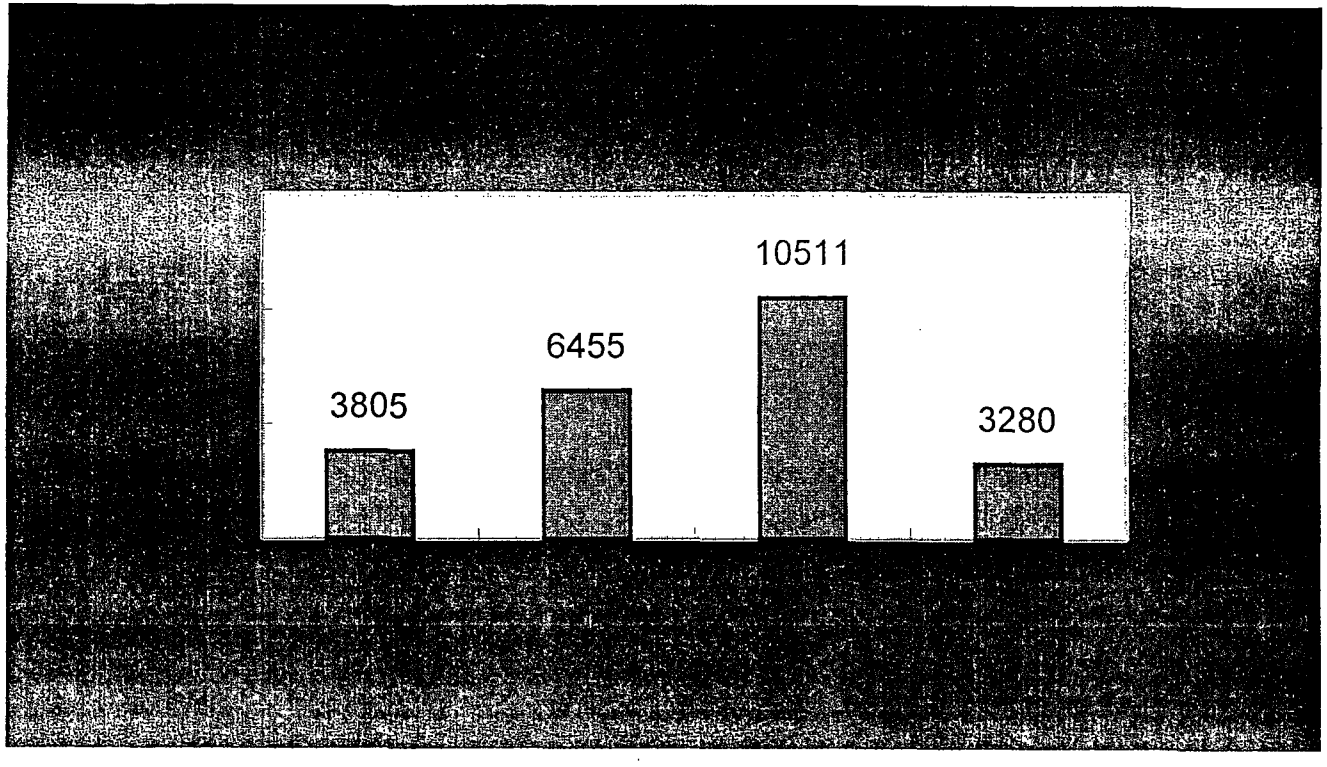
- *All departments have self-assessment programs and 1998 plans - Units 2 and 3 have dedicated coordinators*
- *Self Assessment Procedure OA11 provides common station framework*
- *Over 500 personnel trained*
- *Focused on both programs and process*
- *14 INPO assist visits and frequent use of industry experts*
- *Periodic self assessment of the Program is performed*

# *Millstone is Continuing to Promote a Questioning Attitude Which is Critical for Effective Self Assessment*

| | *Millstone Employee Attitude toward Self Assessment* |
|---|---|
| *Participation in >3 Assessments Since 9/97* | *91%* |
| *Useful Results Obtained* | *94%* |
| *Awareness of Results* | *83%* |
| *Confidence in Corrective Actions* | *94%* |

***Survey Date: 3/20/98***

# *Millstone is Continuing to Lower the Threshold in Identifying Problems*



# *Millstone is Continuing to Look for Issues Before They Become More Significant*

- *256 self assessments conducted since 1996*
- *150 self assessments planned for 1998*
- *Self assessments being conducted in 1998 for the 16 site Key Issues*
- *Comprehensive set of indicators & trending being used to monitor performance*

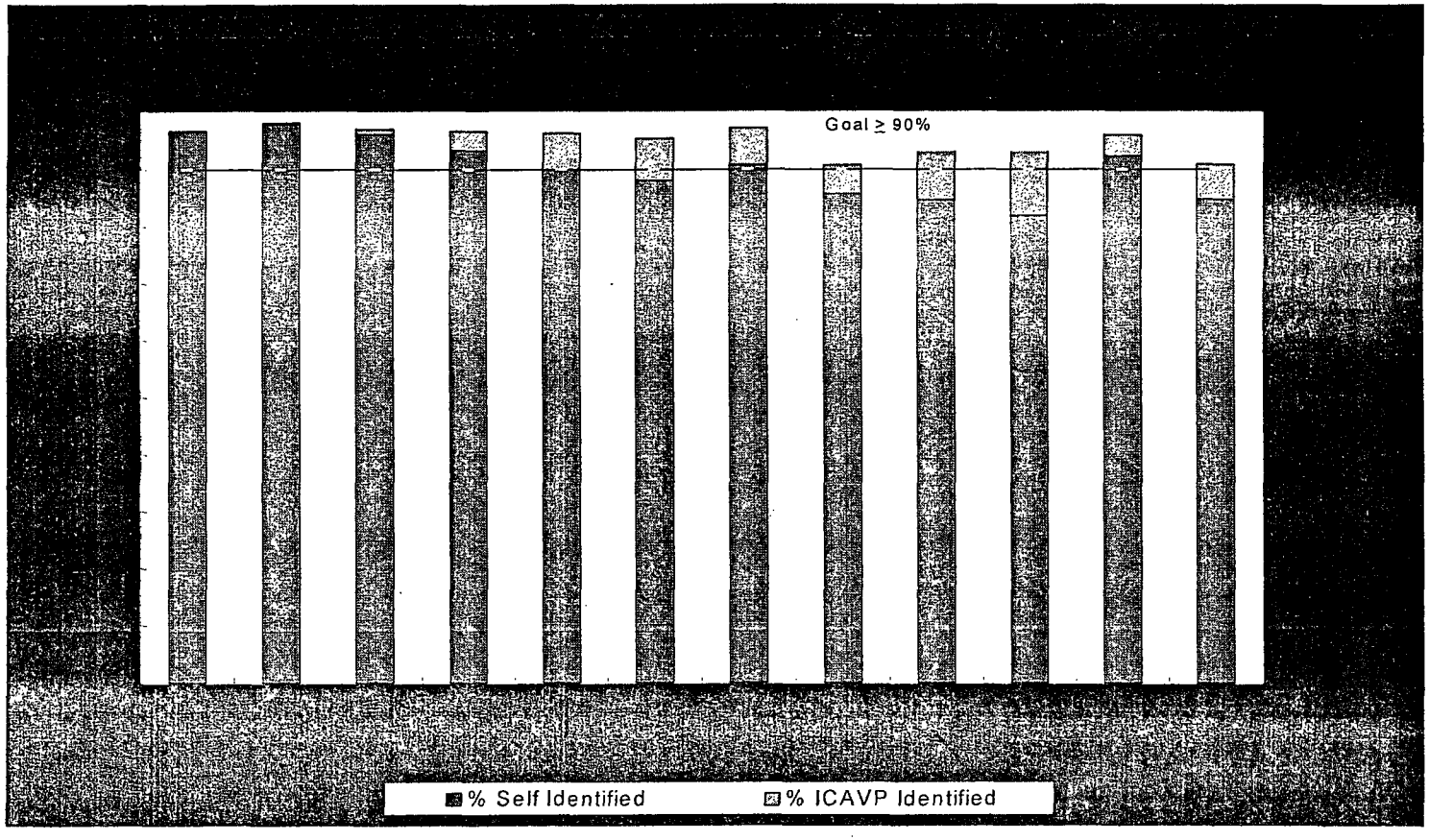
# *A Systematic Organizational Readiness Process is in Place*

## DEPARTMENT READINESS ASSESSMENTS -- RESTART ISSUES

| | | |
|---|---|---|
| Green | Green | Green |
| Green | Green | Green |
| Green | Green | Green |
| Green | Green | |
| Yellow | | |
| Green | | |
| Green | | |

| | | | | | |
|---|---|---|---|---|---|
| Green | Satisfactory | | Tracking to Satisfactory | Red | Unsatisfactory |

# Millstone is Continuing to Self Identify Most of the Issues

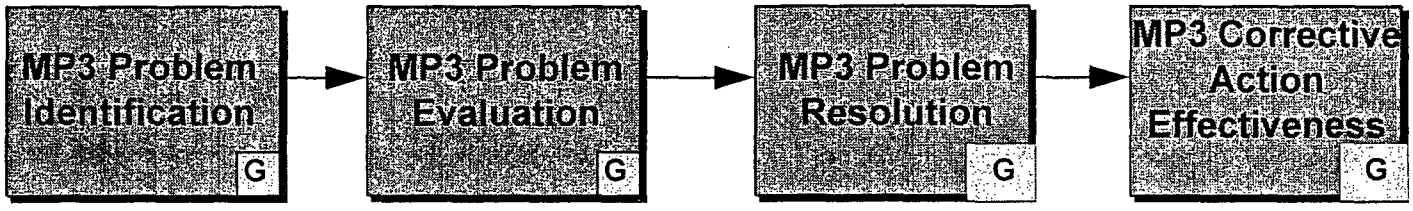


# *MP 3 Reviews Identified the Safety Significant Items (1/96 - 4/20/98)*

| Safety Significance | LERs Submitted |
|---|---|
| ■ *Self Identified* | *136* |
| • *Low* | *117* |
| • *Moderate* | *15* |
| • *High* | *4* |
| ■ *ICAVP Identified* | *4* |

- *none of high safety significance (1 moderate and 3 low)*
- *none from DRs*
- *none of these items resulted in a loss of function*

# *Effective Corrective Actions Support and Reinforce Effective Self Assessments*




- G - Low Threshold
- G - Self Identification
- G - Mgmt. Self Assessment

- G - Operability & Report'ity
- G - Avg. Age for Evaluation
- G - 30-Day Evaluation
- G - MRT Quality Score

- G - Key Issues
- Restart Backlogs
- G - Overdue Items
- G - Repetitive Issues

- Unit Organizational Readiness
- G - Configuration Mgmt. Program Effectiveness
- G - Trending
- G - Self Assessment
- G - Oversight Assessment
- G - NRC SIL Closure Quality

G- Green - Satisfactory
Y - Yellow - Tracking to Satisfactory
R - Red - Unsatisfactory

# *Millstone is Fixing Problems*

## MP3 Status

| | |
|---|---|
| Restart Assignments | 97% Complete |
| Deferrable Assignments | 63% Complete |
| DB/LB Conformance Assignments | 99% Complete |

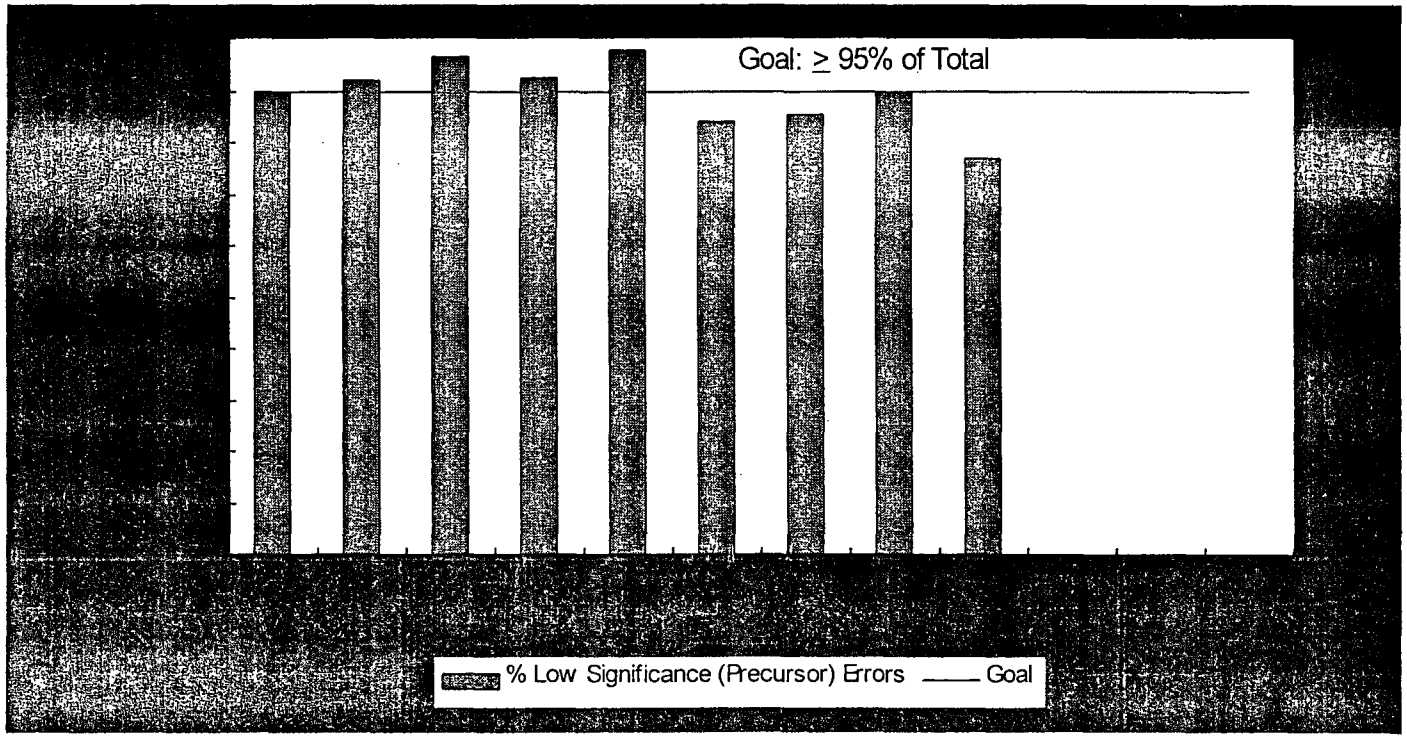
## *Millstone has Established Effective Management Processes to Independently Review Performance and Raise Standards*

- *Safety Standards*
  - *Nuclear Safety Assessment Board*
  - *Station Operations Review Committee*
  - *Plant Operations Review Committee*
  - *Independent Safety Engineering Group (MP3)*
  - *Expert Panels*

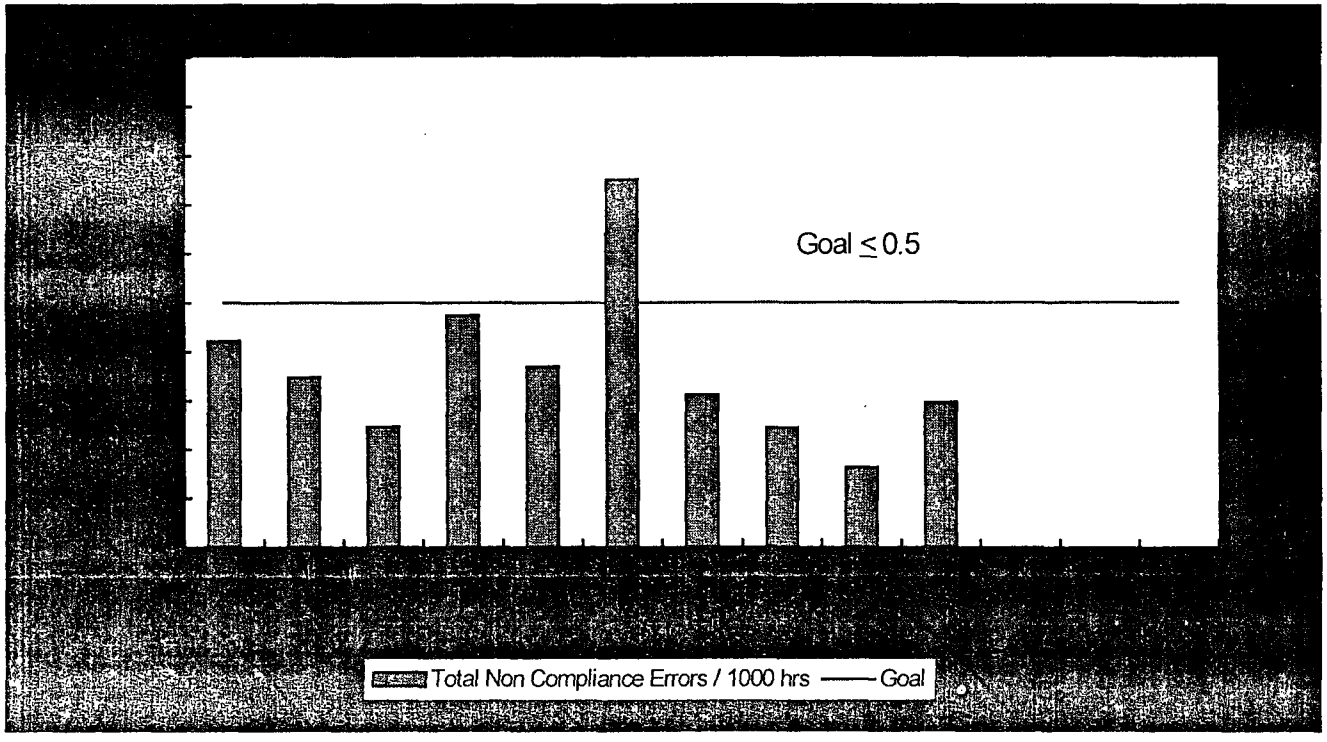
## *Millstone has Established Effective Management Processes to Independently Review Performance (continued)*

- *Program Standards*
  - *Independent Review Team*
  - *Management Review Teams*
- *Human Performance Standards*
  - *Executive Review Board*
  - *Executive Training Council*
  - *Human Performance Enhancement System*

# *Unit 3 Human Performance is Receiving Management Focus*



# Unit 3 Procedure Adherence is Receiving Management Focus



# *Millstone has Added Two New Organizations to Self Assess Adherence to the DB/LB*

- *Unit Configuration Management Teams - Monitor and Maintain DB/LB*
- *Engineering Assurance - Performs Self Assessments of the Design Control Process*

# *Millstone has Demonstrated Effective Self Assessment*

- *Questioning Attitude and Low Threshold*
- *Comprehensive Formal Program*
- *Management Process for Monitoring Performance and Raising Standards*
- *Comprehensive set of Key Performance Indicators and Trending*

# *Nuclear Oversight*

*John Streeter*

*Vice President - Nuclear Oversight*

# *Nuclear Oversight Recovery Approach had Two Key Objectives*

- *Restore the capability of the Nuclear Oversight organization to perform its function (NORP - Nuclear Oversight Recovery Plan)*

- *Provide timely and specific assessments of unit recovery activities and readiness for restart (NORVP - Nuclear Oversight Restart Verification Plan)*

# *Nuclear Oversight's Capability has Been Restored*

- *NORP addressed NRC, NU and external assessment issues*
- *NORP has transformed Nuclear Oversight*
- *Nuclear Oversight has demonstrated its value*
- *NSAB confirmed Oversight effectiveness in meeting its regulatory functions*

# *Nuclear Oversight Recovery Plan has Been Completed*

- *Initiated in December 1996*
- *Comprised of 179 action items*
- *Actions were comprehensive*
  - *management expectations*
  - *roles and responsibilities*
  - *organization and staffing*
  - *processes and procedures*
  - *measurement and feedback*
- *Included involvement of Millstone Officers*
- *Closed in December 1997*

# *Nuclear Oversight Recovery Plan has Transformed Nuclear Oversight*

- *Staff increased from 54 to 105*
- *Technical credentials enhanced. Presently:*
  - *65 individuals with technical degrees*
  - *13 PE's*
  - *29 have held SRO/RO licenses/certifications*
  - *5 Rotational assignments*
- *Increased industry experience*

# *Nuclear Oversight Recovery Plan has Transformed Nuclear Oversight (Cont.)*

- *Integrated Nuclear Oversight capabilities, activities and products*
- *Integrated Nuclear Oversight with site activities*
- *Enhanced performance based assessment while maintaining compliance*
- *Improved timeliness, quality, and scope of audits, surveillances, and assessments*

# *Nuclear Oversight has Performed Numerous Assessments of Millstone Activities*

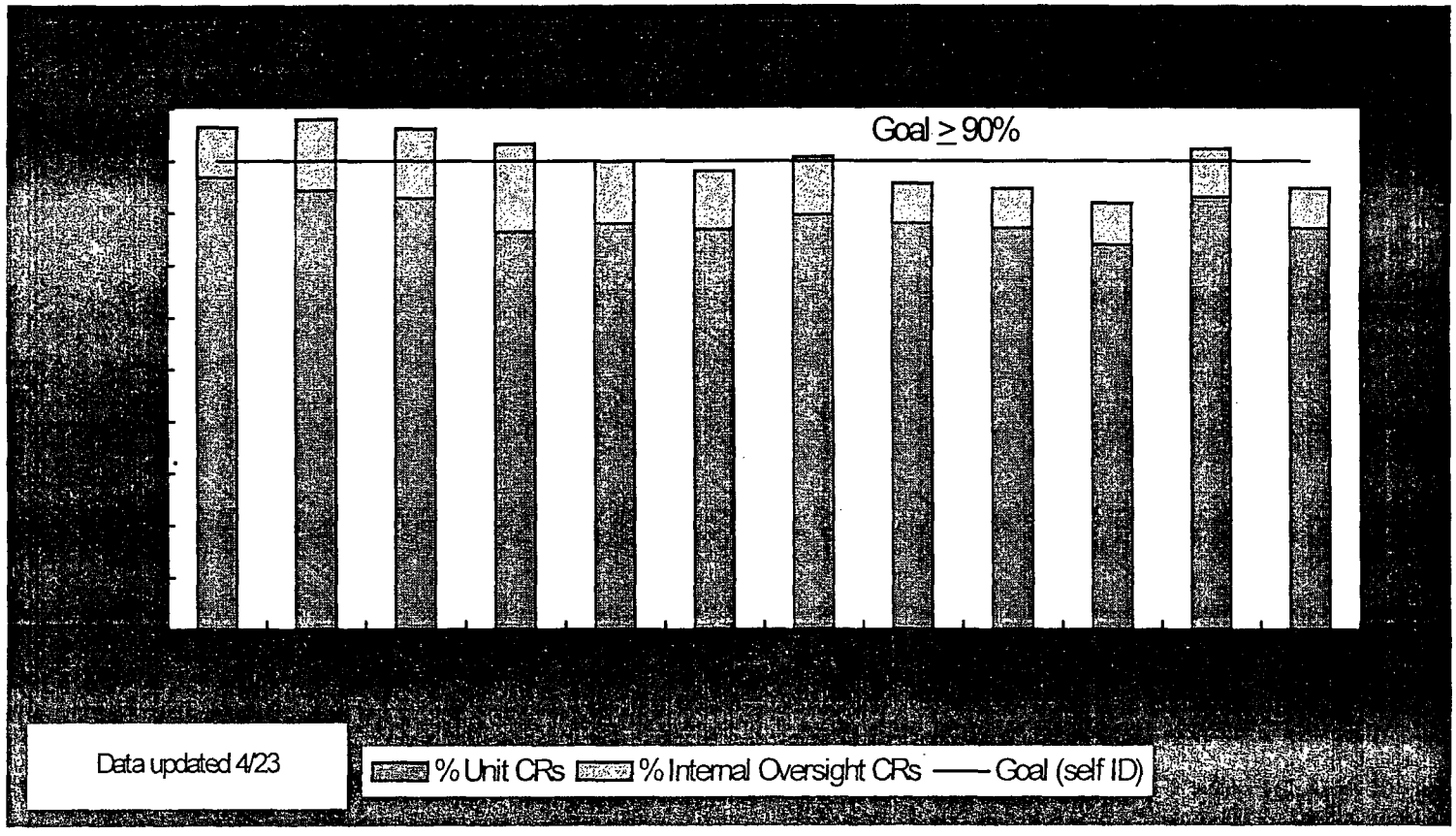
- *> 12,000 QC inspections*
- *> 11,000 AWOs reviewed*
- *3,772 Oversight Evaluation Reports (NORVP)*
- *350 Operating Experience Evaluations*
- *263 Field Observations*
- *81 Surveillances*
- *36 Audits*
- *30 Vertical assessments/slices*
- *11 ISEG evaluations*
- *7 Independent Review Team reports*

**1/1/97- Present**

# *Nuclear Oversight has Demonstrated its Value by Resolving Important Issues*

- *ICAVP readiness*
- *Operator training audit*
- *MOV assessments*
- *Material control*
- *ARCOR application*
- *40500 readiness*
- *Mode 4 and Mode 3 readiness*
- *RSS issue*
- *Design process review*

# Problems are Identified by Millstone Nuclear Organizations



# *Management is a Proponent of Nuclear Oversight*

- *Transcends simple acceptance*
  - *Receptivity to input*
  - *Solicitation of advice*
  - *Request for special reviews*
- *Acknowledgment of Nuclear Oversight contributions and value*
- *Integration as an equal partner*
- *Used to set and raise standards*

# *Nuclear Oversight Restart Verification Plan (NORVP) has Provided Effective Restart Readiness Assessments*

- *Covered 21 assessment areas*
- *Developed critical attributes*
- *Assessed and scored attributes*
- *Rated areas on bi-weekly basis*
- *Identified areas needing improvement*

# *Nuclear Oversight has Used NORVP to Determine Readiness for Major Milestones*

- *Readiness for 40500 inspection affirmed on 1/17/98*
- *Success Criteria for 15 of 16 key issues affirmed on 3/31/98*
- *Mode 4 readiness affirmed on 4/6/98*
- *OSTI readiness affirmed on 4/6/98*

# *Unit 3 NORVP Results*

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Leadership | Y | Y | G | G | G | G | G | G | G | G | |
| Self Assessment | Y | Y | Y | Y | Y | Y | Y | G | G | G | |
| Corrective Action | Y | Y | G | G | G | G | G | G | G | G | |
| NSAB/Oversight Recovery | G | G | G | G | G | G | G | G | G | G | |
| Configuration Management | Y | Y | G | G | G | G | G | G | G | G | |
| Procedural Quality/Adherence | G | G | Y | Y | Y | Y | G | G | G | G | |
| Work Control/Planning | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y |
| Regulatory Compliance | Y | Y | G | G | G | G | G | G | G | G | |
| SCWE | Y | Y | Y | Y | Y | Y | Y | Y | Y | G | |
| Emergency Prep | Y | Y | Y | Y | Y | G | G | G | G | G | |
| Radiation Protection | G | G | G | G | G | G | G | G | G | G | |
| Training | Y | Y | Y | Y | Y | Y | Y | Y | G | Y | G |
| Conduct of Operations | Y | Y | G | G | G | G | G | G | G | Y | G |
| Security | G | G | G | G | G | G | G | G | G | G | |
| Environmental Monitoring | Y | Y | Y | Y | G | G | G | G | G | G | |
| OVERSIGHT ASSESSMENT AREAS | | | | | | | | | | | |
| Mode Changes | *Evaluation Commenced 2/6/98* | | | | Y | Y | Y | Y | G | G | |
| Engineering | G | G | G | G | G | Y | Y | Y | Y | Y | G |
| Maintenance/I&C | G | G | Y | Y | G | G | G | G | G | G | |
| Materials | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | G |
| Chemistry | G | G | G | G | G | G | G | G | G | G | |
| Fire Protection | Y | G | Y | Y | Y | G | Y | G | G | G | |

G Satisfactory

R Significant Weakness

Anticipated Status Next Cycle

Improvement Needed

B Not Assessed

# *Nuclear Oversight is Committed to Sustaining and Improving Performance*

- *Sustain conformance with restart success criteria*
- *Continue Line-Oversight rotations*
- *Utilize self assessments to identify areas for improvement*
- *Continue external assessments*

# *Nuclear Oversight is Able and Prepared to Support Millstone Restart and Operation*

- *Success Criteria have been met*
  - *Problems are identified*
  - *Management embraces Oversight assessment*
  - *NSAB confirmed Oversight effectiveness*
- *Value has been demonstrated*
- *Continuing improvement is ongoing*

# *Concluding Remarks*

*Bruce Kenyon*

# LITTLE HARBOR

# CONSULTANTS

# OVERSIGHT OF MILLSTONE WORK ENVIRONMENT

**Little Harbor Consultants**
**Presentation to**
**NRC Commissioners**
**May 1, 1998**



# RESULTS OF STRUCTURED INTERVIEWS OF THE MILLSTONE WORKFORCE CONDUCTED IN FEBRUARY 1998

## INTERVIEW QUESTIONS

- Used Essentially the Same Questions as for July 97 Interviews
- Conducted 298 Interviews
- All Work Groups Represented
- Did Not Select People Previously Interviewed
- LHC Selected and Contacted Interviewees
- 24 Volunteers Interviewed
- Rate Attributes 1 to 5



## WILLINGNESS OF WORKFORCE TO RAISE CONCERNS

If you became aware of a problem that could affect safe operation of the plant, would you raise that concern?

6/97: 100% Yes | 2/98 100% Yes

Are you aware of any nuclear safety concerns that have not been raised?

6/97: 100% No | 2/98 100% No

## WILLINGNESS OF WORKFORCE TO RAISE CONCERNS, cont'd.

Has anyone told you that raising concerns to the NRC could delay restart?

6/97: 97% No | 2/98 93% No

If yes, would that stop you from raising a concern to the NRC?

6/97: 100% No | 2/98 100% No



## WILLINGNESS OF WORKFORCE TO RAISE CONCERNS, cont'd.

Would you take a concern to the NRC?

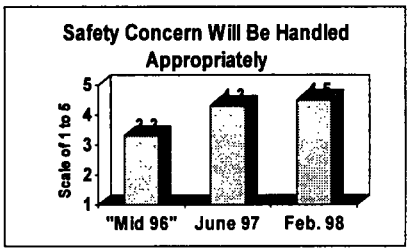
6/97: 97% Yes | 2/98 98% Yes

If not, why not?

- Not need to, would be resolved before necessary to go to NRC
- Lost confidence in NRC
- Would be resolved internally

# CONFIDENCE SAFETY CONCERNS WILL BE HANDLED PROPERLY

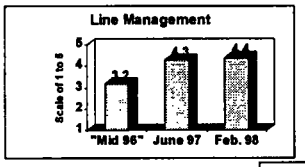
**What is your confidence that if a nuclear safety concern is raised, it will be handled in an appropriate manner?**

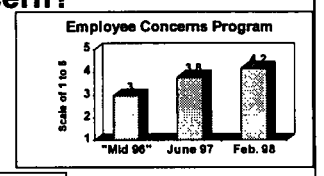


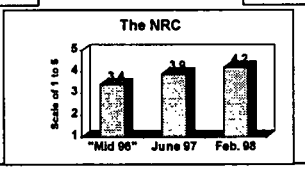



# CONFIDENCE SAFETY CONCERNS WILL BE PROPERLY HANDLED

**What is your confidence that going this route will result in a resolution of a concern?**



# CONFIDENCE SAFETY CONCERNS WILL BE PROPERLY HANDLED

**Is there any reason you would not use the ECP?**

**6/97: 92% No | 2/98 93% No**

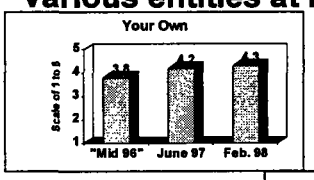
**Reasons why person would not use the ECP:**

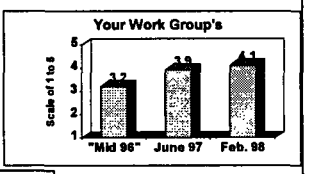
- Would not be necessary
- Has not been effective in the past
- Concern about confidentially
- Line management will solve the problem

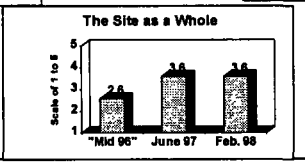


# EXISTENCE OF QUESTIONING ATTITUDE AT MILLSTONE

**How would you rate "Questioning Attitude" for various entities at Millstone?**



## CRITICAL SELF-ASSESSMENT AT MILLSTONE SITE

**Has Self-Assessment been discussed in work group?**

**6/97: 82% Yes | 2/98 94% Yes**

**If yes, is it being done in your work group?**

**6/97: 79% Yes | 2/98 98% Yes**

**Have you seen any useful results?**

**6/97: 58% Yes | 2/98 92% Yes**

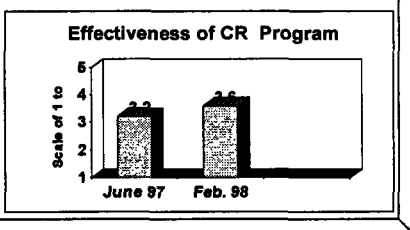


## CONDITION REPORT PROGRAM AT MILLSTONE SITE

**Are you aware of the Condition Report Program which is available to identify and resolve concerns?**

**6/97: 82% Yes | 2/98 99% Yes**

**If yes, how would you rate the effectiveness of the CR Program?**

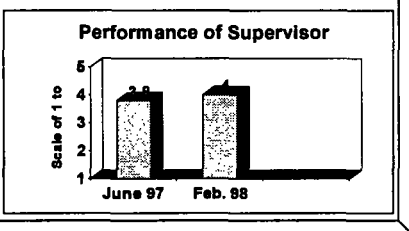


## MUTUAL TRUST AND RESPECT AT MILLSTONE SITE

**Do you believe that your immediate supervisor respects and trusts your judgment in ... your job?**

**6/97: 96% Yes | 2/98 97% Yes**

**Rate the performance of your supervisor on a scale of 1 to 5.**






## MUTUAL TRUST AND RESPECT AT MILLSTONE SITE, cont'd.

**Do you feel that you are making a contribution to the overall goals of Millstone?**

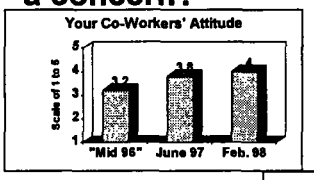
**6/97: 93% Yes | 2/98 99% Yes**

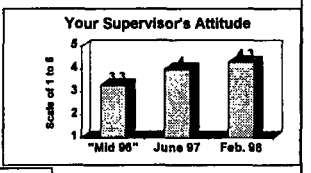
**Do you know or are you aware of employees who have raised concerns and were rewarded or praised for it?**

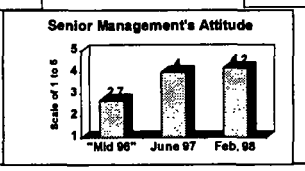
**6/97: 48% Yes | 2/98 78% Yes**

# MUTUAL TRUST AND RESPECT AT MILLSTONE SITE, cont'd.

**What is the attitude toward someone who raises a concern?**



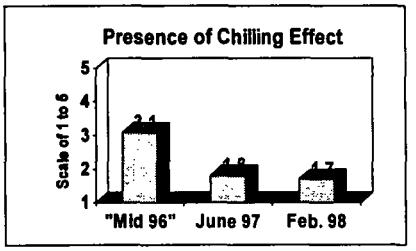





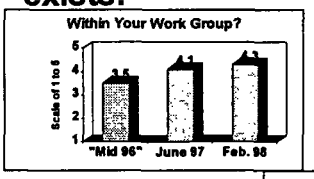

# LACK OF CHILLING EFFECT AT MILLSTONE SITE, cont'd.

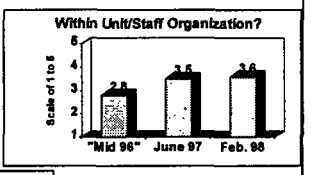
**How do you rate the presence of a chilling effect at Millstone?**

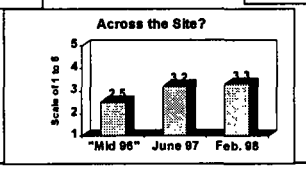


# TEAMWORK AND COOPERATION AT MILLSTONE SITE

**Rate the level of teamwork and cooperation that exists:**



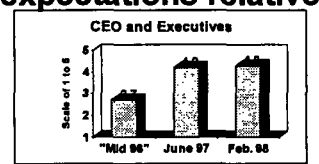



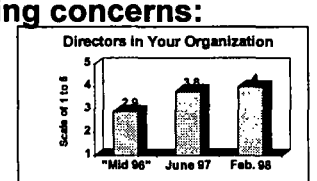



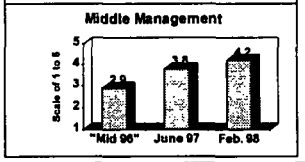


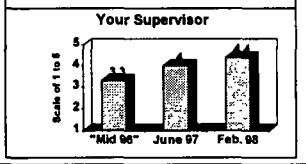

# SUCCESS AT COMMUNICATING EXPECTATIONS AND POLICY, cont'd

**Level of effectiveness in communicating expectations relative to raising concerns:**



## SUMMARY AND CONCLUSIONS

- Improved Awareness of Expectations
- Improved confidence in CAP
- Improved awareness of Self Assessments
- Results support observations by LHC
- Empowered workforce
- Improved work environment



## STATUS OF A SAFETY CONSCIOUS WORK ENVIRONMENT AT MILLSTONE

## STATUS OF NNECo SUCCESS CRITERIA FROM LHC ATTRIBUTES

| 12/12/97 | 1/27/98 | 2/19/98 | 3/3/98 | 4/7/98 |
|---|---|---|---|---|
| Yellow → | Yellow → | Yellow ↑ | + Yellow ↑ | + Yellow ↑ |

**NNECo Success Criteria**

1. Demonstrate the willingness to raise concerns.



## STATUS OF NNECo SUCCESS CRITERIA FROM LHC ATTRIBUTES

| 12/12/97 | 1/27/98 | 2/19/98 | 3/3/98 | 4/7/98 |
|---|---|---|---|---|
| Yellow ↑ | Yellow ↑ | Yellow ↑ | Yellow ↑ | Yellow ↑ |

**NNECo Success Criteria**

2. Demonstrate that issues are being effectively resolved by line management. (Corrective Action Program)

## STATUS OF NNECo SUCCESS CRITERIA FROM LHC ATTRIBUTES

| 12/12/97 | 1/27/98 | 2/19/98 | 3/3/98 | 4/7/98 |
|---|---|---|---|---|
| Yellow | Yellow | Yellow | Yellow | Yellow |

**NNECo Success Criteria**

3. Demonstrate that the ECP is effective.



## STATUS OF NNECo SUCCESS CRITERIA FROM LHC ATTRIBUTES

| 12/12/97 | 1/27/98 | 2/19/98 | 3/3/98 | 4/7/98 |
|---|---|---|---|---|
| Red | Red | Red | Yellow | Yellow |

**NNECo Success Criteria**

4. Demonstrate that management can recognize and effectively deal with alleged instances of HIR&D, or other circumstances which have created a chilling effect, which collectively are referred to as problem areas.

## STATUS OF NNECo SUCCESS CRITERIA

| | | |
|---|---|---|
| + Yellow ↑ | Workforce willing to raise concerns | Ready for Restart |
| Yellow ↑ | CAP is effective | Ready for Restart |
| Yellow ↑ | ECP is effective | Ready for Restart |
| Yellow → | Able to deal with HIR&D | Ready for Restart |



# OVERSIGHT OF MILLSTONE WORK ENVIRONMENT

**Little Harbor Consultants**

**Presentation to**

**NRC Commissioners**

**May 1, 1998**

## LHC SAFETY CONSCIOUS WORK ENVIRONMENT ATTRIBUTE STATUS

| Green | Green | Green | Green | Green |
|---|---|---|---|---|
| 12/12/97 | 1/27/98 | 2/19/98 | 3/3/98 | 4/7/98 |

**LHC Expectation 1**

**Senior management endorses a policy that places priority on nuclear safety, supports the workers' rights to raise safety issues and ensures that workers will not be subjected to harassment, discrimination or intimidation if they do so.**



## LHC SAFETY CONSCIOUS WORK ENVIRONMENT ATTRIBUTE STATUS

| Yellow → | Yellow → | Yellow → | Yellow ↑ | Yellow ↑ |
|---|---|---|---|---|
| 12/12/97 | 1/27/98 | 2/19/98 | 3/3/98 | 4/7/98 |

**LHC Expectation 2**

**Employee perceptions of the policy and its implementation are favorable.**

## LHC SAFETY CONSCIOUS WORK ENVIRONMENT ATTRIBUTE STATUS

| 12/12/97 | 1/27/98 | 2/19/98 | 3/3/98 | 4/7/98 |
|---|---|---|---|---|
| Yellow ↑ | Yellow ↑ | Yellow ↑ | Yellow → | Yellow → |

**LHC Expectation 3**

**Senior management provides training to all managers and supervisors to ensure that they understand and employ good management practices when dealing with employees who have safety concerns and do so with understanding.**



## LHC SAFETY CONSCIOUS WORK ENVIRONMENT ATTRIBUTE STATUS

| 12/12/97 | 1/27/98 | 2/19/98 | 3/3/98 | 4/7/98 |
|---|---|---|---|---|
| Yellow → | Yellow → | Yellow → | Yellow → | Yellow → |

**LHC Expectation 4**

**Members of the workforce have a sense of identity and are committed to the publicly stated goals and objectives of the organization, have respect for each other, communicate effectively both horizontally and vertically, and feel responsible for their own behavior.**

## LHC SAFETY CONSCIOUS WORK ENVIRONMENT ATTRIBUTE STATUS

| 12/12/97 | 1/27/98 | 2/19/98 | 3/3/98 | 4/7/98 |
|---|---|---|---|---|
| Yellow → | Yellow → | Yellow → | Yellow → | Yellow → |

**LHC Expectation 5**

**People at all levels of the organization treat each other with mutual respect.**



## LHC SAFETY CONSCIOUS WORK ENVIRONMENT ATTRIBUTE STATUS

| 12/12/97 | 1/27/98 | 2/19/98 | 3/3/98 | 4/7/98 |
|---|---|---|---|---|
| + Yellow → | + Yellow → | + Yellow → | + Yellow → | + Yellow → |

**LHC Expectation 6**

**Employees exhibit a "questioning attitude" toward work and the work environment with respect to nuclear safety.**

## LHC SAFETY CONSCIOUS WORK ENVIRONMENT ATTRIBUTE STATUS

| 12/12/97 | 1/27/98 | 2/19/98 | 3/3/98 | 4/7/98 |
|---|---|---|---|---|
| – → Yellow | – → Yellow | → Yellow | + ↑ Yellow | + ↑ Yellow |

**LHC Expectation 7**

**Positive recognition is given to employees who identify safety issues.**



## LHC SAFETY CONSCIOUS WORK ENVIRONMENT ATTRIBUTE STATUS

| 12/12/97 | 1/27/98 | 2/19/98 | 3/3/98 | 4/7/98 |
|---|---|---|---|---|
| Red | Red ↑ | Red ↑ | – ↑ Yellow | → Yellow |

**LHC Expectation 8**

**Incidents leading to allegations of harassment, intimidation, retaliation or discrimination rarely occur, and management is timely and effective in taking action for resolution and prevention.**

## LHC SAFETY CONSCIOUS WORK ENVIRONMENT ATTRIBUTE STATUS

| Red | Yellow | Yellow | Yellow | Yellow |
|---|---|---|---|---|
| 12/12/97 | 1/27/98 | 2/19/98 | 3/3/98 | 4/7/98 |

**LHC Expectation 9**

**There is no evidence that an atmosphere exists that has a "chilling effect" on the willingness of employees to report safety issues.**



## LHC SAFETY CONSCIOUS WORK ENVIRONMENT ATTRIBUTE STATUS

| Yellow | Yellow | Yellow | Yellow | Yellow |
|---|---|---|---|---|
| 12/12/97 | 1/27/98 | 2/19/98 | 3/3/98 | 4/7/98 |

**LHC Expectation 10**

**An effective and efficient corrective action program is functioning and all employees recognize the normal (and preferred method) for addressing safety issues is through the line organization.**

## LHC SAFETY CONSCIOUS WORK ENVIRONMENT ATTRIBUTE STATUS

| 12/12/97 | 1/27/98 | 2/19/98 | 3/3/98 | 4/7/98 |
|---|---|---|---|---|
| Yellow | Yellow | Yellow | Yellow | Yellow |

**LHC Expectation 11**

**Senior management recognizes that some concerns may not be addressed through the normal line organization and has established an [effective] Employee Concerns Program (ECP) for handling such concerns.**



## LHC SAFETY CONSCIOUS WORK ENVIRONMENT ATTRIBUTE STATUS

| 12/12/97 | 1/27/98 | 2/19/98 | 3/3/98 | 4/7/98 |
|---|---|---|---|---|
| Yellow | Yellow | Yellow | Yellow | Yellow |

**LHC Expectation 12**

**Independent and self-assessments are performed periodically to monitor performance and correct identified deficiencies.**

## LHC ATTRIBUTES CONTRIBUTING TO NNECo SUCCESS CRITERIA 1

**Demonstrate the willingness to raise concerns.**

2. Employee perception of SCWE... Yellow↑
6. Employees exhibit a questioning attitude... +Yellow→
7. Positive recognition is given to employees... +Yellow↑
9. No evidence of "chilling effect"... Yellow↑
12. Independent and self-assessments are performed... Yellow↑



## LHC ATTRIBUTES CONTRIBUTING TO NNECo SUCCESS CRITERIA 4

**Demonstrate that management can recognize and ... deal with ... HIR&D.**

3. Senior management provides training to all managers ... Yellow→
4. Members of the workforce have a sense of identity and are committed to the ...goals ... Yellow→
5. People ... treat each other with mutual respect. Yellow→
8. Incidents leading to allegations of HIR&D...rarely occur... Yellow→
9. There is no evidence that an atmosphere exists that has a "chilling effect." Yellow↑

# TOWN OF

# WATERFORD

**Presentation to the Nuclear Regulatory Commission**
**May 1, 1998**

**Thomas A. Sheridan**
**First Selectman**
**Waterford, CT.**

I appreciate this opportunity to address the NRC and others present on this important issue. Millstone Station, with its more than 2,000 employees, is an important part of the Town of Waterford, and its safe operation is crucial to the economic and environmental well-being of our community, to the State of Connecticut, and indeed to the future of the nuclear industry.

The last two years have been a painful experience for not only the station workers, but for the community as well. We have seen an erosion in what had been a good relationship between the station management and the community. Public confidence in the ability of Northeast Utilities to operate the Millstone plants was seriously damaged during this time. I believe, however, that several positive changes have resulted from this ordeal

Much has been learned by the company, the community, and the NRC. .

First, and most important, historical deficiencies in the way Northeast Utilities has done business at Millstone have been changed for the better. The new leadership team is managing the station to very high standards, and I am both hopeful and confident that Millstone will once again become an industry leader.

Second, in speaking with employees on site, as well as the many Millstone employees who live, work and volunteer in town government, I now have confidence that the work environment at the plants has significantly improved over the past several months. Workers are encouraged to bring forth issues to be resolved and are acknowledged and respected for doing so. This speaks well for the future of the site, and I believe this positive organizational climate will continue to be supported by management.

I also believe that the democratic process worked well here. Two years ago, there was a great deal of anger and emotion in the community about the unfolding situation at Millstone. As a result of over one hundred public meetings over the past two years, our community is much better informed about the complexities of nuclear plant operations. As we move toward the future, we will do so as a more informed, more aware community.

I commend the members of the various public groups and company employees who have been involved in this process, because they have raised very legitimate issues. I commend the NRC staff for allowing these concerns to be discussed openly in an inclusive public process. These meetings, I believe, have provided everyone with the opportunity to be heard. It is my hope that the public citizens groups will continue to stay involved in the process to help insure the safe operation of the plants and that they will gain confidence in the plants' operations. Some may never get that confidence, but their participation is still an important part of the process.

I want to publicly thank the new management and all Millstone employees for their efforts and their part in the process of developing the new work environment at the plants. The thousands of employees at the site have put in countless hours, at great sacrifice to themselves and their families. I know how hard they worked on that effort. I am confident that the plants will be operated safely in the future.

And I commend the Commission for their willingness to include the various public interest groups in this meeting today. I also appreciate being included myself, as the First Selectman for the host town of Waterford.

Now, I believe, is the time to get on with the process of safe operations at Millstone 3. Millstone has historically been a good neighbor. Millstone's new management is determined to restore that status. I ask that you authorize the restart of Millstone 3, so that we can begin to put this painful chapter behind us.

# NUCLEAR ENERGY

# ADVISORY COUNCIL

WRITTEN STATEMENT OF JOHN MARKOWICZ, VICE-CHAIRMAN.
STATE OF CONNECTICUT
NUCLEAR ENERGY ADVISORY COUNCIL (NEAC)

Chairman Jackson and NRC Commissioners. Thank you for this opportunity to participate in this public briefing on selected issues related to the proposed restart of Millstone Unit 3.

My name is John Markowicz. I am a citizen of Waterford, CT, and Vice Chairman of the State of Connecticut Nuclear Energy Advisory Council (NEAC). With my family, I have resided for the past twenty-one years within two miles of the Millstone Nuclear Power Station. Prior to that, and for more than eleven years, I served on active duty as a nuclear trained commissioned officer in the United States Navy, including a tour as Chief Engineer of a fast attack nuclear submarine. I have never been employed by a commercial nuclear utility. As a local civic leader and businessman, I was nominated by the First Selectman of Waterford to serve as a volunteer on NEAC nearly two years ago.

NEAC was established by the Connecticut Legislature in Section 17 of Public Act 96-245. Our membership consists of fourteen uncompensated appointees from varied backgrounds and perspectives to provide diversity, balance, and credibility. We receive clerical support from the Department of Environmental Protection, and have been appropriated $15,000/year for travel funds in Fiscal Years 1998 and 1999. Four of us have signed Communications Protocols with the NRC. We have been charged by the Legislature to:

1. Hold regular public meetings to discuss safety and operation of Connecticut nuclear plants, and advise the governor, legislature and municipalities within a five-mile radius of the plants.
2. Work with federal, state, and local governments and companies operating the facilities to ensure public health and safety.
3. Discuss proposed changes and problems arising from the operation of nuclear power generating facilities.
4. Communicate, through written reports and presentations, with nuclear plant operators about safety and operational concerns.
5. Review the current status of facilities with the Nuclear Regulatory Commission.

Pursuant to this charter, NEAC has regularly held monthly public meetings in Waterford, East Lyme, Haddam, and Hartford since the first meeting on August 1, 1996. At least one or more members of NEAC have monitored or observed more than one hundred other meetings, nearly all of which have been publicly noticed. This includes: twenty-one NRC public meetings, approximately seventy meetings between the NRC, Northeast Utilities (NU), and/or a Third Party Contractor (i.e., Sargent & Lundy, Parsons Power, or Little Harbor Consultants), and at least ten NU public meetings or senior management training sessions. In addition and in accordance with the Communications Protocols noted earlier, telephone conferences between the NRC, NU, and Third Party Contractors have been routinely monitored by two NEAC members when possible. Site visits, plant tours, and periodic monitor observations have also occurred on several occasions at Millstone and Connecticut Yankee. With this year's appropriation of travel funding, NEAC members have also monitored Corrective Action Verification Program activities on multiple occasions at Sargent & Lundy, Chicago, IL and Parsons Power, Reading, PA.

As required by Public Act 96-245, NEAC has prepared and submitted Annual Reports for 1996 and 1997 to the Governor and Legislature. Copies of these two documents have also been distributed to the Nuclear Regulatory Commission. As documented therein, extensive correspondence has also been generated to federal and state officials. This has included a number of letters to the Nuclear Regulatory Commission.

With this information as background, I would like to share with you the following observations from more than twenty-two months of monitoring the Millstone Unit 3 Restart process:

1. Public Participation. There have been significant efforts on the part of all parties to this process to solicit and receive public input. Noticed meetings by the NRC have provided numerous opportunities for members of the public to observe and/or speak on all Millstone Restart issues. Demonstrating similar openness, the utility, NU, has sponsored open meetings in Waterford and Haddam, invited the public to normally closed officers' meetings, and has solicited comments via a local advisory council/committee at both locations. The Citizens Regulatory Commission (CRC) has also hosted a weekly, one hour, telephone call-in program on cable access television to voice its concerns and take citizen input.

Though the gap has narrowed, it would be inaccurate to assert that a uniform public consensus has emerged from these discussions, as I am sure you will conclude from the presentations you will receive today from all Public Interest Groups. However, it has been and I hope will continue to be a remarkably open process. Thousands of hours of effort by your staff, the utility, and the public have been focused upon health and safety concerns associated with the contemplated Millstone Unit 3 Restart. NEAC appreciates the measures taken by the NRC to foster this level of public participation. In this regard, I would like to mention the time and effort of NRC staff personnel in hosting local public meetings. Open meetings in New England can be a unique experience and a test of the sponsor's tact, diplomacy and restraint. The monthly, five-hour evening public meetings have provided your staff, particularly the Special Projects Office, excellent opportunities to demonstrate these skills. They have certainly earned my respect and admiration.

2. Millstone Employee Concerns Program (ECP) and Safety Conscious Work Environment (SCWE). This has recuringly appeared to be the most challenging aspect of the Restart Process, in part because it is difficult to quantify and evaluate. It has been likened by one NEAC member as trying to get one's hands around smoke. Most significantly, NEAC has observed that a comprehensive change in the Millstone work culture was a fundamental prerequisite to restart certification. While we fully supported the NRC Order establishing Third Party Oversight in this area, we raised questions regarding your "Independence" criteria and the membership of the Little Harbor Consultant (LHC) team. Having now observed the implementation of this order for nearly sixteen months, it appears that LHC has credibly implemented the letter and spirit of the Order. Their comprehensive plan and common sense approach to grading attributes provided quantitative criteria for understanding and evaluating progress by NU in this critical area. It was and is essential for LHC to maintain lines of communication with NU employees to implement the NRC Order, though some in the public have recently challenged the degree of interaction that has resulted. NEAC has observed that LHC, NU and the NRC have demonstrated a reasonable, best effort to achieve and maintain

"arms length" Third Party Oversight. Furthermore, the trends reported to the public by NU and the LHC on April 7, 1998 are believable and suggest the work place culture at Millstone has improved. We also observe that this condition is fragile and requires continued NU management attention and LHC "arms length" monitoring, at least until the number of Employee Concerns and NRC allegations have been reduced to the industry averages for "Best Run" nuclear power plants.

3. Deferred Items Management/Corrective Actions. The nature, challenges, and solutions to deferred items management have been more understandable than the ECP/SCWE. The magnitude of this situation has been of particular concern with eighty-eight risk and/or safety significant systems at Millstone Unit 3. Most troubling, as well, was the erosion of public confidence in the ability of the NRC to monitor and enforce corrective action standards. Though challenging the "Independence" criteria for selection of Third Party Contractors to implement a Corrective Action Verification Program (CAVP), NEAC supported the goals and objectives of this NRC Order. Additional confidence in this process was established when NEAC was allowed to develop and implement a random process for selecting CAVP systems, and the NRC defined four understandable levels for publicly grouping and disseminating Discrepancy Reports (DRs) produced by the CAVP contractor. Pursuant to the aforementioned Communications Protocols, NEAC members have monitored telephone conferences and working meetings (public and closed) between the NRC, NU, and the Third Party contractor, Sargent & Lundy. NEAC is satisfied that an "arms length" relationship has been achieved and maintained, and that the work product from Sargent and Lundy is credible. The number of deferred items remains a concern, particularly in view of the number of Level 4 DRs that have emerged from the CAVP. The docketed commitment by NU on March 9, 1998 (NO. 50-336, 50-423, B17084) regarding final corrective action on deferred Level 4 DRs prior to completion of the next refueling outage is positively noted by NEAC. In so far as practicable, this should be the standard goal for all current deferred items. In addition, NEAC considers the prompt and comprehensive implementation of PASSPORT as essential for NU to establish "world class" deferred items management control.

4. Management Oversight/Quality Assurance. Many of the observations noted in the proceeding two paragraphs have management oversight and quality assurance implications. Specific observations of Oversight have been by the very nature of the function rather limited. Certainly the small number of Level 3 DRs resulting from the CAVP reflect upon the validity of Oversight's certification process. The results of on-going NRC inspections will add to this database. The public and press have recently challenged the role of Oversight in the Recirculation Spray System (RSS) liner failure event. NEAC monitored the April 7, 1998 RSS failure meeting with the NRC, NU, and Sargent & Lundy, and observed that Oversight appeared to properly execute its responsibility in this situation.

In summary, I offer the following observations as a member of NEAC:

1. The two NRC Orders applicable to Millstone Unit 3 have established credible, "arms length" processes for evaluating the progress of NU in establishing an employee concerns program, safety conscious work environment and deferred items management control.

2. Northeast Utilities has demonstrated steady, measurable improvement as documented in Third Party Contractors' reports and public presentations.

3. Processes and procedures established and maintained by the NRC for oversight at Millstone should continue beyond restart and until measurable standards have been achieved and maintained by NU. Sustained public confidence in the safe operation of Millstone has not been completely established.

Subject to your questions, this completes my prepared remarks.

Very respectfully submitted,

John Markowicz

# CITIZENS REGULATORY

# COMMISSION (CRC)

Citizens Regulatory Commission
180 great Neck Road
Waterford, Connecticut 06385
860-444-0113
860-443-1608 Fax

## ABOUT THE CRC

In the past 15 months the CRC has listened to almost every Whistleblower at Millstone.

The CRC has listened to the NRC during that same period of time.

The CRC has listened to Northeast Utilities during that same period.

The CRC has been represented at every meeting involving NU/NRC.

The CRC has communicated with NRC Chairman Dr. Shirley A. Jackson, The NRC Office of the Secretary, NRC Region 1, and the NRC Office of Inspector General on numerous occasions.

The CRC has been in contact with local, state, and federal legislators asking for their input as well as imploring them to act on behalf of the local communities.

The CRC has petitioned on three different occasions.

The CRC has written to the White House, and established communications with Presidential Appointee William Curry. The CRC has met directly with Mr. Curry to enlist presidential assistance.

The CRC has followed newspaper and media stories relating to Millstone, CY, NU, and the NRC on a daily basis. The articles have been voluminous, some 200 to date.

The CRC has participated in the media process by offering the opinion and consensus of our group through editorial letters, television news appearances, and talk show commentary.

The CRC has read and discussed many NRC reports regarding the performance of NU at the Millstone Station.

The CRC has educated itself by reading books on nuclear issues, watching videos, and reading magazine articles.

The CRC has further enhanced it's understanding of Millstone and CY by consulting the Local Public Document Room for related licensee documentation.

The CRC has established a local public television show through the public access channel to keep the public abreast of nuclear safety issues. The NRC and NU have been invited to attend.

The CRC has gathered information from people in the community who have worked at Millstone and CY. The CRC has become an information clearing house.

The CRC has hosted many public meetings whose topics include : Spent Fuel Pool issues as raised by Mr. George Galatis, Millstone 1 license documentation, Whistleblower phenomenon at Millstone, High Level Waste and Management Technology, Health Effects of Low Level Radiation, and Operating Nuclear Power Plant Evacuation Plan.

The CRC has provided testimony to the Connecticut State Senate Energy and Technology Committee regarding protection of Whistleblowers, and the formation of NEAC.

In short, the CRC through 15 months of exhaustive dedication to these issues, has become a <u>resource for the community.</u> We have also become the <u>memory of the community.</u>

# Citizens' Regulatory Commission
# Mission Statement

*The Citizens' Regulatory Commission is a group of citizens from southeastern Connecticut who are concerned with the safety of nuclear power plants. They believe that the Nuclear Regulatory Commission has become too close and cooperative with the nuclear power industry.*

*The CRC is especially concerned with Northeast Utilities and the Millstone Nuclear Power Station. The NRC is seen as failing to fulfill its lawfully appointed duty to regulate that company and its nuclear power plants.*

*The CRTC has as its primary mission to protect all forms of life from the dangers of poorly run and inadequately regulated nuclear power stations. Some of the ways in which the CRC tries to accomplish that mission include the following:*

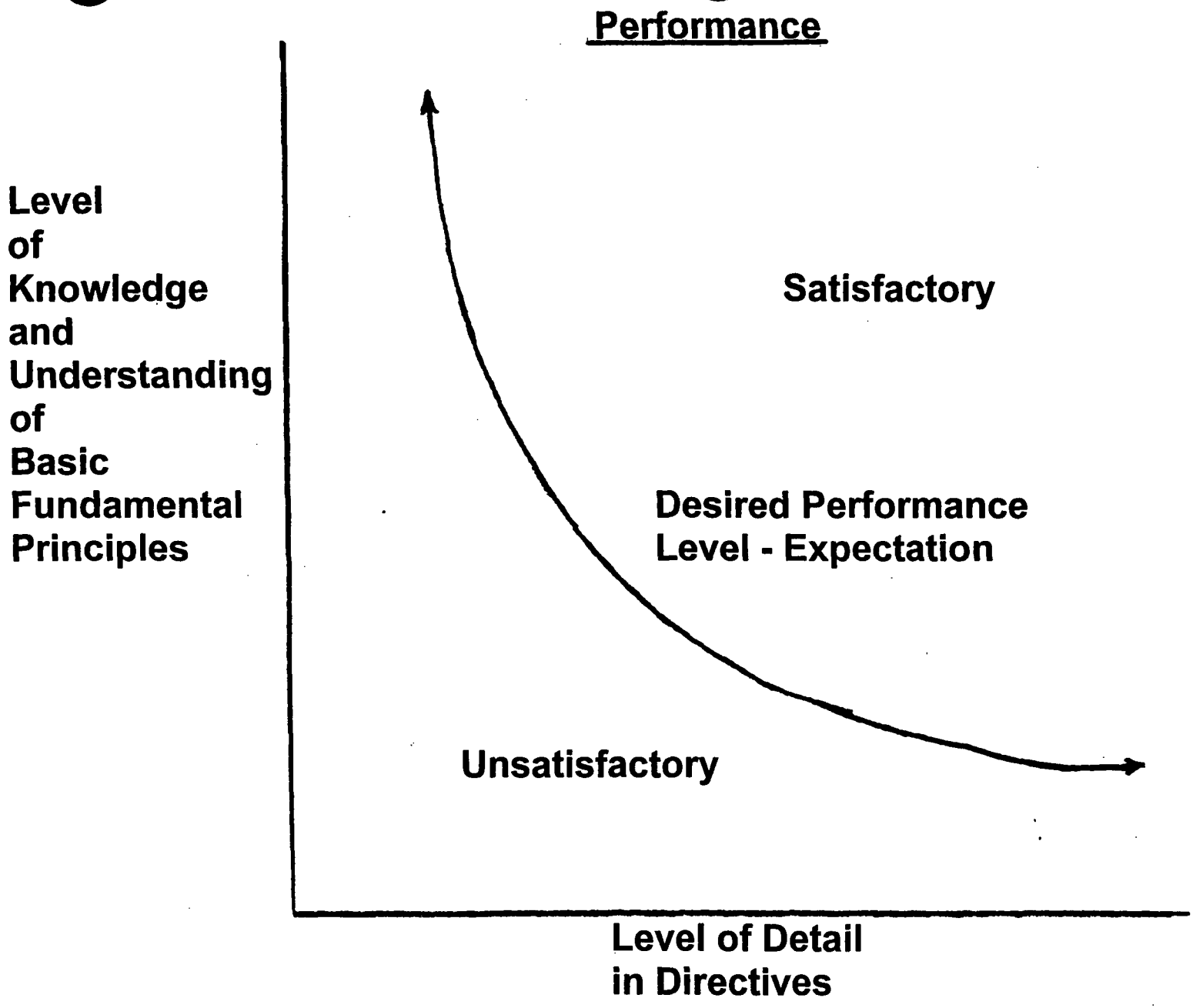
1. *To inform the public, through a series of open meetings and discussions, as to what is actually occurring in the nuclear power industry in the areas of licensing agreements, compliance with operating procedures, nuclear waste disposal, and associated health and safety issues.*

2. *To pressure elected officials to hold congressional hearings to examine the NRC's poor record of enforcing regulations and identifying violations of licensing, procedural and safety requirements.*

3. *To demand that the nuclear power industry be made truly accountable, through stricter penalties and corporate response, for licensing, procedural and safety violations, without penalty to the rate-payer.*

4. *To insist that the NRC protect and encourage utility employees who come forward with information relating to non-compliance with licensing, procedural and safety requirements.*

*The CRC does not hold a pro-nuclear or anti-nuclear position. Advocates of both positions are active in the organization. They are united, however, in their opinion that all NRC regulations should be followed, that violators should be appropriately penalized, that employees who report problems should be protected from harassment, and that the NRC should be independent from the nuclear industry and should be open, honest and forthcoming with the public.*


Performance
Level of Knowledge and Understanding of Basic Fundamental Principles
Satisfactory
Desired Performance Level - Expectation
Unsatisfactory
Level of Detail in Directives

MARCH 10, 1998 incident

```
+-------------------------------+          +---------------------+

|POWER REACTOR                 |          |EVENT NUMBER: 33872  |

+-------------------------------+          +---------------------+

+---------------------------------------------+-------------------------
---+
|FACILITY: MILLSTONE              REGION: 1 |NOTIFICATION DATE:
03/10/98 |
|UNIT:    [ ] [ ] [3]            STATE: CT |NOTIFICATION TIME: 16:28
[ET]|
|RX TYPE: [1] GE-3,[2] CE,[3] W-4-LP        |EVENT DATE:
03/10/98 |
+---------------------------------------------+EVENT TIME:
16:00[EST]|
|NRC NOTIFIED BY: BILL HOFFNER              |LAST UPDATE DATE:
03/10/98 |
|HQ OPS OFFICER:  DICK JOLLIFFE
+---------------------------+
+---------------------------------------------+      NOTIFICATIONS
  |
|EMERGENCY CLASS: NOT APPLICABLE
+---------------------------+
|10 CFR SECTION:                      |RICHARD CONTE       RDO
  |
|APRE 50.72(b)(2)(vi)    OFFSITE NOTIFICATION  |
  |
|                              |FEMA, DOE, DOE       FAX
  |
|                              |HHS, EPA, DOT/NRC    FAX
  |
|                             |
  |
|                             |
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+-----+----------+-------+-------+-------------+--+-------+-------------
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|UNIT |SCRAM CODE|RX CRIT|INIT PWR| INIT RX MODE  |CURR PWR| CURR RX
MODE  |
+-----+----------+-------+-------+---------------+-------+-------------
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| | |
|
| | |
|
| 3 | N N 0 COLD SHUTDOWN | 0 COLD
SHUTDOWN |
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EVENT TEXT

+----------
---+
| -PUMP LUBE WATER DISCHARGED INTO NIANTIC BAY IN VIOLATION OF NPDES
PERMIT- |
|
|
| THE LICENSEE NOTIFIED THE CONNECTICUT STATE DEPARTMENT OF
ENVIRONMENTAL
|
| PROTECTION THAT UNIT 3 HAD DISCHARGED PUMP LUBRICATING WATER INTO
THE
|
| NIANTIC BAY VIA A DISCHARGE PATH THAT WAS NOT IN COMPLIANCE WITH THE
|
| NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT
|
| REQUIREMENTS.
|
|
|
| THE LICENSEE INFORMED THE NRC RESIDENT INSPECTOR.
|
+----------
---+

NANCY BURTON
ATTORNEY AT LAW
147 CROSS HIGHWAY
REDDING RIDGE, CONNECTICUT 06876

TELEPHONE (203) 938-3952
FAX (203) 938-3168

April 23, 1998

Mr. William Hill
Nuclear Regulatory Commission
Washington, D.C. 20555-0001

Re: May 1, 1998 Millstone Unit 3 Meeting

Dear Mr. Hill:

In behalf of the Citizens Regulatory Commission (CRC), please be advised that CRC has accepted your invitation to make a presentation at the May 1, 1998 meeting.

I am enclosing a preliminary outline of the issues which CRC will plan to address. Please be assured that CRC is particularly interested in a complete airing of health and safety concerns.

Please be further advised that CRC respectfully takes exception to the 10-minute time limitation imposed. In light of the fact that CRC's membership includes families with young children living within the five-mile priority emergency evacuation zone of Millstone Nuclear Generating Station, I trust that the Commissioners will conduct the meeting and make time adjustments as appropriate.

Additional materials will be submitted by CRC under separate cover. Please call if you have any questions.

Sincerely,

Nancy Burton

Nancy Burton, Esq.

cc: Citizens Regulatory Commission
Via Fax 301-415-1672

# CITIZENS REGULATORY COMMISSION
# PRELIMINARY OUTLINE OF ISSUES
# FOR PRESENTATION TO
# NUCLEAR REGULATORY COMMISSION
# MAY 1, 1998

(1) Leadership at Millstone Station

(2) Employee Concxerns Program Issues
- -- Accountability
- -- LHC Influence

(3) Safety Conscious Work Environment at Millstone
- -- DEP Violations
- -- Radiological Control

(4) Deferred Items Management Issues
- -- Quantity and Significance
- -- Work Off Plan
- -- Corrective Action Implementation

(5) Management Oversight and Quality Assurance Issues
- -- Personnel Turnover Rates
- -- Early Problem Identification
- -- Repetitive Problem Occurrence

(6) Health and Safety
- -- Worker Safety
- -- DEP Violations
- -- Emergency Planning Issues
- -- Radiological Control

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# CONCERNED

# SCIENTISTS

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SCIENTISTS

# Comments on Selected Issues Related to Restart of Millstone Unit 3


**David Lochbaum**

**Nuclear Safety Engineer**

**dlochbaum@ucsusa.org**


**May 1, 1998**

**NRC Commission Briefing**

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# Scope

- Employee Concerns Program
- Safety Conscious Work Environment
- Deferred Items Management
- Management Oversight and Quality Assurance

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# Employee Concerns Program

- No reason to doubt LHC's conclusion that improvements at Millstone support restart
- Reason to believe that LHC serves as "training wheels" for ECP
- Unit 3 restart provides opportunities to stress ECP
- Nice to know if ECP can survive without its "training wheels," but best to defer going "solo" until after restart

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# Safety Conscious Work Environment

- No reason to doubt LHC's conclusion that improvements at Millstone support restart

- No reason to believe that any employee with a safety concern will not raise it to line management, to ECP, to NRC, to media, or to local citizens

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# Deferred Items Management

- Approach for deferring items is consistent with industry practices and seems justified
- No reason to doubt that deferred items were improperly screened
- NU committed to work off deferred items in a timely manner
- Redirection of resources and management attention to Unit 2 restart effort coupled with emerging issues on Unit 3 may stress the deferred item closeout effort
- Millstone seems to have weak corrective action program now, which may only get worse under stress

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# Management Oversight and Quality Assurance

- RSS orifice modification provides ample reason to suspect effectiveness of management oversight and quality assurance at Millstone
- Despite considerable progress, it seems NU can still place schedule demands ahead of safety
- At some plants, including Grand Gulf, NRC required experienced SRO on each shift to mentor operating staff
- For Millstone 3, NRC should require round-the-clock NRC inspector presence or independent management mentor, perhaps both
- Objective - guardian against schedule over safety calls

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# Summary and Recommendations

- ECP / SCWE condition seems to support restart
  - LHC should continue monitoring for at least a few months after restart for insurance
- Deferred items appear appropriate for restart
  - Due to Millstone's weak corrective action program, independent oversight should be required for at least a few months after restart for insurance
- Management oversight and quality assurance is questionable for restart
  - Round-the-clock NRC or mentor presence during and after restart would help guard against schedule over safety mistakes

# MILLSTONE AD-HOC

# EMPLOYEE GROUP

# Millstone Ad-Hoc Employee Group Presentation

NRC Commission Briefing
Rockville, Maryland
May 1, 1998

DATE: April 23, 1998

TO: Mr. William Hill
Nuclear Regulatory Commission
Washington, D.C 20555-0001

FROM: Ad-hoc Group of Millstone Station Workers

SUBJECT: NRC Commission Meeting May 1, 1998

This written statement is provided to the Commissioners of the NRC for consideration at their May 1, 1998 meeting concerning the restart of Millstone Unit 3. This statement is from an active group of Millstone workers who strongly believe in the safe operation of the Millstone Station. We came together as an ad-hoc group with the recognition that employees must maintain a strong commitment to safety and a responsibility for the health of our work environment.

The group itself consists of approximately 20 members with diverse backgrounds, including operators, maintenance workers, engineers, trainers, support staff, and contract employees. We feel that our input concerning the restart of Millstone Unit 3 is very important to your decision.

One of our first efforts was to develop the following statement of support regarding the Millstone station:

*"We, the undersigned workers at Millstone Station, pledge to you, our neighbors and public officials, that we can and will operate this station safely. We further want you to know that the management of Millstone Station treats us with respect and we are confident that any safety issue we find will be completely addressed in a timely manner."*

Within a period of 36 hours, we were able to collect 1553 signatures from Millstone employees. This statement, with attached signatures, was previously submitted to the NRC staff at a March 4, 1998 public meeting. Most recently, we sponsored a campaign to raise the $4,125 necessary to place a full page ad in the local newspaper on behalf of NU employees offering our pledge to the state, region and local communities to operate the Millstone units safely and expressing our confidence in Millstone leadership to effectively deal with safety concerns.

As members of this Ad-Hoc group, we have witnessed many changes at the Millstone Station. These changes, ranging from program and process improvements to changes in leadership and standards have resulted in a very different NU from the one that was placed on the NRC Watch List over two years ago. Some of the differences that we see on a daily basis include:

- Changes in leadership attitudes about the value and importance of employee contributions
- Improvements in the corrective action process that allow us not only to report problems, but to get them resolved
- An appreciation for differing opinions and positive recognition for those that raise safety issues and concerns
- A concerted effort by management to communicate in a timely manner with employees about both good news and bad
- Establishment of the Employee Concerns Oversight Panel and increased employee representation in the resolution of employee concerns issues
- A willingness on the part of management to apologize if they are wrong

We also see evidence that a Safety Conscious Work Environment is present at Millstone Station. We have been encouraged by the most recent Little Harbor Consultant briefing on April 7, 1998 which confirms that which we experience everyday. In addition, we as employees at Millstone Station believe that this environment is here to stay. During the past few years, the workers at Millstone Station have lived the change from a work environment where safety and respect for workers were not always present, to today, where personnel and plant safety are the top priority for everyone. We hear, believe, and live the message that our leadership has sent, - safety, quality and respect for all must be the values on which our future must be built.

Why is a Safety Conscious Work Environment here to stay? How can we be so certain that our current success will continue and grow even stronger? We can say this because a healthy environment is about us, it is us.

We are an energized, empowered work force which has experienced both a strong Safety Conscious Work Environment and a lack of the same. We know the effects of not having one. We also now know the power and the success associated with a strong Safety Conscious Work Environment and we will do our part to ensure that it remains that way. We know our power as employees, our value to our company, and our responsibilities when it comes to the safe operation of Millstone Station. This is our work environment, our nuclear power plants, our company, our community, and our lives. We pledge to maintain a strong Safety Conscious Work Environment because we know its importance more than anyone else possibly can.

We understand that, in arriving at a restart decision, the Commission needs to consider input from a variety of sources, and we believe that we are one of these sources. We appreciate this opportunity to communicate our firsthand knowledge of the status of the Millstone Safety Conscious Work Environment and employee activities to you. Members of our employee group are planning to attend the NRC meeting on May 1, 1998. We would welcome the opportunity to answer any questions that you may have.

Sincerely,


Joseph M. Amarello-Spokesperson
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Jerilyn M. Duefrene-Secretary
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Dona L. Harrington-Burns-Member
97 West Main Street #94
Niantic, CT 06357
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## Statement of Support Signed by 1553 Millstone and Contractor Employees:

**"We the undersigned workers at Millstone Station, pledge to you, our neighbors and public officials, that we can and will operate this station safely. We further want you to know that the management of the Millstone Station treats us with respect and that we are confident that any safety issue we find will be completely addressed in a timely manner."**

# Over a two day period last month, 1,553 people who work at

# Millstone Station

## signed the following pledge:

*We, the undersigned workers at Millstone Station, pledge to you, our neighbors and public officials, that we can and will operate this station safely. We further want you to know that the management of Millstone Station treats us with respect and we are confident that any safety issue we find will be completely addressed in a timely manner.*

We can prove ourselves to the
Nuclear Regulatory Commission through inspection.

## HOW CAN WE PROVE OURSELVES TO YOU?

Trust, once lost, is hard to regain.

We do want your trust back.

We are your neighbors.

We live in the same communities.

Tell us how you feel.

Ask us what we are doing to regain your trust.

Last, but certainly not least, we are giving you our pledge.

This message was conceived and paid for entirely by a grassroots group of employees at Millstone Station.
This ad does not purport to represent the entire work force, nor was Northeast Utilities consulted in any manner.

# NRC STAFF

# COMMISSION BRIEFING

## Millstone

May 1, 1998

# RESTART ASSESSMENT PLAN (MC 0350)

- Employee Concerns Program / SCWE
- Independent Corrective Action Verification Program (ICAVP)
- Significant Items List
- Licensing Issues
- Corrective Action Program
- Work Planning and Control
- Procedure Upgrade Program
- Oversight and Quality Assurance
- Operational Safety Team Inspection
- Enforcement
- Personnel Training/Performance

- Public , State (NEAC), Local, Congressional, other agencies input

# MILLSTONE SCWE AND ECP

NRC Millstone Independent Review Group Findings

NRC October 24, 1996 Order

- NNECO Submittal of Comprehensive Plan for NRC Review
- NNECO Submittal of Proposed Third-Party Organization for NRC Approval
- Third-Party Organization Submittal of Oversight Plan for NRC Approval
- Determination of Cessation of Third-Party Oversight

Restart Assessment Plan

- Determine that ECP/SCWE are Effective

# SPO ASSESSMENT APPROACH

- Evaluation of LHC Oversight Process and Activities
- Evaluation of NNECO ECP
- Evaluation of NNECO SCWE

# SPO ASSESSMENT ACTIVITIES

- Review and Comments on NNECO Comprehensive Plan
- Approval of Third-Party Oversight Organization
- Approval of Third-Party Oversight Plan
- Periodic NNECO, LHC, and NRC Working Meetings (Open to Public)
- On-site Monitoring of NNECO Activities and LHC Oversight
- NRC Team Evaluation of ECP and SCWE
- NRC Team Evaluation of LHC Oversight Activities
- Review of Performance Measures
- Assess Handling of Employee Issues in Corrective Action System
- Review/Track Personnel Action Cases

# SPO EVALUATION OF LHC OVERSIGHT PROCESSES AND ACTIVITIES

Millstone Safety Culture Assessments

- Conducted Structured Interviews
- Assessed NNECO Performance with Respect to Attributes of SCWE

Program Evaluations

- Reviewed Comprehensive Plan
- Reviewed Employee Concern Program
- Reviewed Corrective Action Program
- Conducted Independent Investigations

Communications and Reporting

# SPO EVALUATION OF NNECO's ECP

- ECP Organization
- ECP Training
- Concern Case Files
- Program Effectiveness Indicators
- ECP Organization Interfaces
- ECP Self Assessments

# SPO EVALUATION OF NNECO's SCWE PROGRAMS

- Staffing and Organization Support
- Identification and Action Plans for Focus Areas
- Training
- Response to Personnel Action Cases
- Executive Review Board
- Planning of SCWE Efforts Beyond Restart of Unit

# SPO CONCLUSIONS ON ECP AND SCWE

- Elements of October 24, 1996 Order Required for Restart Have Been Met
- LHC Oversight Processes and Activities Are Effective and Provide Valid Independent Assessment of Licensee Performance
- NNECO's ECP Significantly Improved and Operating Effectively
- Safety Culture (SCWE) at Millstone Station Improved
- SCWE and ECP Programs Adequate to Support Restart of Millstone Unit 3

# OVERSIGHT AND QUALITY ASSURANCE

Oversight - Activities performed by Quality Assurance Organization, Safety Committees, and Self-Assessments by Line Management

Background

- External/Internal Audits Judged Oversight Ineffective
- Limited Self-Assessments; Little Corrective Actions
- Safety Committees (PORC, SORC, ISEG, NSAB) Narrowly Focused

Root Cause

- Lack of Management Support and Leadership

# NRC STAFF ACTIVITIES

- Normal Inspection Activities
- Team Inspection IP 40500
- Operational Safety Team Inspection
- Special Inspections of Significant Items List
- Periodic NRC/NU Management Meetings

# OVERSIGHT EVALUATION

Nuclear Oversight Organization

- Management Support Evident
- Recovery Plan Almost Complete
- Effective Audits, Evaluations and Quality Control
- Demonstrated Problem Identification and Assurance of Corrective Actions

Safety Committees (PORC, SORC, ISEG, NSAB)

- Meet Technical Specifications
- Safety Focused
- Recommendations Managed

# OVERSIGHT EVALUATION

## Self-Assessment

- Formal Program (Expectations, Accountability, Ownership)
- Technical Adequacy Improved
- Problems Identified at Low Threshold
- Corrective Actions Addressed/Completed

# CONCLUSIONS

Oversight and Quality Assurance are Adequate to Support Restart and Continued Safe Operation

- Effective Nuclear Oversight Organization
- Adequate Performance by Safety Committees
- Effective Self-Assessments

# BACKLOG MANAGEMENT

## Historical Issue:

Weak programs to ensure that work activities, including corrective actions, are addressed in a timely and effective manner

## Restart Assessment Issue:

Have work items been appropriately classified as either required before restart or deferrable?

For deferrable items, is the licensee's plan to complete work appropriate?

# NRC STAFF ACTIVITIES

10 CFR 50.54(f) "Demand for Information"

- Items required before restart
- Items to be deferred
- Process and rationale for restart/deferred classification
- Actions to ensure operations meet license, regulations and UFSAR

# NRC STAFF ACTIVITIES

NRC Inspections

- Assessed licensee process/rationale for restart/deferred items
- Performed as licensee updates received (total of 4 inspections)
- Descriptions of all deferred work reviewed
- Some items reviewed in detail

# NRC STAFF ACTIVITIES

## NRC Review of NNECO Backlog Management Plan

- Characterization/breakdown of deferred work
- Functional requirements developed (detailed guidance prior to restart for addressing backlog)
- Targets and goals established by each work category
- Commitment for Quarterly Status Reports to NRC

# CONCLUSIONS

- NNECO determinations of restart/deferrable work are appropriate
- Backlog Management Plan provides appropriate process for timely closure of deferred items
- NNECO reporting commitment will provide for NRC staff assessment of progress
- Given historically weak programs, NRC staff will perform a team inspection (IP 40500) within next year

# PRINCIPAL REMAINING ACTIVITIES FOR MILLSTONE UNIT 3 RESTART ASSESSMENT

- Independent Corrective Action Verification Program
- Corrective Action Program
- Operational Safety Team Inspection
- Document/Discuss Remaining Restart Assessment Plan Items with Commission

# POLICY ISSUE
## (Information)

April 24, 1998 SECY-98-090

FOR: The Commissioners

FROM: L. Joseph Callan
Executive Director for Operations

SUBJECT: SELECTED ISSUES RELATED TO RECOVERY OF MILLSTONE NUCLEAR POWER STATION UNIT 3

PURPOSE:

To provide the Commission the staff's assessment of three issues related to the Restart Assessment Plan (RAP) for Millstone Unit 3. The staff has evaluated these issues to be acceptable to support restart of Unit 3. A summary discussion of these three issues is presented in this paper and a more detailed discussion is provided as attachments. The staff's evaluation of the remaining issues required for Unit 3 restart readiness assessment will be addressed in a forthcoming paper.

BACKGROUND:

On November 4, 1995, the licensee (Northeast Nuclear Energy Company (NNECO)) 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 in the refueling practices and operation of the spent fuel pool cooling systems. The violations involved inconsistencies with the Updated Final Safety Analysis Report (UFSAR). The NRC issued a letter to the licensee on December 13, 1995, requiring them to inform the NRC before restarting of Millstone Unit 1 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 50.54(f)), 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.

Contact:
William D. Travers, SPO/NRR
301-415-1200

SECY NOTE: TO BE MADE PUBLICLY AVAILABLE AT THE COMMISSION MEETING SCHEDULED FOR MAY 1, 1998

In January 1996, the NRC designated the three 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, declaring both trains of the high-pressure safety injection (HPSI) system inoperable because of a design issue (there was potential that the HPSI throttle valves could become plugged with debris in the sump recirculation mode). On March 30, 1996, the licensee shut down Millstone Unit 3 after finding 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, before restarting each unit, the licensee inform the NRC of the corrective actions taken regarding design configuration issues at Millstone Units 2 and 3.

In June 1996, the NRC designated the three 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 (Order) directing the licensee to contract with a third-party to implement an Independent Corrective Action Verification Program (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 a unit restarts, 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 restarting any Millstone unit, the licensee develops and submits 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, to provide a specific management focus on future NRC activities associated with the Millstone units. The SPO's responsibility for activities at Millstone includes all licensing and inspection activities required to support an NRC decision on restart of the Millstone units.

In SECY-97-003, "Millstone Restart Review Process," dated January 3, 1997, the staff described to the Commission processes and approaches that the NRC staff will use to oversee the corrective action programs at the three units of the Millstone Nuclear Power Station. The staff is applying the guidelines of NRC Manual Chapter (MC) 0350, "Staff Guidelines for Restart Approval," to the restart approvals for Millstone Units 1, 2, and 3.

On January 30, 1997, the staff and the licensee briefed the Commission on their respective activities at Millstone. Subsequently, on April 23, August 6, and December 12, 1997, and February 19, 1998, the staff, the licensee, and applicable independent organizations involved in Millstone oversight activities provided the Commission updates on these activities.

DISCUSSION:

At the most recent Commission meeting on Millstone status on February 19,1998, the Chairman provided issues for the staff to consider in preparation for upcoming Commission meetings. In its staff requirements memorandum (SRM) dated March 18, 1998, the Commission provided guidance to the staff on the information it needs to make a restart decision on Millstone Unit 3. In the SRM, the Commission directed the staff to provide crisp, clear analyses of the restart-related issues with recommendations (where appropriate) and a summary of independent NRC actions supporting staff decision-making on Millstone's restart. Three particular issues associated with restart readiness of Unit 3 discussed in the SRM are addressed in this paper (1) licensee progress to establish a safety-conscious work environment (SCWE) and an effective employee concerns program (ECP); (2) an assessment of licensee improvements to oversight and quality assurance; and (3) NRC staff plans for monitoring licensee resolution of nonrestart-related issues/items (i.e., backlog management). These are the three items the staff plans to address during the Commission meeting on May 1, 1998. Remaining issues identified in the staff's restart assessment plan (RAP) for Unit 3 and the March 18, 1998, SRM will be covered in a subsequent Commission paper that will be developed before a second Millstone Unit 3 Commission meeting.

The staff has identified in the Restart Assessment Plan (RAP) the issues, including those related to the two NRC Orders that require resolution before a unit restarts. Programmatic issues identified in the Unit 3 RAP include corrective action program improvements, work planning and control improvements, procedure upgrade programs, employee concerns program improvements, and oversight and quality assurance improvements. The RAP also includes staff activities to evaluate the completion of the ICAVP and the licensee's response to NRC's 10 CFR 50.54(f) letters regarding Millstone Units 1, 2, and 3. The actions listed in the generic Inspection Manual Chapter 0350 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 was completed on April 24, 1998, and for which a public exit is planned on May 5, 1998. As noted above, for each of three issues, the staff is prepared to provide its overall assessment related to restart readiness for Unit 3. Executive summaries follow that support the staff's conclusions related to each of these areas. More detailed analyses of the licensee's and the NRC's activities to address each of these issues are contained in Attachment 1 (ECP and SCWE), Attachment 2 (oversight and quality assurance), and Attachment 3 (backlog management).

(1) Employee Concerns Program and Safety Conscious Work Environment

NRC assessments and NNECO self-assessments identified the failure of past management processes and procedures to effectively handle safety issues raised by its employees. Concerns were also raised about the manner in which the licensee treated employees who brought safety and other concerns to the attention of management. In

its September 1996, report, "Millstone Independent Review Group Regarding Millstone Station and NRC Handling of Employee Concerns and Allegations," the NRC staff determined that, in general, an unhealthy work environment, which did not tolerate dissenting views, and did not welcome or promote a questioning attitude, has existed at Millstone plants for the past several years. Because of these concerns, on October 24, 1996, the NRC issued an Order to NNECO requiring that it take specific actions to resolve problems in the process for handling employee safety concerns at the Millstone station.

As required by the Order, NNECO developed and implemented 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. NNECO's plan included elements to improve the operation of its Employee Concerns Program (ECP) organization, to enhance management and employee training related to establishing and maintaining a safety-conscious work environment (SCWE), to form an Employee Concerns Oversight Panel, and to identify and respond to organizational SCWE challenges. NNECO began implementation of the plan elements in February 1997, and substantially completed the program elements by January 1998. NNECO developed four restart success criteria and periodically provided assessments of its progress with respect to the criteria. In its March 31, 1998, letter, NNECO informed the NRC that substantial progress in implementing the comprehensive plan had been made and that the current safety-conscious work environment supports the restart of Millstone Unit 3.

NNECO also submitted for NRC approval the proposed independent third-party oversight program organization to oversee implementation of its comprehensive plan. On April 7, 1997, the NRC approved Little Harbor Consultants, Inc. (LHC), subject to final confirmation of financial independence, as the third-party organization. In May 1997, LHC developed, and submitted for NRC approval, its oversight plan detailing activities to oversee NNECO's implementation of its comprehensive plan. The LHC oversight plan includes activities for identifying the past and present safety culture at Millstone, evaluations of ECP and SCWE programs and processes, evaluation of program implementation, and measurement of program implementation. Using information developed from structured surveys of Millstone employees, program assessments, and monitoring of site activities, LHC developed a process to evaluate licensee performance, relative to 12 attributes it identified in its oversight plan that are usually present when a strong safety culture exists. LHC periodically evaluated NNECO's four success criteria based on these 12 attributes. LHC's latest evaluation, presented at the April 7, 1998, meeting, with NRC and NNECO, found the licensee's performance acceptable for restart with respect to the four criteria.

Regarding actions required by the Order, NRC staff reviewed and commented on the licensee's comprehensive plan, reviewed and approved the third-party organization that will oversee the comprehensive plan, and reviewed and approved the third-party organization oversight plan. NRC staff has assessed the effectiveness of NNECO's implementation of its programs for handling employee safety concerns, relying considerably on the findings of LHC oversight activities. The staff evaluated a sample of NNECO's programs and activities, and reviewed LHC oversight activities. Staff evaluation of NNECO's ECP and SCWE programs included (1) reviews of programs,

procedures, and data; (2) observation and monitoring of program activities; and (3) a team evaluation of NNECO's ECP and SCWE activities. Results of staff evaluations of NNECO programs were also used by the staff to assess the effectiveness of LHC activities. Periodic, joint meetings with NRC, LHC, and NNECO were held to discuss the status, issues, and actions regarding the SCWE and ECP.

Based on review of documentation, monitoring of LHC activities, and NRC team evaluations, NRC staff concludes that LHC has effectively carried out its oversight functions. LHC's structured interviews of the licensee's employees that were performed in the summer of 1997, and again in February 1998, were well planned and well documented. The survey findings contained detailed and relevant findings and recommendations. The structured interviews, along with input from site events and program reviews, have provided a well-founded framework and basis for LHC's assessment of the Millstone safety culture. Comparing LHC's findings with NRC's evaluation of NNECO's SCWE and ECP, LHC's programmatic observations and findings appear accurate and thorough in the identification of deficiencies and weaknesses. LHC was particularly thorough and detailed in its oversight efforts of licensee's activities to improve its ECP. The staff therefore has high confidence in the results and conclusions of LHC's assessment of licensee performance and program status.

The staff concludes, based on its reviews, evaluations, and consideration of the findings of LHC, that NNECO has met the restart requirements of NRC's October 24, 1996, Order. Additionally, the licensee's ECP and SCWE are well-established and functioning effectively at Millstone. Employee concerns are prioritized based on safety significance, identities are protected, case resolution is timely, and there is appropriate followup on corrective action adequacy. Further, significant improvements have been made in the training provided to employees and contractors regarding SCWE and the ECP. In addition NNECO has established effective supplemental measures (e.g., the Executive Review Board, Focus Area Plans, and Leadership Surveys) that provide enhanced assurance of providing and maintaining an SCWE. The staff also considers that NNECO has developed adequate plans, following restart of a unit, for monitoring the site's safety environment, addressing problems as they may arise, and applying necessary resources to support ECP and SCWE programs.

The staff notes that in accordance with the NRC's October 24, 1996, Order, the independent third-party oversight organization will continue at Millstone until the licensee demonstrates by its performance that the conditions which led to the requirement of that oversight have been corrected to the satisfaction of the NRC. As documented in the staff's ECP/SCWE plan, submitted in SECY-97-283, "Recovery of Millstone Nuclear Power Station," the staff anticipates that at least six months beyond restart will be required to evaluate the licensee's continuing performance in the ECP/SCWE areas.

(2) Oversight and Quality Assurance

Quality assurance and oversight is a restart issue due to past ineffective leadership, program implementation, management support, corrective actions and self-assessments, as identified by internal and external audits, including NRC inspections.

NNECO developed a broad-based corrective action program to address the deficiencies identified through internal and external assessments of Nuclear Oversight (NOS). Included among these actions were promulgating corporate expectations for NOS, reorganizing and staffing, establishing new hold point inspection procedures, improving communications between line organizations and NOS, improving the skills of NOS staff in performance-based assessment, and developing a process to assess key issues in the recovery process known as the Nuclear Oversight Restart Verification Plan (NORVP).

The NRC has closely monitored the progress being made in the NORVP and other associated areas. It also independently assessed selected attributes to ensure satisfactory completion of issues. NRC inspectors evaluated NOS effectiveness through the routine inspection program as well as the special inspections associated with the closure of items in the Restart Assessment Plan Significant Items List. An NRC team inspection examined the area of nuclear oversight using NRC Inspection Procedure 40500, "Effectiveness of Licensee Controls in Identifying, Resolving, and Preventing Problems," from February 9 through 20, 1998. The inspection covered several areas including the review of NOS, which is the NNECO quality assurance program required by 10 CFR 50, Appendix B. The team also examined the Technical Specification required Independent Safety Engineering Group (ISEG) and Nuclear Safety Assessment Board (NSAB) activities. Through NRC inspections, the staff confirmed that NNECO has established an effective self-assessment process that contains definitive management expectations regarding the need for performance improvement, an emphasis on self-assessment training, and enhanced procedural controls.

The NRC staff concludes that oversight is adequate to support the restart of Millstone Unit 3 based on (1) the reorganization and replacement of key managers within NNECO and specifically NOS; (2) the promulgation of improved management expectations; (3) the establishment of open communications between the line and NOS and within NOS; (4) the completion of staffing and improved quality and training of the NOS staff; (5) development of a viable inspection and audit program; (6) demonstrated improvements in NOS problem identification and assurance that corrective actions are implemented; (7) improved performance of quality control inspectors; (8) a credible performance by the safety committees; and (9) an effective self-assessment program.

(3) Backlog Management

Effectively managing backlogs contributes measurably to achieving effective work planning and controls and a functional corrective action program. These are areas in which the licensee had demonstrated weaknesses which resulted in the staff including them as key items in its Restart Assessment Plan. Backlog issues were also highlighted by the Commission as an area of concern during the February 19, 1998, Commission meeting and in its subsequent staff requirements memorandum of March 18, 1998.

On April 16, 1997, the NRC issued a letter to NU requesting information pursuant to 10 CFR 50.54(f) that superseded previous letters requesting information pursuant to 10 CFR 50.54(f). The April 16, 1997, letter requested the licensee to provide information related to the following four items (1) the significant items that needed to be

accomplished before restart; (2) the list of items to be deferred until after restart; (3) the process and rationale NU is using to defer items until after restart; and (4) a description of the actions taken to ensure that future operation of the unit(s) will be conducted in accordance with the license, regulations, and UFSAR.

In accordance with the requests contained in the 10 CFR 50.54(f) letter, the licensee has provided its response to all four items, the most recent being its response to item (4) submitted on March 31, 1998. The licensee provided its screening criteria to determine if an item was restart related or not based on 4 criteria. An item was classified as startup required if it was necessary to accomplish any one of the following (1) implement or support a change to plant technical specifications; (2) correct a licensing or design basis deficiency; (3) accomplish a restart license commitment, or (4) resolve an operability concern associated with a maintenance rule group 1 or 2 system. The licensee has also provided periodic updates to its deferred items list.

On March 31, 1998, NNECO provided the NRC its Backlog Management Plan as an integrated, structured approach to successfully manage and disposition the backlog of identified open items for Millstone Unit 3. In this plan, the licensee describes its methodology, process, goals, commitments, and performance indicators to effectively manage and trend performance related to backlogs. The licensee also noted that it had already completed a large percentage of the deferrable items as evidence of its intent to effectively address the backlog. As part of its assessment of the aggregate significance of the backlog, the licensee's PRA group performed a risk assessment of deferred assignments in its Action Item Tracking and Trending System (AITTS) and determined that there was no measurable impact on core damage frequency. Within its plan, the licensee describes its intent to disposition (complete, schedule, or eliminate) all the deferred work items that exist at the time of startup by the end of its next refueling outage (currently scheduled to take place approximately 10 months after restart of Unit 3). The licensee also commits to provide the NRC quarterly assessments of its performance related to the established goals for reducing the backlog.

The NRC has conducted four inspections to review the licensee's implementation of its criteria for determining whether items could be deferred, including at a minimum, reviewing the one-line description of each deferred item. During its first inspection, the NRC concluded that the criteria used by the licensee provided the necessary information requested in item (1) of the April 16, 1997, 10 CFR 50.54(f) letter. However, the staff questioned the completeness and accuracy of the deferred items list. NNECO implemented corrective actions, including increased management oversight and a specific validation and verification process which has resulted in improved performance. Subsequent inspections noted improved quality, though several deficiencies were noted by the staff which required corrective actions by the licensee. The staff determined that there would have been no substantive safety impact on plant operations if those items that had originally been classified as not required for restart had remained deferred until after startup. Given the conservative criteria for determining if an item can be deferred, the substantial progress made by the licensee in completing deferred items, and the relatively low number and safety significance of items found by the staff in its inspections that did not meet the deferral criteria, the staff has confidence that the cumulative safety significance of the body of deferred items is low and acceptable for restart.

The staff's review of the licensee's Backlog Management Plan indicates that although there are aspects of the plan that are being further refined and developed by the licensee, it is a plan that can be an effective management tool if properly implemented. Recognizing that implementation of past programs has been a chronic weakness of the licensee, within the next year the staff will conduct a team inspection using NRC Inspection Procedure 40500, "Effectiveness of Licensee Controls in Identifying, Resolving, and Preventing Problems." As part of this inspection, the team will assess the licensee's performance in managing its backlog. This will be in addition to the staff's quarterly review of the information provided by the licensee on its progress and performance in executing its Backlog Management Plan. The staff's overall assessment is that the plan is acceptable and can work if properly implemented.

CONCLUSION

The staff concludes that in the three areas discussed above, ECP/SCWE, Oversight and Quality Assurance, and Backlog Management, the licensee has made appropriate improvements and established adequate programs that would support restart of Unit 3. As noted earlier, another Commission paper will be developed prior to the next Commission meeting to discuss restart readiness of Unit 3 that will provide the staff's assessment of the remaining major issues contained in the Restart Assessment Plan and the March 18, 1998, SRM.

L. Joseph Callan
Executive Director
for Operations

Attachments:
1. Evaluation of Readiness of Northeast Nuclear Energy Company's Safety-Conscious Work Environment and Employee Concerns Program
2. Oversight and Quality Assurance
3. Backlog Management

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ATTACHMENT 1

# EVALUATION OF READINESS

# OF NORTHEAST NUCLEAR ENERGY COMPANY'S

# SAFETY-CONSCIOUS WORK ENVIRONMENT AND

# EMPLOYEE CONCERNS PROGRAM

# TO SUPPORT PLANT RESTART

Attachment 1

## TABLE OF CONTENTS

## I. INTRODUCTION

This report documents the status and results of NRC's assessment of Northeast Nuclear Energy Company's (NNECO) programs and activities to improve their programs and processes for handling safety issues raised by employees and for ensuring that employees who raise safety concerns are not discriminated against. Section II of the report provides background regarding identification of past failures in NNECO management processes for handling employee safety concerns, and NRC actions to ensure that the problem has been appropriately addressed. Section III describes licensee actions taken and programs implemented to improve the safety-conscious work environment (SCWE) at Millstone station. Section IV presents the activities of the independent third-party organization to provide oversight of NNECO's implementation of actions to upgrade their SCWE. Section V describes NRC's activities to independently assess NNECO's programs and the third-party's oversight of those programs and their implementation. Section VI presents staff assessment findings of NNECO programs and the oversight activities of the third-party organization. Section VII describes the restart readiness assessment findings of NNECO and the third-party organization, and Section VIII presents NRC's conclusion supporting a determination that NNECO's programs and processes are improved and support the restart of Millstone Unit 3.

## II. BACKGROUND

In late 1995, the NRC determined that since the late 1980's Millstone Nuclear Power Station had been the source of a large number of employee concerns and allegations related to safety of plant operations and harassment, intimidation, retaliation, and discrimination (HIRD) of employees. The NRC had conducted numerous inspections and investigations that had substantiated many of the concerns and allegations and had cited the licensee for violations. The NRC also had taken escalated enforcement action. Notwithstanding those actions, the licensee was not effective in handling many employee concerns or in implementing effective corrective action for problems that had been identified by concerned employees.

On December 12, 1995, the NRC established a Millstone Independent Review Group (MIRG) to conduct an evaluation of the history of the handling of employee concerns and allegations. The charter for the MIRG directed it to evaluate the licensee's effectiveness in addressing Millstone-related employee concerns and allegations. The MIRG was requested to identify root causes, common patterns between cases, and lessons learned and to recommend plant-specific and programmatic corrective actions.

The MIRG conducted a review of licensee allegation files, related inspection reports, NRC's Office of Investigation, and the Office of the Inspector General investigations, enforcement actions, U.S. Department of Labor actions, and previous NRC management reviews from 1985. The review included in depth case studies of selected employees' concerns and allegations to identify root causes, common patterns between cases, and lessons learned.

The MIRG concluded, in its September 1996, report, that in general, an unhealthy work environment, which did not tolerate dissenting views and did not welcome or promote a questioning attitude, had existed at Millstone for several years. This poor environment had resulted in repeated instances of discrimination and ineffective handling of employee concerns.

The MIRG identified seven, principal root causes for of the employee concern problems:

- Effective problem resolution and performance measures;
- Insensitivity to employee needs;
- Reluctance to admit mistakes;
- Inappropriate management style and support for concerned employees;
- Poor communications and teamwork;
- Lack of accountability;
- Ineffective Nuclear Safety Concerns Program (NSCP) implementation.

The MIRG also concluded that these root causes underscored a common theme of management failure to provide the dynamic and visible leadership needed to bring about required, basic attitude changes. None of the findings of the team were new. The problems identified had been identified previously to NNECO management by its own self-assessments, yet the same problems continued.

These problems had been recognized by NNECO management as early as August 12, 1991, when a Northeast Utilities Allegations Root Cause Task Group issued a report that highlighted the lack of respect and trust between employees and their management, and insufficient management sensitivity to routine employee concerns, as the causes. Furthermore, an organization contracted by NNECO issued a report on May 1, 1995, that revealed that the old culture of the 1980's had not been completely replaced by a culture encouraging the identification of problems and a questioning attitude. On January 29, 1996, NNECO issued a Millstone Employee Concerns Assessment Report that reiterated many of the same problems.

The report concluded that many of the problems still existed because the licensee had not implemented past recommendations in a coordinated and effective manner. There was a concurrent lack of commitment to and accountability in implementing corrective actions that resulted in a failure to proactively resolve emerging issues. This situation was compounded by the general failure of individual licensee managers to admit when they were wrong. All of those factors contributed to a strained and ineffective relationship between management and some employees. Finally, the report concluded that the effectiveness of the NSCP had been historically undermined by a lack of executive management support.

In May 1996, the nuclear committee of the licensee's Board of Trustees established a Nuclear Committee Advisory Team to evaluate the performance of the licensee's nuclear program. A Fundamental Cause Assessment Team (FCAT) was also formed to evaluate whether management actions were effectively addressing the causes of the declining performance. The FCAT identified the following fundamental causes of the decline in performance--

- top level of the licensee's management did not consistently exercise effective leadership and articulate and implement appropriate vision and direction;

- nuclear organization did not establish and maintain high standards and expectations;
- nuclear organization's leadership, management, and interpersonal skills were weak.

The FCAT report highlighted an "arrogant" management style which had further eroded Millstone employee trust and confidence and which had contributed to NNECO's repeated failure to correct clearly identified problems.

In light of the foregoing, the NRC concluded that the licensee needed to take action to correct and improve its handling of safety concerns raised by its employees so that concerns would be acted upon promptly and adequately and that employees who brought forth such concerns could do so without fear of retaliation. Therefore, the NRC issued an Order on October 24, 1996, requiring that, prior to resumption of power operations, the licensee was to --

(1) Develop and submit to the NRC, a comprehensive plan for reviewing and dispositioning safety issues raised by the licensee's employees, and ensuring that employees who raise safety concerns would not be subjected to discrimination. The plan had to address the root causes of past performance failures as described in the FCAT and MIRG reports.

(2) Retain an independent third-party, subject to the approval of the NRC, to oversee implementation of the comprehensive plan. The third-party organization chosen to oversee the conduct of the licensee's comprehensive plan had to be independent of the Licensee, such that none of its members had any direct, previous involvement with the activities at the Millstone station that the organization would be overseeing.

The Order specified that the independent third-party was to develop and submit for NRC approval an oversight plan to monitor and oversee the licensee's efforts to correct and prevent repetition of its past failures in its treatment of employee concerns and of those employees who raised such concerns.

Finally, the Order required that the plan for the independent third-party, oversight must continue to be implemented until the licensee demonstrated by its performance, that the conditions that led to the requirement of that oversight had been corrected to the satisfaction of the NRC.

## III. LICENSEE ECP and SCWE ACTIONS

In response to the Order, the licensee initiated several programs and actions to begin to correct the problems identified by the NRC and by its own staff. Some of the more significant actions are discussed below.

### A. SELECTION OF THIRD-PARTY OVERSIGHT ORGANIZATION

NNECO proposed Little Harbor Consultants, Incorporated (LHC), as the independent third-party, organization in letters dated December 23, 1996, January 14, 1997, and February 4, 1997. The NRC conditionally approved LHC as the third-party organization on April 7, 1997, subject to receipt of financial independence certification letters from NNECO and LHC. NNECO and LHC submitted the financial independence certification letters on April 25, 1997, and April 30, 1997, respectively. NRC, in its letter of August 19, 1997, formally approved LHC as the third-party contractor for Millstone station.

## B. NNECO COMPREHENSIVE PLAN

NNECO established a task force of volunteer employees, including representatives of exempt staff, non-exempt staff, contractors and union, to design and develop a comprehensive plan to address work environment and employee concern program changes. Two facilitators with extensive background in employee concerns were employed to assist the task force in developing the new program. While developing the plan, the task force actively solicited input from the Millstone employee population for consideration in the formulation and presentation of the comprehensive plan and the revised Employee Concerns Program (ECP).

The task force issued a report on January 22, 1997, containing its recommendations for the comprehensive plan. Among other things, it recommended the establishment of a new ECP and the creation of an Employee Concerns Oversight Panel.

NNECO submitted the initial comprehensive plan to the NRC in January 1997, and a revised comprehensive plan in August 1997. The comprehensive plan recommended by the task force consisted of six key elements:

- rebuilding employee, agency, and public trust
- training and orientation
- organizational, policy and procedure change recommendations
- employee concerns program
- Employee Concerns Oversight Panel
- performance action items

The performance action items consisted of a list of over 130 items in three phases (1) those items necessary to be completed prior to the effective date of the new ECP revision; (2) those items required during initial program implementation; and (3) those items necessary to be completed on an ongoing basis. The list of action items in the task force report were assigned to various organizational units at Millstone and correlated to the various root causes identified in the NRC Order.

## C. EMPLOYEE CONCERN PROGRAM (ECP)

The restructured ECP proposed by the employee concerns task force and established by NNECO had three fundamental steps: intake, triage, and investigation. The intake phase entails a process in which a trained interviewer receives the employee concerns and ensures that, with the concurrence of the concerned individual, it is accurately documented. Attempts are made to resolve the concern informally or through the normal channels or mediation with supervision while at the same time maintaining the confidentiality of the concerned individual, even if it is not requested.

If the issue cannot be resolved immediately, the concern goes to the Triage phase for evaluation and classification and recommend a resolution plan to the ECP Director. Finally, an investigation is conducted to determine whether or not the concern is substantiated. During the investigation, and at its conclusion, ECP maintains contact with the concerned individual as to its status.

NNECO began immediately to increase the number of people assigned to the ECP by hiring contractors who had significant experience dealing with ECP programs in other industries. Whereas, prior to the Order, there were only 3-4 full-time people assigned to the program, in April 1998, there were about 25. Many of the ECP staff are contractors, but NNECO is in the process of changing over to full-time NNECO employees.

## D. SAFETY-CONSCIOUS WORK ENVIRONMENT (SCWE)

SCWE applies to all the site activities to foster an environment where site employees feel comfortable raising any issues important to them without fear of retaliation or discrimination. To emphasize the SCWE, the President and Chief Executive Officer, Nuclear, issued Nuclear Group Policy 16, "Safety Conscious Work Environment" on August 7, 1997, that stated NNECO's policy with respect to this issue. It noted that all employees and contractors had a right to raise concerns, and could do so without fear of retaliation. It further noted that management had the responsibility to maintain that policy. In conjunction with the SCWE, NNECO published a list of 18 attributes that it believed made up a SCWE.

Before late summer 1997, there was no separate, formal organization known as SCWE. At that time, however, the Vice President of Operations was given the responsibility for SCWE and became its executive sponsor. An official organization was then formed reporting to him with a full time staff that included the ECP Director. The group has the responsibility for coordinating SCWE activities for NNECO. Currently, the group consists of about 15 persons with a SCWE Issue Manager, the Director of ECP, and the Director of Nuclear Human Resources(HR), all reporting to the Vice President of Human Services who reports to the Vice President of Operations. The Issue Manager organization is further broken down into Focus Area Resolution, Survey Coordination and Analysis, Training Coordination, and SCWE Communications and Comprehensive Plan.

## E. EMPLOYEE CONCERN OVERSIGHT PANEL (ECOP)

The ECOP, which reports to the President and CEO, Nuclear, of NNECO, is composed of Millstone employees whose function is to monitor the employee workplace environment and to provide independent oversight and assessment of the ECP. It also ensures that the action elements of the comprehensive plan are implemented and sustained. It is composed of about 16 volunteers from all parts of the Millstone organization who serve about a 16-month assignment. The Administrator is assigned to ECOP full-time.

### F. EXECUTIVE REVIEW BOARD (ERB)

The purpose of the ERB is to review any significant personnel action before such action is taken to ensure that it is proper and prudent, and not the result of HIRD. For NNECO employees and contractor personnel, significant personnel action includes a written reprimand, suspension, demotion, removal from duties, or termination. The ERB also reviews contractor reductions-in-force. This review can be by reviewing the specific list of people to be reduced, or the process used to determine the order of reductions. Excluded from this review are contractor releases specifically related to planned completion of a known scope of work or managed task. Background information describing the action being proposed is provided to the ERB, for its use in making a decision, by HR for NNECO employees and by the Contracts Group for contract employees.

## IV. THIRD-PARTY OVERSIGHT ORGANIZATION ACTIONS

As required by the Order, LHC submitted their proposed Oversight Plan to the NRC for review and approval on May 2, 1997, and Revision 1, to the plan on June 13, 1997. NRC concluded that LHC's Oversight Plan had the scope and depth necessary for judging the effectiveness of NNECO's program for resolving and disposing employee safety concerns and on July 14, 1997, approved the plan. The LHC Oversight Plan specifies three primary activities.

The first activity is assessing Millstone safety culture. The plan presents a list of 12 attributes that describe an "ideal" safety culture. LHC assessment approach includes gathering data through structured interviews, observations of daily site activities, and comparing these data with the 12 attributes of an "ideal" safety culture.

The second activity is conduct of programmatic evaluations to verify that programs being used to correct existing problems at the site and to prevent recurrence of these problems have been properly designed and subsequently implemented. These programmatic evaluations include reviews of NNECO's Comprehensive Plan, the ECP, various corrective action programs, and the Root-Cause Evaluation Program.

The last primary activity is communications and reporting. Elements of this activity include holding periodic meetings open to the public, with the licensee and NRC providing NNECO with feedback on LHC observations, conclusions, and recommendations, and reporting the results of their activities to the NRC.

## V. NRC SCWE AND ECP ASSESSMENT ACTIVITIES

### A. GENERAL APPROACH

The effectiveness of NNECO programs and program implementation associated with fostering and maintaining a SCWE and for handling employee safety concerns were assessed by independent NRC staff reviews of licensee programs and reliance on the findings of the third-party oversight organization activities. The NRC staff directed its resources to evaluate a sample of NNECO programs and activities and on review of

LHC's oversight activities. This approach provided the staff with independent assessment of the effectiveness of NNECO programs as well as establishing confidence in LHC's assessment approach and findings.

## B. STAFF ACTIONS

As discussed previously, NRC staff reviewed and commented on NNECO's comprehensive plan for reviewing and dispositioning safety issues raised by its employees. The staff also reviewed and approved NNECO's selection of LHC as the independent third-party, to provide oversight of the licensee's implementation of its plan. Further, the staff reviewed and approved LHC's plan for oversight of NNECO's programs required by the Order.

Separate from LHC oversight activities, the NRC performed independent assessment activities of licensee and LHC performance, including:

(1) Participation in periodic meetings open to the public between NNECO, NRC, and LHC that covered the results and findings of LHC assessment activities and the status of NNECO SCWE and ECP program activities. Between May 1997, and April 1998, nine meetings were held.

(2) Staff periodic review of NNECO programs, procedures, and performance data. This function was performed in Headquarters and onsite and in preparation for the periodic meetings held with NNECO and LHC.

(3) Onsite observation and monitoring of NNECO program activities.

(4) Onsite observation and monitoring of LHC program activities.

(5) Conducted a team evaluation of NNECO's ECP and SCWE (December 1997 and January 1998).

(6) Conducted a team evaluation of LHC oversight activities (December 1997 and January 1998).

(7) Assessment from SCWE perspective of corrective action and related programs using the guidance of NRC Manual Chapter (MC) 0350, and NRC Inspection Procedures 40500.

(8) Evaluated the program success criteria, performance measures, and quantitative performance metrics established by NNECO and presented at the periodic meetings.

## C. ASSESSMENT MEASURES

NNECO's actions to improve its programs were assessed using the findings of LHC, licensee self-assessments, performance indicators, and NRC evaluation findings and observations. Staff prepared an assessment plan that included standards for

determining the adequacy of NNECO's actions to improve their programs for reviewing and dispositioning safety issues raised by employees. Staff assessed NNECO ECP programs to ascertain whether (1) employees are knowledgeable of ECP program and the programs function; (2) concerns brought to ECP are kept confidential and are addressed promptly; (3) concerns are prioritized based on safety significance and that there are no concerns open requiring correction prior to restart; (4) employees are informed of the status and resolution of their concerns; and (5) concerns raised about the use of the ECP are evaluated and properly addressed. Staff assessed NNECO SCWE programs to ascertain whether (1) managers are trained on SCWE elements; (2) policy on SCWE promulgated by management is received and understood by employees; (3) function of line organization in resolving issues is fundamental in SCWE; (4) action plans for focus areas are established and adhered to; (5) existence of no focus areas that would inhibit safety issue identification and resolution; (6) findings of Employee Concerns Oversight Panel reviews and SCWE self-assessments support restart; (7) third-party organization assessments for restart completed and basis for recommendation documented; and (8) plans for maintaining SCWE after plant restart is in place and acceptable.

### D. INTERACTION WITH THE PUBLIC

Between May 1997 and April 1998, nine meetings were held between LHC, NRC, and NNECO to discuss the status of SCWE and ECP activities. These meetings were held near the Millstone site and were open to the public. In addition, the public was kept informed about Millstone SCWE and ECP activities at the periodic meetings held with the public in Waterford, Connecticut. At each of these meeting, summaries were provided of ongoing SCWE and ECP activities and the public was provided the opportunity for comments. Also, LHC attended and participated in several of the meetings to present the results of their recent activities.

## VI. STAFF ASSESSMENT FINDINGS

### A. NNECO ECP PROGRAMS

**Organization**

As noted previously, the ECP staff consists of about 25 persons of which about 15 are contractors. However, NNECO has started changing over to a permanent NNECO staff. The organization has independence, resources, and management support to perform thorough, unbiased investigations.

The Millstone ECP investigators are generally divided into a technical group and HR group. The staff determined the number of investigators was appropriate to effectively handle the number of concerns being seen. The ECP organization does not have any other significant duties and appears to be sufficiently independent from the rest of the NNECO organization to allow for thorough and unbiased investigations.

Staff found the licensee's ECP organization had the independence, resources, and management support to perform thorough, unbiased, investigations. The minor discrepancies found by the team did not significantly detract from the program or its accomplishments.

**Processing Concern Cases**

The ECP receives concerns related to a wide variety of topics such as nuclear safety or quality, management, industrial safety, security, and sexual harassment. Concerns can be received from former and present employees and former and present contractors. About 14 concerns per month were received during 1997. For each of the concerns, the ECP established a case.

NRC evaluators independently reviewed 18 ECP case files that were either closed or resolved after July 1997. ("Resolved" means that a concern has been evaluated and a corrective action plan has been approved but the action has not been completed. "Closed" means that the corrective action has been completed.) The NRC evaluators found that the concerns were prioritized based on safety significance, identities were protected, case resolution was timely and there was appropriate follow-up on corrective action adequacy. For two of the case files, the NRC verified that the corrective action had been completed as stated. The NRC also found that the conclusions of all of the ECP evaluations were properly supported by NNECO's investigations, the investigations were unbiased, corrective actions were proper to resolve the issues, and communications with employees about their concerns were improving. The NRC found that the ECP was properly protecting the identities of those individuals raising concerns to the ECP. The NRC also found some minor discrepancies. These included the licensee's communicating on a timely basis to persons who raised concerns, classification of some cases, and, in one case, premature closure of a concern.

**Training**

The NRC evaluators performed interviews and qualification record reviews to assess the qualifications of the ECP investigators. Although, the licensee had administrative weaknesses regarding documentation of qualifications, the NRC evaluators found the investigators to be well qualified and properly trained for their duties.

**Metrics**

The Millstone 3 Performance Indicator Report is intended for use to track and trend the readiness of the Millstone station and Millstone 3 to restart. Data tracked include information related to Common Restart Readiness Indicators, Operations indicators, Maintenance indicators, Corrective Actions, Engineering indicators, and SCWE indicators.

Indicators for tracking the performance in the SCWE include numbers of employee concerns, employee concern backlog, employee concern resolution timeliness, and

NNECO condition report statistics. These indicators cover a range of program areas related to the SCWE and provide an appropriate data to trend and analyze. Based on review of the indicators applicable to the SCWE, it appears that the ECP program at Millstone Nuclear Power Station is functioning more effectively now than it was in 1996, when the MIRG report on "Handling of Employee Concerns and Allegations at Millstone Nuclear Power Station Units 1, 2, and 3 From 1985 to Present" was released.

**Organization Interfaces**

The NRC reviewed applicable organization charts, the ECP and HR protocol document, and interviewed individuals from the ECP, HR, and Contract Administration to evaluate organization interfaces. The NRC also interviewed the ECP Enhancement Program Project Manager and the HR Director and Managing Partner to assess the working relationship between ECP and HR. Both managers believed the relationship between these two groups has recently improved greatly. As part of this relationship, HR assigned two individuals to work on the ECP staff. Also, the HR and ECP staffs have participated in joint meetings. The two organizations also have developed a formal protocol signed by the Director, ECP and Vice President - HR. The protocol provides a formalized process to be used to handle employee concerns referred to the HR organization by the ECP.

The NRC also interviewed the Director, Contracts and Project Management, and the Manager of Contracts about their organization. They stated that any discipline to contractors is done mainly by the contractors' organization. Because of the recent problems that occurred in the motor-operated valve (MOV) organization, the licensee has taken a number of corrective actions to ensure adverse actions are not the result of protected activities. The licensee has instructed the contractors that formal discipline must be reviewed by the Executive Review Board to ensure it is not the result of harassment, intimidation, discrimination, or retaliation. They interface regularly with ECP regarding cases involving contractors. They also wrote a new procedure, "Procurement and Administration of Contractor Services, OA 13," to improve the overall management of contractors. The contractor closeout checklist also offers an ECP session for those contract employees leaving Millstone. The responsibility for ensuring this closeout checklist is completed is with the contractor.

The NRC evaluators also interviewed the HR Recovery Officer about his role. He stated he was required by the Chief Executive Officer to provide guidance for HR-related issues for a 3 to 5-month period, ending in February 1998. The NRC was informed recently that the Vice President - Human Services, has assumed those responsibilities. He stated that the HR Director and Managing Business Partner perform the day-to-day management of the onsite HR staff. His major focus is on three areas (1) Improving consistency of HR' policy implementation at the Millstone site; (2) developing a leadership and team building training program for all Millstone employees; and (3) developing a strategic work force plan.

NRC evaluators concluded the interface between the ECP and HR organizations has greatly improved over that noted by the MIRG. It was also determined that the

licensee's initiative for recognizing individuals for bringing up concerns provided positive encouragement for identifying potential safety issues.

## B. NNECO SCWE PROGRAMS

### Staffing and Organization

Until late November 1997, staffing and support for SCWE appeared weak. There was no formal organization, and vacancies related to SCWE activities went unfilled. There appeared to be little or no central focus, and the staff did not appear to be held accountable for their SCWE activities. NNECO had implemented several programs to improve performance in this area and had appointed the Recovery Officer for Unit 3 as the Executive Sponsor for the program. However, designation of SCWE organizational responsibilities and staffing remained weak until early December when NNECO established a formal SCWE organization and delineated specific responsibilities for personnel in the organization. Open vacancies were filled, and the ECP organization was moved from Nuclear Oversight to the new SCWE organization. The SCWE organization was expanded and now includes the Director of HR; the Director of ECP; a SCWE Issue Manager; and functional areas of regulatory interface, focus area resolution, survey coordination, training coordination, and the SCWE comprehensive plan.

In February 1998, NNECO published a SCWE Handbook that formalized the major elements that had been developed by Millstone to ensure an SCWE is fostered and maintained. The Handbook is a resource and reference for Millstone leadership and employees and for Millstone personnel directly involved with monitoring the health of the SCWE. It is considered by the licensee as a living document that will be updated periodically to ensure it remains a useful resource for Millstone personnel. The Handbook describes the policy and expectations for an SCWE, defines an employee's concern, and describes how employees can raise issues or concern. It briefly defines the applicable regulations and NNECO policy, expectations for supervisors to respond to employee concerns, and gives the points of contact.

### Management Leadership Assessments

One section of the SCWE Handbook describes the leadership development (Leadership Assessment) survey that is given periodically to provide feedback to supervisors and managers on their strengths and weaknesses. In November 1997, the site conducted such a survey (third in a series - the first was in November 1996, and the second in June 1997). In general, the results continued to show improvement. For example, from a total of 2597 responses (1756 employees and 841 contractors) the raw scores improved from 4.71 percent in November 1996, to 5.70 percent in June 1997, to 5.80 percent in November 1997. The raw scores are based on a numerical rating system in which the employee is asked to rate a leader either ineffective, somewhat effective, effective, very effective, or extra ordinary, with a corresponding numerical rating from 1 (ineffective) to 8 (extra ordinary). If a supervisor or manager is rated less than 4 (effective) senior management initiates corrective action such as a program to help the supervisor or manager to improve.

## Identification and Resolution of Focus Areas

The NRC reviewed the Focus Area Plan that describes the standards, expectations, and course of action to address focus areas. Focus areas are areas where challenges to the SCWE exist. The Focus Area Plan calls for specific action plans to be developed for each focus area. Generally, the NRC evaluators found that the licensee has made considerable progress to improve its identification and resolution of focus areas. In mid-1997, NNECO had identified 33 such focus areas and initiated corrective action; as of March 1998, the number of focus areas were down to nine. The NRC found some weaknesses in the action plans used for the resolution of focus areas. Specifically, weaknesses were found in the program with respect to (1) prioritizing focus areas by significance, (2) review and attention by management both in the development and implementation of the action plans, (3) assurance that the scope of its action plan is adequate and addresses all possible organizational areas, (4) consistency and quality amongst the action plans, (5) setting and scheduling milestones, (6) developing the basis for closing the action plans as complete, (7) evaluating the effectiveness of meeting goals and objectives of each action plan, and (8) identifying action plans as confidential and to follow procedures for confidentiality, as is done with other documents dealing with personnel actions.

The NRC notes that the trend at decreasing numbers of focus areas is an indication that NNECO has taken action to resolve organizational focus areas; however, the NRC notes that no new focus areas were identified even though SCWE personnel were active in interceding in identified potential organizational focus areas. NNECO explained that its current policy is not to identify an area with personnel interaction issues as a focus area under circumstances where the focus area is identified early and actions are initiated to resolve the issue. Staff determined this approach acceptable, but noted that since the criteria for identification of 'focus areas" had changed, tracking of the number of "focus areas" may not be a useful indicator.

## Training

Because of the licensee conclusion that there was a lack of knowledge regarding the requirements of 10 CFR 50.7, "Employee Protection," training was developed for all supervisors and managers on the SCWE. NNECO also revised existing training program, to include ECP indoctrination. NRC evaluators attended several sessions of the SCWE training and found the training to be well attended, with good participation. Overall, the NRC evaluators concluded the training to be a worthwhile effort in addressing the licensee's shortcomings in this area.

NNECO considers "Forum for Leadership Excellence," "Managing for nuclear Safety," "Civil Treatment," and "50.7 Familiarization," to be the training courses that are to be completed by the supervisors of Unit 3 to satisfy the training objective. The licensee's training department maintains a database to track those individuals that have taken the required training.

Surveys were taken by NNECO to determine from employees how they believed their supervisors and managers were performing with respect to SCWE. Based on

leadership survey feedback, low scoring manager's work with the HR staff to develop individual improvement plans. The NRC evaluators found that candid criticism of the low scoring performers was directly addressed in the three improvement plans reviewed. The licensee's program of training, employee surveys, and feedback to supervisors and managers was found to be an effective method for introducing and enforcing a SCWE at Millstone.

As part of its SCWE training for non-supervisors, the licensee held an SCWE standdown while NRC evaluators were onsite. The stand down was intended to allow 1 hour for the supervisors to provide further discussion on the information presented in a SCWE videotape that was previously shown to the site personnel. The standdowns were held at the work group level. The NRC evaluators attended several of the standdown sessions. The evaluators observed that the standdown sessions were well attended, provided a good exchange of information and led to the development of worthwhile action items. The NRC also viewed the SCWE videotape that was previously shown to the staff and viewed the lesson plan material that accompanied the videotape and found the information to be helpful for establishing a SCWE and informing the employees of their opportunity to use the ECP if they have concerns.

NRC evaluators also attended a session of the licensee's "Civil Treatment for Employees," and "Partnership Beyond 2000," training for employees. The "Civil Treatment for Employees" training outlined a standard of behavior that should be followed in the work environment. The "Partnership Beyond 2000" training covered fostering a workplace environment where employees feel welcome to raise safety concerns and included training on the ECP.

The licensee's revision to its Plant Access Training (PAT) training that covers the training on the ECP program was reviewed. Specifically, Plant Access Training Manual-Module 7, dated May 21, 1997, which covers "Employee Concerns," was evaluated. The NRC evaluators found the training generally acceptable.

To promulgate lessons learned during the implementation of the comprehensive plan, the licensee uses handouts titled "Briefing Sheet for First-Line Supervisors." The supervisors are expected to pass this information to their subordinates. The licensee has not developed plans regarding conducting periodic refresher training specifically for SCWE.

The licensee has made significant improvements in the training provided to its staff regarding the SCWE and the ECP. Generally, the NRC evaluators found that the licensee's program provides accurate and meaningful training on SCWE and ECP. The licensee is also ensuring training records are kept to ensure the training is given to those that require it and soliciting and using feedback to determine the training's effectiveness.

**ECOP**

ECOP is composed of a diverse group of Millstone employees including non-exempt workers to exempt managers. ECOP monitors the Millstone workplace environment

and provides oversight and assessment of the ECP organization. It is composed of a Chairperson, three non-exempt employees, two exempt non-supervisory employees, two exempt supervisory employees, and two consultants. There is also a group of alternates that can sit on ECOP under certain circumstances as denoted in the Charter. Although ECOP began its duties in mid-1997, most people involved at that time were serving on a part-time basis, which made it difficult for ECOP to perform meaningful activities. A sufficient level of dedicated full-time employees was not achieved until October 1997, and it was not until this time that ECOP began to function fully.

NRC evaluators determined that ECOP was sufficiently independent from the ECP organization that it was chartered to oversee. The ECOP Chairperson, who is responsible for the day-to-day functions of ECOP, reports to the President and Chief Executive Officer - Nuclear. Reports, surveys, and assessments generated by ECOP reach high levels of management within the licensee's organization, such as the President and Chief Executive Officer - Nuclear, ECP Director, Vice President of Nuclear Oversight, Nuclear Committee to the Board of Trustees, Nuclear Committee Advisory Team and Vice President Operations and SCWE Sponsor.

The NRC reviewed the ECOP Charter and implementation procedures. The charter was clear and concise, described the responsibilities, panel composition, meetings, self-assessments, qualifications, and training, ECOP activities, and reports. ECOP implements its charter through the use of the Protocol Set (implementation procedures). The Protocol Set contained sufficient information and covered a wide range of areas to enable the ECOP to carry out its chartered functions. The Protocol Set covered oversight and assessment of the ECP, review of HIRD cases, workplace environment assessment, third party reviews, employee termination reviews, meeting protocol, self-assessments, responding to concerned individuals, verification and validation of Comprehensive Plan action items, and assessment of the HR organization.

An important function of ECOP is to try to identify instances of HIRD, to review the workplace for chilling effect, and to identify and report "focus areas." ECOP's method for possible early detection of potential conflicts is through the use of ECOP surveys given to various work groups at Millstone on a routine basis. ECOP routinely surveys about 300 site personnel on a quarterly basis to solicit their opinions on a variety of issues. It also uses surveys to rapidly pulse the organization to determine if there are any chilling effects after high profile events occur. The survey process appeared to be effective. Also as part of this survey process, ECOP has a list of 40-50 "core" personnel that it surveys and uses as a benchmark. It also conducts facilitated meetings with various organizational units on site if it becomes aware of potential problems developing in a group.

The ECOP organization is also chartered with overseeing and assessing the ECP. The ECOP organization uses ECOP-01, "Oversight and Assessment of the ECP," to monitor and assess ECP activities. The NRC evaluators reviewed several assessments of the ECP that included: "Review of the ECP Manual and NGP 2.15 - Guidelines for the

Handling of Employee Concerns," "ECP Focus Groups Summary," and ECP Review - Third Quarter." The NRC evaluators found the reports to be of good quality, containing various recommendations to improve the areas audited.

ECOP is chartered to monitor the Millstone workplace environment and to provide to the President and Chief Executive Officer - Nuclear, independent oversight and assessment of the ECP. It also must give its approval for restart. As part of this effort, it issues quarterly reports where it grades the four SCWE attributes as satisfactory or unsatisfactory. In its latest report, issued April 7, 1998, for the first quarter of 1998, it rated all of the criteria as satisfactory. Furthermore, it concluded "The Panel has determined that the Millstone Station safety conscious work environment can support the start up of Unit Three."

**Response to Personnel Action Cases**

Since the summer of 1997, there were several high visibility incidents at Millstone station involving the SCWE, the employee concerns program, and potential HIRD issues. In July 1997, there was an incident involving licensee disciplinary actions associated with present and former training department staff. Those disciplinary actions resulted in allegations of discrimination and chilling effect on other members of the work force. Also in July - August 1997, another incident occurred involving personnel actions taken against two contractors working in the MOV department. Those personnel actions were subsequently considered inappropriate, reversed, and remedial actions were taken by NNECO. This incident also had implications of potential chilling effect on site workers. In a third incident, one that occurred while the NRC evaluation team was on site, a manager in the maintenance department was removed from his position and transferred to another department. This incident resulted in concerns raised by those working for the supervisor regarding the appropriateness of this action.

While each of these incidents occurred because of deficiencies in licensee processes, or lack of management sensitivity to personnel actions taken (e.g., potential for a chilling effect), NNECO took deliberate and prompt actions associated with resolving issues raised by each of the incidents. The two incidents that occurred in late summer of 1997, led to SCWE program adjustments and enhancements. Once the potential chilling effect of the incidents was recognized, actions were taken to assess and allay those concerns. With respect to disciplinary actions, NNECO took steps, including the formation of the Executive Review Board, to provide additional measures to assess potential discriminatory and chilling effects of these actions. Licensee actions to recognize and more proactively address emerging issues were demonstrated in NNECO's initial response to the third incident discussed above. The NRC considers that each of the incidents represent management willingness to admit to mistakes or problems in their processes and a willingness to take prompt actions to address the cause. The NRC evaluators also consider that measures taken by the licensee, including SCWE training and formation of the ERB, should serve to preclude and better handle developing personnel actions, such as the two incidents that occurred in the late summer of 1997.

## Executive Review Board

In the summer and fall of 1997, there were instances at Millstone that involved disciplinary actions against NNECO employees and contractors that caused, or threatened to cause chilling effects because of the way they were handled. A contributing factor to the potential chilling effect of these disciplinary actions was that decisions had not had appropriate management review before the actions were taken. In response to these events, Millstone formed the ERB which reviews proposed disciplinary actions against NNECO employees and contractors.

The ERB finalized its charter on December 16, 1997. The four board members were the Vice President of Operations; the Director, HR; the Manager of Contracts; and the Issue Manager for SCWE. Ex officio members were the Chairman of the ECOP; a representative of the SCWE group; and a representative of Legal. Guests, investigators and support personnel attend ERB meetings.

The ERB reviews proposed personnel actions before they are taken whenever line management believes there is a need to take such action involving a company or contractor employee. The primary consideration of the ERB is whether the proposed action involves the potential for discrimination in accordance with the provisions of 10 CFR 50.7 or the action may result in a chilling effect.

An NRC evaluator observed an ERB meeting and determined that the meeting format accomplished the goals and objectives as intended.

## Corrective Action Programs

An NRC team inspection performed onsite from February 9 through February 20, 1998, inspected NNECO's controls in identifying, resolving and preventing issues that degrade the quality of plant operations or safety at Millstone Unit 3. The NRC's overall assessment of the corrective action program was that it was functioning, but the program will continue to require careful monitoring by NNECO to ensure sustained performance.

In the management area, the NRC evaluators found that management communications methods with the plant staff were a strength. There was a common understanding of management's expectations by plant personnel. However, it was noted that a strategic plan and vision statement on where the plant is headed are in draft. This was considered a weakness in view of the fact that the current management has been in place since late 1996. Overall, the Nuclear Group Policies and Standards were considered good. Although teamwork initiatives at the first line supervisor and above were developed, there is a need to extend this to the worker level.

Observations and interviews showed that managers and supervisors encourage employees to identify problems. The plant staff felt that management is receptive to problems brought forward, and individuals generally characterized the environment as improved and currently receptive to problem identification. The team noted that there is

no reluctance or reservations expressed by individuals to identify problems through the Corrective Actions Condition Report process, to the ECP or to the NRC.

There has been an improvement within the traditional quality assurance and quality control function of the Nuclear Oversight organization's audits and evaluation group. The number of auditors has significantly increased as well as their qualifications, and knowledge level has increased. Audit program procedures are acceptable. There are four new audit managers. Oversight has the opportunity to concur with the corrective actions taken for audit findings and nonconformance reports.

LHC also evaluated the corrective action program and concluded, at the April 7, 1998, public meeting, that the CAP is currently performing acceptably well through implementation of corrective actions for Unit 3. LHC also concluded that it is still too early to confirm the long-term effectiveness of many of the corrective actions being implemented.

**Planning of SCWE Efforts Beyond Restart of Millstone Unit**

During the NRC team evaluation completed in January 1998, it was found that the licensee had not sufficiently developed plans to address actions for maintaining and enhancing an SCWE beyond the restart of a Millstone unit. Specifically, processes for maintaining the ECP and SCWE infrastructure, monitoring of performance, including recognition of program degradations, and phasing out of oversight organizations were not addressed in licensee planning documentation.

Subsequent to the on site team evaluation, in February 1998, NNECO provided the Commission its document "Progress Toward Restart Readiness and Long Term Improvement at Millstone Station." The plan identified key performance indicators and self-assessment activities that will be used to continue monitoring performance at Millstone. It organized the plan into five strategic areas: safety; operating excellence; work environment; organization effectiveness; and external relations. SCWE is one of three sub-sections of work environment. However, the plan was preliminary and not complete.

NNECO's March 31, 1998, submittal to the NRC included plans, including commitments and actions, for monitoring and maintaining an SCWE past the restart of Millstone Unit 3. These plans included the following elements:

- Maintenance of the organization and structure of SCWE processes that are currently in place at least through the startup of Millstone Unit 2. This includes consolidation of the SCWE-related functions under a single executive.

- Implementation of an oversight program to review SCWE that will include both internal self-assessments and external independent assessments.

- Continuance of providing NRC with updates on SCWE Key Issues, including any changes to the SCWE section of NNECO's performance plan.

- Training on SCWE-related matters will continue, with emphasis on refresher training and training for new arrivals.

Staff considers that the licensee plans provides an acceptable framework for assuring the organizational and resource support necessary to assure maintenance of a SCWE.

## C. LITTLE HARBOR CONSULTANTS, INC. (LHC) OVERSIGHT ACTIVITIES

The independent third-party team chosen by NNECO and approved by the NRC to oversee the ECP program at Millstone was LHC. LHC members had experience in auditing and evaluating various technical and organizational programs as well as experience in evaluating and implementing employee concerns programs. The team leader served at Comanche Peak as Chairman of the Senior Review Team which set the policy for the Comanche Peak Response Team which was the third party organization responsible for assuring Texas Utility management of Comanche Peak licensability. One team member coordinated the South Texas Project Employee Concern Program. Another team member, a private attorney, specialized in the area of wrongful discharge, discrimination, employment invasion of privacy matters and similar issues. That team member has also provided consulting services for the ECP development and training to corporate management and employee concern investigators on identifying and responding to employee concerns.

In its submittal proposing LHC as the independent third-party organization, NNECO attached the team members resumes. The NRC staff reviewed the resumes for the technical qualifications of the individuals and also for independence from having worked previously on Millstone projects. The NRC staff also asked both NNECO and LHC to certify, under oath, that the company as well as the individuals were financially independent of NNECO. The NRC staff also conducted extensive telephone interviews with each team member. The NRC found the LHC team members qualifications and independence acceptable for their assigned tasks.

### Assessment of Millstone Safety Culture

LHC's Oversight Plan, Section 3.2, identifies a set of 12 attributes that, when present in an organization, generally indicate the existence of a strong safety culture. At a meeting on November 13, 1997, between NRC, LHC, and NNECO representatives, LHC presented a windows methodology it had developed for evaluating the Millstone Station's SCWE. This methodology rated each of the 12 attributes with respect to their being acceptable to support restart of a unit. The methodology also compared the 12 LHC attributes with the 4 SCWE success criteria developed by NNECO. Since November 1997, LHC has periodically rated the licensee with respect to the 12 attributes and NNECO's 4 success criteria. In conjunction with the review and approval of the Oversight Plan, the NRC staff reviewed and found acceptable LHC's presentation of attributes that were indicative of a strong safety culture. LHC stated that information from the structured interviews; assessment and investigation of site events and findings from the programmatic evaluations all factored into the periodic ratings. On the basis of

(1) information presented by LHC in assessments of its 12 safety culture attributes, and NNECO's 4 success criteria, and (2) review of LHC files that NRC staff considers that LHC's approach is sound and assessment findings are well supported.

LHC conducted structured interviews as a principal instrument for establishing a baseline and to measure subsequent changes in the safety culture. LHC performed its first set of structured interviews in June to July 1997. The second set of interviews was conducted in February 1998. A large population of the workforce was interviewed (239 in the first set, and 298 in the second). The selection process was designed to ensure a cross section of workers from every work group and department. The interview questions involved a broad spectrum of SCWE issues, including the willingness of the workforce to raise concerns, the confidence of the work force that safety concerns will be handled properly, the existence of a questioning attitude at the site, and the general work environment at the site. These interviews were determined to be thorough, well structured, and carefully administered, and to provide sound bases for measuring the attitudes of the workforce.

**Programmatic Evaluations**

The NRC evaluation team verified through discussions with LHC personnel, and by attending meetings with LHC and NNECO personnel, that LHC conducted a thorough review of the NNECO's comprehensive plan. LHC presented its initial findings in a meeting with NNECO on May 13, 1997, in which it concluded the following (1) the plan is an adequate approach for upgrading the Millstone ECP; (2) the creation of an independent concerns oversight panel has the potential to accelerate progress toward achieving the plan goal; (3) the plan did not address the full scope of the NRC Order of October 24, 1996, (4) the plan did not sufficiently address the normal programs for problem identification and resolution; and (5) the plan did not clearly identify criteria for success or measurement techniques. NNECO subsequently proposed changes to the plan to address these issues and recommendations made by LHC.

LHC completed its programmatic review of the ECP program and presented its findings at a meeting with NNECO on June 3, 1997. LHC concluded that (1) the documented program contained the basics for an improved ECP; (2) the ECP Manual did not address the full breadth of processing employee concerns; (3) the program did not provide for expected management overview; and (4) the ECP Manual lacked the following elements (a) it did not contain a requirement for conducting an annual external assessment as committed to in the plan; (b) it required all NNECO employees to participate in an exit interview but the site exit process did not ensure that these employees would be directed to the ECP; (c) the Manual did not address coverage for contractors at offsite locations; (d) handling of NRC-referred allegations was not covered; and (e) it did not address personnel qualifications and training. NNECO subsequently revised its program to address LHC findings and recommendations. Staff considered LHC review of the ECP program thorough and complete, and their follow up on NNECO's response to findings assured identified issues were appropriately addressed.

LHC reported the results of its initial review of implementation of the NNECO ECP in a presentation on July 22, 1997, to the NRC and NNECO. This evaluation identified a number of implementation deficiencies, including a lack of discipline, non-compliance with the ECP and the ECP Manual, loss of confidence by some employees in the ECP, and concerns not being consistently and properly resolved or closed. On November 13, 1997, LHC presented to NRC and NNECO the findings of its continuing review of ECP activities. Among the LHC activities reported were reviews of ECP case files, interviews with ECP staff and employees who raised concerns, and observations of ECP activities, such as case intakes, staff meetings, ECP closure panels, and focus group meetings. Although LHC noted improvements in the organization and leadership of the ECP, the training of the ECP staff, and program definition, the review raised some remaining issues and made additional recommendations. As a result of its activities, LHC reported, at a Commission briefing on December 12, 1997, that the ECP was being implemented effectively. The NRC staff finds that the LHC approach and its conduct of the review of NNECO's implementation of the ECP have been thorough and complete. At a meeting open to the public on January 27, 1998, with NRC, NNECO, and LHC representatives, LHC reported on its completion of (1) reviews of ECP HIRD case files and (2) observations of ECP activities. At this meeting, LHC reported that the ECP has responded and corrected deficiencies, and demonstrated an ability to effectively resolve employee fears about retaliation. Findings during the NRC evaluation of ECP implementation, including reviews of case files, were consistent with those of LHC and confirm the ECP improvements made by NNECO in responding to LHC recommendations.

LHC presented its findings on NNECO's corrective action program at a meeting open to the public with NNECO and the NRC on September 24, 1997. LHC conducted the evaluation in three phases. The first phase was a review of condition report (CR) classifications. LHC reviewed 100 CRs and found only 3 that were questionable and 2 of those 3 were essentially treated as Level 1 reports. LHC found this result acceptable. In phase II, LHC evaluated the implementation of the CAP from initiation of a CR to the approval of the corrective actions. The results were (1) site personnel were aware of the CAP and are generally initiating CRs when appropriate; (2) investigations to determine the nature of the condition and the surrounding facts were adequate; (3) most root cause evaluations were adequate; (4) the waiver of root cause evaluations for Level 1 CRs was not always justified; and (5) root-cause evaluations varied in quality, level of detail, and report format. Observed weaknesses were (1) cause evaluations were stopped at too high a level of cause; (2) root causes were too generally worded to lead to focused corrective actions; (3) the licensee was reluctant to address individual performance issues; (4) the requirement to address each cause code for Level 2 CRs could lead to too many actions; (5) the tendency to address all contributory causes for Level 1 CRs sometimes weakened the focusing on the root cause; and (6) the requirement to complete in 30 days could be too restrictive for broad programmatic problems. The NRC reviewer found that this evaluation was thorough and complete and the recommendations well supported.

LHC conducted several comprehensive, independent investigations and evaluations of alleged HIRD. One independent investigation involved allegations of retaliation and

chilling effect associated with disciplinary action taken by NNECO in July 1997 against personnel who had worked in the training department. Another independent investigation performed by LHC involved potential harassment and intimidation associated with disciplinary actions taken by NNECO against contract employees in the MOV Department. LHC issued formal reports for both of these investigations. LHC findings associated with these events were also discussed at meetings attended by NRC, LHC, and NNECO. On the basis of a review of the reports, monitoring of LHC's conduct of the investigation, and LHC's presentation of its findings, the NRC staff considers that the investigations were well conducted and documented. LHC also monitored and conducted independent assessments of other incidents at the site, including a deteriorating situation in the Oversight Quality Control Group. The findings from LHC's investigations of the cases helped NNECO understand weaknesses in its processes associated with the events and contributed to the licensee's development or confirmation of corrective actions. LHC monitored the licensee's actions to address the events and verified the licensee's final resolutions of actions where appropriate.

As previously discussed, LHC has reviewed in detail and monitored, for example, the ECP; the corrective action program; and comprehensive plan. When the NRC evaluation team reviewed LHC's activities in December 1997, and January 1998, it found that LHC had not yet evaluated the Employee Concerns Oversight Program or a number of the activities of the SCWE program. Subsequent to the NRC team evaluation, LHC scheduled and conducted oversight activities for significant elements not previously covered.

**Communications, Reporting, and Administrative**

The Oversight Plan provides guidance for LHC's presentation of observations, conclusions, and recommendations to NNECO on its efforts to improve the site's SCWE. Although recommendations were routinely and formally given to NNECO by LHC in periodic meetings and reports, NNECO's responses to the recommendations had not, until after the beginning of the year, been formally tracked by LHC. The NRC evaluation team members considered tracking and assessment of licensee responses to LHC's findings a very important activity in ascertaining the status and effectiveness of licensee programs and in providing feedback to NNECO. In seven public meetings between LHC and NNECO (May 1997 and March 1998), LHC provided about 111 recommendations to NNECO. Through April 1, 1998, NNECO had responded to all but four of them (those four were issued by LHC to NNECO in a letter dated March 20, 1998). Of the total, 43 are fully acceptable to LHC, 24 are acceptable, but LHC still wants to monitor the corrective actions, and 40 require further evaluation by LHC.

The NRC evaluators reviewed LHC's first quarterly report submitted on November 25, 1997. The report referred only to slides and documentation presented by LHC consultants at the periodic meetings between LHC, NNECO, and the NRC. Although this information had been docketed and contained some detailed information, the NRC staff did not consider that the first report met the intent of oversight plan commitment for a detailed report. For example, documents presented at the periodic meetings did not describe routine activities conducted by LHC, the status of ongoing major activities, details on bases for findings, and the status of licensee's responses to LHC's

recommendations. Subsequent to the NRC team's evaluation, LHC submitted a report for the last quarter of 1997. This report contained a description of LHC activities for the period October 1 – December 31, 1997, a summary of the results of presentations to the NRC and NNECO, a description of public interactions by LHC other than formal presentations, the status of LHC recommendations to NNECO, and discussed activities anticipated for the next quarter. The staff considers this report much more comprehensive, and satisfies the intent of the oversight plan regarding appropriate report detail.

### D. NRC ALLEGATIONS

In 1996, the NRC received 71 allegations regarding Millstone. Of the 71 allegations, 14 have been substantiated and 21 are still open. In 1997, the NRC received 74 allegations (the highest number of allegations for any nuclear power plant site in 1997). Of the 74, 10 were substantiated and 24 are still open. For those allegations received and closed in CY 1996 and 1997, the percent of allegations substantiated decreased from 28 percent to 20 percent. In 1998, the NRC received 5 allegations in January and 5 in February. In 1996, NNECO received 96 concerns of which 53 have been substantiated. In 1997, NNECO received 199 allegations, of which 109 have been substantiated. NNECO received 27 concerns in January 1998, and 20 in February 1998.

The number of allegations coming to the NRC regarding Millstone has been high and relatively constant over the past two years, although there appears to be a slight decrease in the rate of allegations received in the last six months. In consideration of factors such as the vigorous efforts by NNECO management encouraging employee's to make their concerns known, the NRC staff does not consider the continuing high number of allegations at Millstone to be, by itself, indicative of poor or failing SCWE. Past experience at sites with recovering programs dealing with employee concerns where there is active construction or maintenance programs have shown continuing high incidence of allegations even after program upgrades. Further, since NNECO is receiving significantly more concerns than the NRC is receiving allegations, there does not appear to be a problem with respect to the willingness of NNECO's employees to take their concerns to NNECO for resolution.

## VII. NNECO AND LHC RESTART READINESS ASSESSMENT

### A. NNECO

NNECO's SCWE Handbook specifies four criterion required to be met for restart of a Millstone unit: They are --

(1) Demonstrate that employees are willing to raise concerns.
(2) Demonstrate that management is effective in evaluating, prioritizing, and resolving employee issues.
(3) Demonstrate that the ECP is effective in addressing issues raised by employees that are not resolved satisfactorily by other means within the organization.

(4) Demonstrate that line management is effective in identifying, investigating and resolving areas where the attributes of a SCWE are challenged or lacking.

In a March 31, 1998 submittal to the NRC, NNECO presented its assessment that they meet the four success criteria for successful establishment of a SCWE at the Millstone site and are therefore ready for Unit 3 restart. Additionally, NNECO noted that ECOP, Nuclear Oversight, and the Nuclear Safety Assessment Board, have concurred that SCWE is satisfactory and will support the restart of the units.

## B. LITTLE HARBOR CONSULTANTS, INC. (LHC)

As noted above, LHC identified 12 attributes that it believed were indicators of a strong safety culture. In evaluating the progress of the ECP and SCWE programs at Millstone, LHC allocated its 12 attributes to the four NNECO success criteria. The success criteria and the attributes were graded by LHC from red (significant weakness) to green (world class). In between there were three levels of yellow - yellow minus, yellow, and yellow plus. In the opinion of LHC, attributes graded yellow minus or red was not acceptable for restart. LHC periodically assessed NNECO performance with respect to its attributes and NNECO's four criteria and resented the results to the NRC, NNECO, and to the public in a series of meetings open to the public beginning in December 1997. The last presentation of its assessment results was April 7, 1998, and at that time LHC assessed NNECO as having acceptable performance for restart in each of the four criterions.

Some of LHC's positive conclusions about NNECO's SCWE and ECP were (1) employee satisfaction continues to improve; most recently 88 percent of those contacted would use the ECP again; (2) communications with employees has increased and improved; (3) ECP Processing Manual, Rev. 3, is more user friendly, the forms have been greatly improved, and the development of a rapid resolution process provides a good mechanism for handling and documenting issues conducive to fast resolution; (4) ECP investigations are well performed and documented; (5) additional training in sensitivity in dealing with employees has been conducted; (6) additional training in how to investigate HIRD/alleged 10 CFR 50.7 issues has been conducted; and (7) ECP contribution to "lessons learned" process has been significant.

LHC noted that the HIRD concerns being received by ECP show a trend of decreasing overall level of significance. LHC stated that they consider the SCWE area to be satisfactory to support restart of Unit 3 and noted that an extraordinary level of resources are currently involved in nurturing and overseeing the SCWE at Millstone.

# VIII. CONCLUSIONS

The actions required in the October 24, 1996, Order, to be accomplished before the restart of any Millstone units have been completed. NNECO developed, submitted for NRC review, and implemented 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. NNECO submitted, for NRC approval, a proposed independent third-party

organization, LHC, to oversee implementation of NNECO's comprehensive plan. LHC submitted, for NRC approval, its plan to oversee NNECO's implementation of its comprehensive plan. As specified in the Order, third-party oversight will continue to be implemented until NNECO demonstrates, by its performance, that the conditions which led to the requirement of that oversight have been corrected to the satisfaction of the NRC.

Based on review of documentation, monitoring of LHC activities, and NRC team evaluations, the NRC staff concludes that LHC has effectively carried out its oversight functions. LHC's structured interviews of the licensee's employees that were performed in the summer of 1997, and again in February 1998, were well planned and well documented. The survey findings contained detailed and relevant findings and recommendations. The structured interviews, along with input from site events and program reviews, have provided a well-founded framework and basis for LHC's assessment of the Millstone safety culture. Comparing LHC's findings with NRC's evaluation of NNECO's SCWE and ECP, LHC's programmatic observations and findings appear accurate and thorough in the identification of deficiencies and weaknesses. LHC was particularly thorough and detailed in its oversight efforts of licensee's activities to improve its ECP. The staff therefore has high confidence in the results and conclusions of LHC's assessment of licensee performance and program status.

Based on review of documentation, monitoring of NNECO activities, NRC team evaluations, and consideration of LHC findings, the NRC staff concludes that the NNECO's ECP and SCWE are established and functioning effectively at Millstone. Employee concerns are prioritized based on safety significance, identities are protected, case resolution is timely and there is appropriate follow-up on corrective action adequacy. Further, significant improvements have been made in the training provided to employees and contractors regarding SCWE and the ECP. In addition NNECO has established effective supplemental measures (e.g., the Executive Review Board, Focus Area Plans, and Leadership Surveys) that provide enhanced assurance of providing and maintaining an SCWE. The staff also considers that NNECO has developed adequate plans, following restart of a unit, for monitoring the site's safety environment, addressing problems as they may arise, and applying necessary resources to support ECP and SCWE programs.

The staff concludes that NNECO's programs for handling safety issues raised by employees, and in ensuring that the employees who raise safety concerns are not discriminated against have significantly improved and are sufficient for licensee operation of Millstone Unit 3. The staff notes that in accordance with the NRC's October 24, 1996, Order, the independent third-party oversight organization will continue at Millstone until the licensee demonstrates by its performance that the conditions, which led to the requirement of that oversight, have been corrected to the satisfaction of the NRC. The staff anticipates that at least 6 months beyond restart will be required to evaluate the licensee's continuing performance in the ECP/SCWE areas.

ATTACHMENT 2

# OVERSIGHT AND QUALITY ASSURANCE

## INTRODUCTION

The Restart Assessment Plan addresses oversight and quality assurance as the combined activities of the quality assurance organization function as required by 10 CFR Part 50, Appendix B, the reviews performed by safety committees as required by the Unit 3 technical specifications, and the self-assessment function performed by line management organizations to improve processes by identifying strengths and weaknesses. Oversight and quality assurance (QA) is a restart issue due to past ineffective leadership, program implementation, management support, corrective action, and self-assessments, as identified by internal and external audits, including NRC inspections.

## BACKGROUND

The licensee identified its oversight function as deficient through self-assessments and external and internal audits, and as a contributing factor in its declining performance. The root-cause evaluation of *Effectiveness of Oversight Organization* by the Yankee Atomic Electric Company, dated September 10, 1996, examined the failure of Quality Assessment Services, the Independent Safety Evaluation Group (ISEG), and the Nuclear Review Board (NRB) to identify the deficient Final Safety Analysis Report control process and the degraded radioactive waste conditions, predominately in Unit 1. They found that management did not support these functions adequately.

In addition, the Joint Utilities Management Assessment (JUMA) issued its report on July 17, 1996. One conclusion was that the QA 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.

On July 22, 1996, the Nuclear Committee Advisory Team issued a report to the Nuclear Committee of the Northeast Utilities Board of Trustees that forwarded previous report findings by the Fundamental Cause Assessment Team. In that report, it noted, "Senior executives at Northeast Utilities, from the CEO to senior nuclear site executives, were ineffective over a number of years in providing vision, direction, and leadership necessary for the management of the NU nuclear power program... Key performance issues, such as an effective corrective action program,... critical self evaluation processes were not fully appreciated by senior management even after they were identified by outside industry and regulatory agencies."

The Systematic Assessment of Licensee Performance evaluations for the period December 1990 to July 1994 twice judged Safety Assessment and Quality Verification to be Category 3. Weak self-assessments and ineffective independent oversight contributed to the low level of performance.

LICENSEE CORRECTIVE ACTIONS

Northeast Nuclear Energy Company (NNECO) developed a broad-based corrective action program for the deficiencies identified through internal and external assessments of Nuclear Oversight (NOS). Included among these actions were: promulgating corporate expectations for NOS, reorganizing and staffing, developing new hold-point inspection procedures, improving communications between line organizations and NOS, improving the skills of NOS staff in performance-based assessment, and developing of a process to assess key issues in the recovery process known as the Nuclear Oversight Restart Verification Plan (NORVP). The NORVP contained approximately 20 key issues that were intensively tracked by NOS that gauged the performance improvements being made by the line organization. One of the key issues was NOS recovery. The NRC staff and managers closely monitored the progress being made in the NORVP during the recovery process.

NRC ACTIVITIES

An NRC team inspection examined the area of nuclear oversight using NRC Inspection Procedure 40500, "Effectiveness of Licensee Controls in Identifying, Resolving, and Preventing Problems," from February 9 through 20, 1998. The inspection covered several areas including the review of NOS, which implements the NNECO quality assurance program required by 10 CFR 50, Appendix B. An understanding of the current viability of the licensee's oversight program was obtained through personnel interviews, program evaluations, procedure reviews, and an assessment of the NORVP. The team also examined the Technical Specification (TS), required ISEG and Nuclear Safety Assessment Board (NSAB) activities.

Preceding the IP 40500 team inspection, the resident, regional, and contractor inspectors evaluated NOS effectiveness through the routine inspection program as well as the special inspections associated with the closure of Restart Assessment Plan Significant Items List items.

On April 13, 1998, an NRC Operational Safety Team (OSTI) started an evaluation of the readiness of plant hardware, staff and management programs to support a safe restart and continued operation of Millstone Unit 3. For example, the OSTI has verified that management programs, such as self-assessments, communications, independent oversight, management review committees, and safety committees are adequate to support safe operation. Although this inspection has not been completed, the preliminary results were incorporated into the staff's overall evaluation of oversight.

1. NUCLEAR OVERSIGHT ORGANIZATION

(A) Management Support of Oversight Function

The root-cause finding of most of the assessments, done of NNECO by independent groups before 1997, was that management failed in its leadership role to provide clear expectations and appropriate standards for employees. Central to the management leadership improvements was the replacement of key officers and managers throughout the organization, bringing fresh

perspectives, and an understanding of current industry philosophies regarding the relationship between cost-effectiveness and safety. The NOS organization has been reorganized and a workable infrastructure established. The NOS organization has essentially completed its recovery plan to improve performance through programmatic and organizational changes.

The NRC has observed examples of strong, two-way vertical communications within the organization. The NRC observed a free flow of information to management, and management's ability to communicate to employees effectively. To promulgate the new management expectations and perspectives, NNECO has developed several mechanisms to communicate its new policies and standards to plant staff. It has issued "Nuclear Group Policies and Standards," (a daily newsletter), displayed posters enumerating management's expectations, and held periodic meetings with the staff. NRC observations of the daily meetings have shown effective interdepartmental interactions, a questioning attitude by participants, and a positive management presence.

Additionally, the NNECO management expended substantial effort in team-building training for managers and supervisors. Conflicts between individuals in different departments have occurred, but management has been quick to respond and take effective corrective actions, including long-term actions to resolve the conflict and reduce recurrences. This is in sharp contrast to past practices that alienated plant staff and failed to deal with root causes.

Further evidence of management support is seen in the improved staffing and knowledge levels of NOS personnel assignments. The audit staff has increased from 5 to 20 auditors, and high-quality personnel are rotated into the organization from the line functions.

(B) Audits and Evaluations

NRC review of the audit process found procedures were comprehensive and clearly written. The controlling audit procedure has strengthened the audit process by more clearly defining audit expectations, audit checklists, and the composition of the audit team; thus, providing for a more in-depth audit. Audit findings are issued as Level 1 condition reports, which ensures that they receive a high-level of attention by management. Although the line management is responsible for correcting any deficiencies identified in condition reports, the audit group has established its own computer tracking system of open findings. This information is provided to audit managers and certain line personnel and is used as a tool to track overdue or inadequate audit corrective actions. All audit findings receive followup for adequacy of corrective actions on a sampling basis.

Historically, audit exit interviews were not well attended by line management. A recent review of audit exit interview records showed good attendance by line management and staff.

NOS developed a program to monitor Millstone Unit 3 readiness for restart as part of NORVP. The NORVP was issued in August 1997, and continues to track progress on a bi-weekly basis in specific assessment areas, designated as "key issues." This gives line management an independent assessment of critical areas that required resolution before making plant mode changes. NOS has steadfastly maintained differing, and sometimes unpopular, positions during the recovery process that have given line management useful insights on performance. NNECO management has openly discussed these NOS findings at the NRC/NNECO public status meetings. This shows a healthy relationship and professional respect between the line organization and the oversight function.

(C) Quality Control

Historically, the role of quality control (QC) had been diminished by the systematic elimination of QC hold points in procedures. The QC function was viewed primarily as a means to meet a regulatory requirement.

The NRC reviewed quality control procedures, interviewed personnel and accompanied QC inspectors in the field. The QC inspectors were experienced and qualified in their area of expertise, as well as knowledgeable of the site work control process and documentation requirements. The QC group reviews QA work packages to identify QC hold points before the packages are released to the field. Standardized inspection points for routine work activities have been developed, ensuring critical activities receive appropriate inspection. All of the interviewed QC inspectors stated they would stop work if the appropriate circumstances were presented because they felt they had management support. The NRC observed this in the field, as QC inspectors stopped jobs due to questions with proposed sign-off points and movement of heavy loads.

2. SITE SAFETY COMMITTEES

(A) Independent Safety Engineering Group (ISEG)

The ISEG is required by the Millstone 3 TSs. Its purpose is to provide independent reviews of plant operations and assess operating experience in its recommendations to improve safety and reduce human errors. Historically, the ISEG was not effective in prioritizing and following up on its recommendations, nor in managing its backlog of operating experience reviews.

The NRC staff found that the ISEG did critical reviews of plant operations and made appropriate recommendations for resolution of issues. For example, the ISEG identified significant work control issues in the high-voltage switchyard and stopped work. The NRC found that the ISEG staffing met the technical specification requirements. The ISEG uses the site action request process to track the status of recommendations and perform a closeout of each item.

The ISEG has reduced the backlog of unreviewed operating experience items from several hundred to approximately 40. In 1997, the ISEG performed 12 independent reviews, down from the 24 completed in 1996, because of an increased focus on reducing the operating experience backlog. The independent reviews included human performance evaluations intended to improve safety through human error reduction. The NRC staff found that the operating experience reviews were generally thorough and complete. Besides this backlog, site implementation of operating experience was mixed because a site procedure establishing expectations had not been issued. The ISEG was responsible for incorporating generic operational issues into the Unit 3 daily status report to highlight the importance of operating experience to operational safety. The NRC staff identified examples of ineffective use of operating experience in recovering the unit. For example, Information Notices were not initially included in the configuration management plan and there were incomplete corrective action for Generic Letters. The licensee has taken corrective action to enhance its review of operating experience and ensure that this information is used within its programs.

(B) Nuclear Safety Assessment Board

The Nuclear Safety Assessment Board (NSAB) is required by the TSs and is responsible for the oversight of line management activities. Specific areas of expertise are defined by the TSs for board composition. Historically, the Nuclear Review Board (NRB, the NSAB predecessor) was ineffective in identifying management issues and problems, and it lacked management support to resolve issues identified by the NRB.

The NSAB was reconstituted in 1997 to include senior NNECO managers, recovery officers, and senior nuclear industry members. Expectations for the NSAB were communicated by the Chief Executive Officer, including increased NSAB attention of Nuclear Oversight. NRC attendance at board meetings noted that the board members asked probing questions, displayed significant knowledge of the issues, and provided appropriate oversight. For example, NRC inspectors observed that the NSAB Chair requested the vice president of Nuclear Oversight to conduct an assessment to validate the adequate resolution of several historical issues. The NRC staff found that NSAB's evaluations of issues involving fire protection and employee training, and its review of Nuclear Oversight to be effective. The NSAB was the advocate for updating and maintaining the Unit 3 Operational Readiness Plan. This plan specified the philosophy for restart issue management and restart elements required to prepare Unit 3 for operational readiness. In addition, NSAB has effectively carried out its audit program requirements.

(C) Site Operations Review Committee

The Site Operations Review Committee (SORC), as its name implies, is a site-wide review committee. It is also required by Technical Specifications. It

reviews Millstone activities that affect site-wide operations to ensure they are conducted according to the Unit 3 operating license and regulatory requirements.

The NRC staff concluded that SORC was effective in integrating site-wide license and technical requirements. The NRC concluded that SORC was performing its requirements and was effective in identifying potential safety issues.

(D) Plant Operations Review Committee

The Plant Operations Review Committee (PORC) is required by the Technical Specifications and its multi-disciplinary membership provides oversight of Unit 3 operations to assist the Unit Director. The PORC routinely reviews changes to operations, processes and programs. The creation of the Station Qualified Reviewer for procedure reviews permitted PORC to more accurately focus on operational issues .

The team observed that PORC members were properly focused on safety and compliance with regulatory requirements. PORC issues were tracked in the plant corrective action system, and the team determined that PORC issues received timely disposition.

3. SELF ASSESSMENT

Historically, NNECO failed to implement an effective self-assessment program. The Performance Enhancement Program (PEP) was a broad self-assessment effort developed in the early 1990s to address declining performance. The PEP lacked management support and for the few self-assessments completed, generally failed to identify significant issues because of low standards and accepting the status quo for performance. In addition, management was unable to complete actions based on the results of its self-assessments.

The NRC staff confirmed that NNECO has currently established an effective self-assessment process that contains definitive management expectations regarding the need for performance improvement, an emphasis on self-assessment training and enhanced procedural controls. Line management is accountable and has assumed ownership for doing self-assessments, which are required by all organizations. Training was provided to station personnel to ensure a common understanding and purpose. The Nuclear Oversight organization must also complete self-assessments and was tasked with assessing the effectiveness of the self-assessment program.

NRC inspections of the self-assessment activities found that they were formal, proactive, critical and effective. For example, the NRC Inspection Procedure 40500 inspection team reviewed several self-assessments done by the Nuclear Oversight organization regarding audits, training, quality control, and work processes. In addition, the team reviewed 20 Unit 3 self-assessments and concluded that the technical adequacy was improved and the results were used to identify program strengths and areas for improvements. Overall, the organizational self-assessments identified

organization, process and program weaknesses before they became self-revealing or identified by outside organizations. A significant indicator of the effectiveness of the self-assessment program is that most problems were self-identified at a low threshold and were corrected/improved in a timely manner.

## CONCLUSIONS

The licensee developed a broad corrective action program for the deficiencies identified through internal and external assessments of oversight. The NRC has closely monitored the progress being made in the NORVP and other associated areas. It also independently assessed selected attributes to ensure satisfactory completion of issues. The NRC staff concludes that oversight and quality assurance is adequate to support the restart of Millstone Unit 3 based on (1) the reorganization and replacement of key managers within NNECO and specifically Nuclear Oversight; (2) the promulgation of improved management expectations; (3) the establishment of open communications between the line and NOS and within NOS; (4) the completion of staffing and improved quality and training of the NOS staff; (5) development of a viable inspection and audit program; (6) demonstrated improvements in NOS problem identification and assurance that corrective actions are implemented; (7) improved performance of quality control inspectors; (8) a credible performance by the safety committees; and (9) an effective self-assessment program.

ATTACHMENT 3

## BACKLOG MANAGEMENT

### INTRODUCTION

Effectively managing backlogs contributes measurably to achieving effective work planning and controls and a functional corrective action program. Work planning and controls, and corrective action are areas in which the licensee has demonstrated weaknesses and, therefore, were included in the staff's Restart Assessment Plan as key areas in which the NRC would focus its activities to assess the restart readiness of Millstone Unit 3. Backlog issues were also highlighted by the Commission as an area of concern at the February 19, 1998, Commission meeting and the subsequent staff requirements memorandum (SRM) of March 18, 1998. Key issues regarding the licensee's backlogs, which bear on the staff's assessment of restart readiness at Unit 3 follow. Has the licensee appropriately classified planned work activities as either required to be completed for restart or as deferrable until sometime after restart? Also, does the licensee's plan for managing deferrable work provide a process for assuring that this work is completed in a timely fashion?

### BACKGROUND

On December 13, 1995, the NRC issued a letter to Northeast Nuclear Energy Company (NNECO) requesting NNECO, pursuant to 10 CFR 50.54(f), to provide information describing actions taken to ensure that future operations of Millstone Unit 1 will be conducted in accordance with the terms and conditions of the Millstone Unit 1 operating license, the Commission's regulations, including 10 CFR 50.59, and the Millstone Unit 1 Updated Final Safety Analysis Report (UFSAR). Similar letters were issued to NNECO for Millstone Unit 2 on March 7, 1996, and Unit 3 on April 4, 1996. In those letters, the NRC requested that the information be submitted no later than seven days before restart of the respective Millstone units.

By letter dated May 21, 1996, the NRC further requested, pursuant to 10 CFR 50.54(f), a comprehensive list of design and configuration deficiencies identified for Millstone Unit 1 after the 10 CFR 50.54(f) letter of December 13, 1995, was sent, and a comprehensive list of design and configuration deficiencies identified for Millstone Units 2 and 3 after the Adverse Condition Report 7007 Event Response Team Report was issued. The purpose of this list was to obtain information on the issues that raised questions concerning operability of required equipment and the existence of unreviewed safety questions.

Because of the increased level of NRC oversight, the classification of the units at Millstone as Category 3 plants, the two Confirmatory Orders issued to NNECO in 1996, and the creation of the Special Projects Office, the information needed by the NRC before plant restart changed considerably. By letter dated April 16, 1997, the NRC superseded the requests contained in the previously mentioned 10 CFR 50.54(f) letters and requested the following items (1) the significant items that needed to be accomplished before restart; (2) the list of items to be deferred until after restart; (3) the process and rationale NNECO is using to defer items until after restart; and (4) a description of the actions taken to ensure that future operation of the unit(s) will be conducted in accordance with the license, regulations, and UFSAR. NRC

requested the licensee to submit its response to items 1, 2, and 3 within 45 days of the letter, and items 1 and 2 were to be updated approximately every 45 days, thereafter. Item 4 was requested to be submitted 14 days prior to the Commission meeting to discuss restart for each individual unit.

Although backlogs at restart are expected, the size of the Millstone backlog and the licensee's ability to effectively deal with the backlog is of concern to the NRC and is an area that has been inspected very closely. Historical problems at Millstone have included corrective action programs that were weak in ensuring comprehensive and effective corrective actions. In the past, narrowly focused corrective actions have failed to resolve all aspects of the underlying problem. The NRC is focusing attention on the backlogs at Millstone and the licensee's process to manage the backlog.

LICENSEE CORRECTIVE ACTIONS

1. 10 CFR 50.54(f) Letter Response

By letter dated May 29, 1997, the licensee submitted the requested information of the 10 CFR 50.54(f) letter (items 1, 2, and 3) for Millstone Units 2 and 3. The licensee did not submit the information for Millstone Unit 1 in the first submittal because of a decision to scale back work and minimize resource expenditures during 1997. To develop the significant items for restart list, the licensee reviewed all adverse condition reports (ACRs) open as of January 1, 1996, and all ACRs and condition reports (CRs) initiated after that date. Significance level A or B ACRs and Level 1 CRs were included as significant items. The lower significance level ACRs/CRs were screened further and those issues that questioned the operability or design basis function of maintenance rule group 1 or 2 systems were included as significant items. Maintenance rule group 1 and 2 systems included safety related systems and risk significant systems.

In its May 29, 1997, submittal, the licensee provided the screening criteria used to defer items. Similar criteria are also provided in the licensee's Project Instruction (PI) 20, "Unit 3 Startup Item Administrative Instructions." Items screened by the licensee to determine if they could be deferred included unresolved item reports (UIRs), non-significant ACRs and CRs, non-conformance reports (NCRs), engineering work requests (EWRs), and automated work orders (AWOs). An item was classified as startup required if it was necessary to accomplish one of the following actions:

- Implement or support a change to plant technical specifications;
- Correct a licensing or design basis deficiency;
- Accomplish a restart license commitment; or
- Resolve an operability concern associated with a maintenance rule group 1 or 2 system.

If the item did not fit any of these categories, it was considered for deferral, subject to licensee management review.

By letter dated July 14, 1997, the licensee submitted the required information for Millstone Unit 1 and an update for Millstone Units 2 and 3. Over the next 10 months, the licensee provided the NRC with updates to its deferred items list. On March 31, the licensee provide the NRC with its final 10 CFR 50.54(f) response for Unit 3, that describes the actions taken by NNECO to ensure that future operation will be conducted in accordance with the terms and conditions of the operating license, the Commission's regulations, and the Final Safety Analysis Report.

2. Backlog Management

Backlog issues were highlighted by the Commission as an area of concern at the February 19, 1998, Commission meeting. In a letter dated February 23, 1998, NNECO indicated its intent to provide two Backlog Management Plan submittals during March 1998. As part of this response, the licensee noted that it will provide NNECO's commitment involving added assurance that deferrable items will be completed on a schedule commensurate with the safety, regulatory, and business significance of the item. The licensee also indicated that the submittal will be responsive to the direction provided during the February 19, 1998, Commission briefing. The first submittal dated March 12, 1998, provided NNECO's Backlog Management Plan Methodology and a preliminary outline and content for the Backlog Management Plan. On March 31, 1998, NNECO submitted to the NRC its Backlog Management Plan as an integrated, structured approach to successfully manage and disposition the backlog of identified open items for Millstone Unit 3.

The Backlog Management methodology, as described by the licensee, will reflect the following process functional requirements:

- "Backlog of Deferred Work" will be dispositioned prior to entry into Mode 2 following refueling outage 6 (RFO6);
- Utilization of existing Unit and Station work control and prioritization processes to disposition work items, including an option not to pursue performance enhancement items;
- Stepwise raising of management standards and expectations for plant and personnel performance considering industry benchmarks;
- Monitor performance and results using existing Unit and Station tools and techniques;
- Maintain visibility on work items initiated prior to or during this outage (including ICAVP DRs and CMP Discovery Items);
- Conduct periodic assessments of results to provide added assurance that management standards are being conservatively applied;

- Maintain visibility on the "Backlog of Deferred Work" through appropriate inclusion into the unit schedule.

The Backlog Management Plan contains the licensee's Backlog Management performance targets for both near-term, post-restart, expectations and the RFO6 restart targets. RFO6 is currently scheduled to take place approximately 10 months following restart of Unit 3. The current targets are provided as Enclosure 1. The Backlog Management Plan also contains the licensee's commitments associated with the plan and are provided as Enclosure 2.

NRC ACTIVITIES

Since the licensee has a history of not being effective in implementing corrective actions, the NRC has been closely monitoring the remediation efforts of NU to vitalize the corrective action process over the two year shutdown period. The close out of deferred items will continue to be evaluated after restart.

1. 10 CFR 50.54(f) Letter Response Review

Four inspections have been conducted related to the lists of items that needed to be accomplished prior to restart and those that could be deferred to assess the content of the lists and whether the deferrals were appropriate. During the initial inspection, the NRC reviewed the licensee's process for identification of significant items for restart and items which could be deferred. The NRC also reviewed the one line descriptions of all the deferred items and selected a sample of items for further review. In selecting the items for further review, the NRC considered the safety significance of the systems and the potential for system operability to be affected, based on the one line description. In subsequent inspections, the NRC reviewed the one line description of all the updates to the deferred items list since the previous inspection, and selected items for a more detailed review similar to the process described above.

The initial inspection of the Millstone Unit 3 restart and deferral list was conducted in July 1997. Inspection of the Millstone Unit 2 and 3 deferral lists was conducted in October 1997. During the subsequent inspections conducted in February and April 1998, the NRC reviewed the licensee's update to the Unit 3 deferred list. Updates to the Unit 3 deferred list after the licensee's March 19, 1998, submittal were reviewed as part of the Operational Safety Team Inspection.

As a result of the initial inspection, the NRC concluded that the criteria used by the licensee for developing the significant items for restart list provided the necessary information requested in paragraph 1 of the revised letter dated April 16, 1997, pursuant to 10 CFR 50.54(f). During each inspection, the NRC reviewed the deferred list as described above. The NRC staff generally found the licensee's process for evaluating items for deferral until after restart to be appropriate. During the initial inspection, the NRC staff questioned the completeness and accuracy of the list. As a result, the licensee implemented several corrective actions, including defining management roles

and responsibilities, developing a specific verification and validation process, and increasing management oversight. During subsequent inspections, the NRC staff noted improvements in the quality of the list. Some discrepancies in the deferred items list that did not meet the licensee's deferral criteria were also noted by the staff and were subsequently corrected by the licensee. Even in those instances, the staff determined that there would have been no substantive safety impact on plant operations if those items had been deferred until after startup.

During the April 1998 inspection, the NRC staff did not find any significant items on the deferred list that needed to be completed prior to restart. The NRC staff also reviewed a random sample of all open action requests (ARs) in the Action Item Tracking and Trending System (AITTS). The inspectors selected a sample of 200 ARs, of a total of approximately 9600 open ARs, to determine that items planned to be complete prior to restart were appropriately included in the significant items for restart section of the 50.54(f) submittal. For items planned to be completed after restart, the inspectors determined if the items satisfied the criteria for being deferred and, where appropriate, were included on the items to be completed after restart section of the submittal. The results of the review of the random sample of open ARs was that the NRC staff did not find any ARs on the deferred list that needed to be completed prior to restart.

Though the staff has not performed a specific risk analysis of the deferred items list to determine if there is a increase in risk from the cumulative body of deferred items, risk insights were a factor in the process the staff used to select items for further review. Additionally, in light of the conservative implementation of the licensee's criteria for determining whether an item could be deferred or not and the staff's review of the descriptions of all the deferred items, the staff has a high degree of confidence that the overall significance of the body of deferred items is low. At the request of its Nuclear Safety Assessment Board (NSAB), the licensee's PRA group performed a risk assessment of the AITTS and deferred engineering work items to determine the aggregate safety impact and concluded that there was no measurable impact on core damage frequency. The licensee did identify nine engineering modifications that are being deferred until after restart that could enhance core damage risk and recommended that these items receive high priority in the engineering department's work planning efforts.

2. Backlog Management Plan and Methodology Review

The staff has reviewed NNECO's Backlog Management Methodology and Backlog Management Plan. The staff has found that there are a number of facets of this plan and the licensee's performance in this area, thus far, that indicate it will be an effective management tool. First, the licensee has described the methodology for characterizing the backlog in work management categories; processing and prioritizing the issues using established station procedures and management reviews; monitoring performance using key performance indicators; and assessing progress through self-assessments, oversight audits and surveillances, trending reports, and quarterly assessments of the backlog management performance. The licensee has committed to provide the NRC these quarterly assessments of its progress in achieving the

established goals for each of the work management categories it has established. Secondly, the licensee has established a very conservative threshold for identifying items to be addressed. Even though this has resulted in a large body of items being identified as deferrable, the licensee has indicated that approximately 60% of items identified since the beginning of the current outage have been completed. Thirdly, the licensee has described its intent to disposition all of the deferred items, identified as the "Backlog of Deferred Work," prior to start up (Mode 2) of Unit 3 after its next refueling outage (currently planned for sometime in the second quarter of 1999). By dispositioning, the licensee intends to either complete the work, schedule the work, or eliminate the work item from the system with appropriate justification. Finally, the licensee has established reasonable performance targets and appropriate metrics for each of the work management categories.

Some elements of the licensee's plan require further refinement and development. For example, the licensee's current work planning and control processes do not provide for prioritization of work of a less significant nature such as many of those items contained on the deferred items list. The licensee has not yet formulated its criteria for eliminating work items from consideration, which will be the likely result for many of these items. Though the plan addresses the use of self-assessments and Nuclear Oversight audits, the details of how and when these activities will take place have yet to be determined.

The licensee has established an overall conservative decision-making philosophy in identifying items to be addressed before restart that has, with a few exceptions, been effectively applied. The criteria for restart items includes all items that are needed to correct licensing or design bases deficiencies, or resolve operability concerns associated with a maintenance rule group 1 or 2 systems. Those items not meeting the restart criteria were deferrable. There have been relatively few issues found by the NRC in its "smart sampling" of the numerous discrepancy reports (DRs) and ARs that did not meet the licensee's deferral criteria. The methodology, process, goals, commitments, and performance indicators established by the licensee are adequate for effectively managing and trending performance. The licensee has made progress in completing the deferrable items identified since the beginning of the current outage. Given all of the above, it is the staff's assessment that the cumulative safety significance of the body of deferred items is low and acceptable for restart.

In a March 27, 1998, memorandum to the Chairman, the Executive Director for Operations (EDO) forwarded the staff's approach to the resolution of open items at Millstone. In describing this approach, the staff noted that its overall assessment of the cumulative safety significance of the body of deferred items may result in further staff recommendations. These recommendations may include regulatory tool options for the Commission to consider that would ensure the licensee continues to apply appropriate attention to the backlog of deferred items. Although the licensee's plan does not include specific commitments to disposition the body of deferred work, the staff's overall assessment is that the licensee's plan is acceptable and can work if properly implemented. Given the progress made by the licensee in addressing deferrable work and the reporting commitments made by NNECO in its March 31, 1998, letter, it does not appear to the staff that the use of an additional regulatory tool such as a Confirmatory Action Letter (CAL) or Order is warranted at this time. However,

recognizing past program implementation weaknesses, the staff, in addition to its review of the quarterly assessment reports provided by the licensee, will conduct a Corrective Action Team Inspection (IP 40500) within the next year that would include an assessment of the licensee's performance in managing the backlog. Though the staff does not recommend issuing a CAL or an Order at this time, such an action could be taken in the future if the staff's assessment of the licensee's performance warrants.

CONCLUSIONS

The NRC staff concluded that the criteria used by the licensee for developing the significant items required to be completed prior to restart. The staff also concluded that the licensee's evaluation of items utilizing these criteria to determine if they could be deferred until after plant startup was effective. The NRC staff's assessment of the acceptability of the resolution of open items has noted that the licensee's process has resulted in the list containing appropriate items for deferral and has reflected an overall conservative decision-making philosophy.

The staff has reviewed NNECO's Backlog Management Methodology and Backlog Management Plan has concluded that this plan can be an effective management tool. The licensee has established an overall conservative decision-making philosophy in identifying items to be addressed before restart that has, with a few exceptions, been effectively applied. The licensee has established reasonable performance targets and appropriate metrics for each of the work management categories. The licensee has also made progress in completing deferrable items identified since the beginning of the current outage. Based on the commitments provided by the licensee in managing the backlog of deferred work, the staff's continuing assessment of progress by the licensee in completing deferrable work, and the staff's overall assessment of the cumulative safety significance of the body of deferred items, it does not appear that the use of an additional regulatory tool such as a Confirmatory Action Letter (CAL) or Order is warranted at this time. However, recognizing that implementation of past programs has been a chronic weakness of the licensee, the staff will continue to assess the licensee's progress in addressing the backlog and will also carry out a Corrective Action Team Inspection (IP 40500) within the next year.

## Table 3-1

## Restart and Post Restart Performance Targets by Work Management Category

| WORK MANAGEMENT CATEGORY | BACKLOG As of 02/20/98 | RESTART TARGET | MP3 POST RESTART EXPECTATIONS (NEAR-TERM TARGETS) | RFO6 RESTART TARGETS |
|---|---|---|---|---|
| Corrective Action Assignments (includes 204 - Level 4 DR ARs) | 3127 | • No overdue Level 1 CRs<br>• ≤ 3 % overdue AITTS tied to Level 1&2 CRs | • 1st Qtr. - Total open Level 1 & 2 CRs - hold steady<br>• Subsequent Qtrs. - Gradual Reduction in total open. | • No overdue Level 1 CRs<br>• < 1 % overdue AITTS tied to Level 1&2 CRs |
| Corrective Maintenance Work Orders (AWOs) - (includes 722 Power Block and 401 On PRA Risk Significant Systems) | 1098 | • ≤ 500 Power Block<br>• ≤ 350 On PRA Risk Significant Systems | Expected to rise for the first quarter following Restart, hold steady in the second quarter, and be reduced in subsequent quarters. | • ≤ 500 Power Block<br>• ≤ 350 On PRA Risk Significant Systems |
| Temporary Modifications | 15 | ≤ 15 Temp. Mods. | By the end of 1998:<br>• ≤ 10 Temp. Mods. that can be removed at power | • ≤ 10 Temp. Mods. at Restart.<br>• No Temp. Mod. installed ≥ 1 cycle without CNO approval (at Restart of each planned outage). |

## Table 3-1 (Continued)

## Restart and Post Restart Performance Targets by Work Management Category

| WORK MANAGEMENT CATEGORY | BACKLOG As of 02/20/98 | RESTART TARGET | MP3 POST RESTART EXPECTATIONS (NEAR-TERM TARGETS) | RFO6 RESTART TARGETS |
|---|---|---|---|---|
| Operator Work Arounds (OWAs) | 14 | ≤ 10 OWAs | • By the end of 1998 ≤ 10 OWAs that can be addressed at power | • ≤ 6 OWAs at Restart.<br>• No OWAs open ≥ 1 cycle without CNO approval (at Restart of each planned outage). |
| Control Room Deficiency (CRDs) | 4 | ≤ 10 | By the end of 1998, ≤ 5 CRD that can be addressed during power operations. | • ≤ 5 CRDs at Restart.<br>• No CRDs open ≥ 1 cycle without CNO approval (at Restart of each planned outage). |
| Non Conformance Reports (NCRs) | 36 | ≤ 50 | No overdue NCR C/As. | • Switch to Use of CRs in place of NCRs.<br>• Use CR goals thereafter. |

# Table 3-1 (Continued)

## Restart and Post Restart Performance Targets by Work Management Category

| WORK MANAGEMENT CATEGORY | BACKLOG As of 02/20/98 | RESTART TARGET | MP3 POST RESTART EXPECTATIONS (NEAR-TERM TARGETS) | RFO6 RESTART TARGETS |
|---|---|---|---|---|
| Configuration Management Discovery (UIR/OIRs) | 882 | No Open LB/DB Items | By the end of 1998, 25 % reduction in the number of Open UIR/OIRs | • All UIR/OIRs dispositioned. |
| Engineering Backlog<br><br>(includes: EWA, EWR, MMOD, DCN, DCR, PDCE, MSEE, PDCR, PMR, RIE) | 600 | All Restart Engineering Items complete. | • 3 Months following Restart - Emphasize day-to-day support of safe, event-free operations. Conduct review of all open Engineering work items. Identify:<br>a) Items that can be safely worked during power operations<br>b) Items that can only be worked during plant shutdown<br>• By 6 months following Restart:<br>c) Publish the list of modifications that will worked during RFO6.<br>d) Issue Purchase Orders for RFO6 long lead time parts and materials.<br>e) Identify Engineering Backlog items that:<br>1. are not required for compliance with DB/LB requirements, or<br>2. do not meaningfully contribute to safe, event-free operations, or<br>3. do not measurably, and significantly improve plant availability or output.<br>• eliminate or disposition items from e). | • Complete RFO6 Modifications |

## Table 3-1 (Continued)

## Restart and Post Restart Performance Targets by Work Management Category

| WORK MANAGEMENT CATEGORY | BACKLOG As of 02/20/98 | RESTART TARGET | MP3 POST RESTART EXPECTATIONS (NEAR-TERM TARGETS) | RFO6 RESTART TARGETS |
|---|---|---|---|---|
| Engineering Backlog (continued)<br><br>(Includes: EWA, EWR, MMOD, DCN, DCR, PDCE, MSEE, PDCR, PMR, RIE) | | | • By end of 1998:<br>f) Engineering Packages issued for ≥ 50% of RFO6 Modifications.<br>g) Publish the list of modifications that will be worked during RFO7.<br>h) Publish the list of modifications that will be worked during power operations in 1999 (approved by VP Operations). | |
| ICAVP DRs - | (See Corrective Action Assignments) | • DRs - Level 1, 2, or 3 Corrective Actions (C/As) complete.<br>• DRs- Level 4, Screened against Restart Criteria. All Restart C/As complete. | • 1st Qtr. following Restart - hold steady.<br>• End of 2nd Qtr. following Restart - 25 % reduction in open DR ARs.<br>• End of 1998 - additional 25 % reduction in open DR ARs. | All ICAVP DR ARs complete. |

## Attachment 2
## List of Regulatory Commitments

The following table identifies those actions committed to by NNECO in this document. Any other actions discussed in the submittal represent intended or planned actions by NNECO. They are described to the NRC for the NRC's information and are not regulatory commitments. The Director - Regulatory Affairs should be contacted if any questions regarding this document or any associated regulatory commitments arise.

| Number | Commitment Description | Commitment Date |
|---|---|---|
| B17159-01 | Submit Backlog Management Plan update to reflect the actual backlog of items deferred until after restart. | Within 14 days after entering Mode 2 |
| B17159-02 | Disposition remaining ICAVP DR corrective actions | Prior to entry into Mode 2 following RFO6 |
| B17159-03 | Submit Quarterly FSAR updates:<br><br>Approved update cut-off date:<br><br>December 31, 1997<br>*<br>*<br>*<br>December 31, 1998 | <br><br><br>June 30, 1998<br>September 30, 1998<br>December 31, 1998<br>March 31, 1999<br>June 30, 1999 |
| B17159-04 | Provide Quarterly Key Issue Performance Updates | By no later than:<br>June 30, 1998<br>September 30, 1998<br>December 31, 1998<br>March 31, 1999<br>June 30, 1999 |
| B17159-05 | Provide Quarterly Backlog Management Performance Updates | By no later than:<br>June 30, 1998<br>September 30, 1998<br>December 31, 1998<br>March 31, 1999 |
| B17159-06 | Submit Schedule for License Amendment Requests Planned or Required in 1998 and 1999. | May 30, 1998 |
| B17159-07 | Provide Quarterly License Amendment Schedule Updates | By no later than:<br>June 30, 1998<br>September 30, 1998<br>December 31, 1998<br>March 31, 1999 |
| B17159-08 | Provide Outage Plan Briefings for RFO6 and RFO7 | Approximately 3 months prior to scheduled start of the RFO6 outage<br><br>Approximately 3 months prior to scheduled start of RFO7 outage |
| B17159-09 | Submit RFO6 Post Outage Assessment Report which includes final Backlog Management Performance Report | Entry into Mode 2 following RFO6+90 days |
| B17159-10 | Submit RFO7 Post Outage Assessment Report | Entry into Mode 2 following RFO7+90 days |

*Interim updates will include FSAR change requests to maintain the FSAR current without a significant number of pending changes.