

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BRIEFING ON REMAINING ISSUES RELATED
TO PROPOSED RESTART OF MILLSTONE UNIT 2

PUBLIC MEETING

Nuclear Regulatory Commission
Commissioners' Conference Room
11555 Rockville Pike
Rockville, Maryland
Wednesday, April 14, 1999

The Commission met in open session, pursuant to notice, at 11:12 a.m., the Honorable SHIRLEY A. JACKSON, Chairman of the Commission, presiding.

COMMISSIONERS PRESENT:

- SHIRLEY A. JACKSON, Chairman of the Commission
- JEFFREY S. MERRIFIELD, Member of the Commission
- NILS J. DIAZ, Member of the Commission
- GRETA J. DICUS, Member of the Commission

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STAFF AND PRESENTERS SEATED AT THE COMMISSION TABLE:

LICENSEE:

- BRUCE KENYON, President & CEO, NNECo.
- MIKE MORRIS, Chairman, President & CEO, Northeast Utilities
- MIKE BROTHERS, V.P. Nuclear Operations
- LEE OLIVIER, Sr. V.P. & Chief Nuclear Officer, Millstone Station
- RAY NECCI, V.P. Nuclear Oversight & Regulatory Affairs
- MARTIN BOWLING, Recovery Officer
- JOHN CARLIN, Vice President, Human Services
- DAVE AMERINE, Vice President, Engineering Services

PARSONS:

- ERIC BLOCHER, Deputy Project Director
- DAN CURRY, Project Director

OTHER SPEAKERS:

- JOHN (BILL) SHEEHAN, Nuclear Energy Advisory Council
- THOMAS SHERIDAN, First Selectman, Town of Waterford
- ROBERT BARRON, Millstone Ad-Hoc Employee Group
- RONALD McKEOWN, Friends of a Safe Millstone
- TINA GUGLIELMO, Standing for Truth About Radiation (STAR)

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STAFF AND PRESENTERS SEATED AT THE COMMISSION TABLE:

PARSONS: [Continued]

- SUSAN PERRY-LUXTON, Citizen Regulatory Commission
- JOSEPH BESADE, Fish Unlimited
- THOMAS MASTRIANNA

STAFF:

- KAREN D. CYR, General Counsel
- ANNETTE L. VIETTI-COOK, Assistant Secretary

9 SAMUEL COLLINS, Director, NRR
10 WILLIAM TRAVERS, EDO
11 EUGENE IMBRO, Chief, Mechanical and Civil
12 Engineering Br., NRR
13 HUBERT MILLER, Region I Administrator
14 WILLIAM DEAN, Chief, Inspection Program Br., NRR
15 WAYNE LANNING, Director, Div. of Reactor Safety,
16 Region I
17 TOM ESSICK
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P R O C E E D I N G S

[11:12 a.m.]

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3 CHAIRMAN JACKSON: Good morning. I'm pleased to
4 welcome all of you here today for a briefing of the
5 Commission on the remaining issues related to the restart of
6 the Millstone Unit 2. The Commission will be briefed by
7 Northeast Nuclear Energy Company, Parsons Power Group, Inc.,
8 which is the independent contractor for the Independent
9 Corrective Action Verification Program at Millstone Unit 2,
10 selected public interest groups, a local elected official,
11 and the NRC staff.

12 Due to the duration of our meeting on Millstone
13 today, a lunch break has been scheduled for between 12:30
14 p.m. and 2 p.m. I anticipate, and this is our intent, that
15 Northeast Nuclear Energy Company and Parsons Power Group
16 will complete their presentations before the break, and I
17 will adjust the schedule accordingly.

18 When we return from the break, we will hear from
19 the Nuclear Energy Advisory Council, First Selectman Thomas
20 Sheridan, the Millstone Ad Hoc Employee Group, Standing for
21 the Truth About Radiation, the Citizens Regulatory
22 Commission, Fish Unlimited, Friends of a Safe Millstone, and
23 conclude with a presentation by the NRC staff.

24 Commissioner Dicus will be joining us later in the
25 meeting. She had an unavoidable schedule conflict. But for

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1 the record, she has said that she will make her decisions on
2 the restart of Millstone on the basis of the full record and
3 not based just on what she's here to hear.

4 Now I would like to review the background for our
5 meeting -- Commissioner McGaffigan may or may not be able to
6 get here today.

7 Now I would like to review the background for our
8 meeting on Millstone Unit 2 restart. The three Millstone
9 units were shut down by Northeast Nuclear Energy Company in
10 late 1995 and early 1996 because of design and operational
11 issues. All three of the Millstone units were placed on the
12 NRC's watch list in January 1996 and categorized as Category
13 3 plants in June 1996. As a result of that Category 3
14 rating, Commission approval is required prior to the restart
15 of each of the units.

16 In June 1998 the Commission concurred with the NRC
17 staff conclusion that Northeast Nuclear Energy Company had
18 taken appropriate corrective actions to support the restart

19 of Unit 3.

20 In addition to the placement of the facilities on
21 the NRC watch list, the Commission issued two orders to
22 Northeast Nuclear Energy Company. The first involved the
23 development of a comprehensive plan for resolving the
24 Millstone Station employee safety concerns and requiring
25 independent third-party oversight of implementation of this

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1 plan. That was actually the second order. And the other
2 order involved the independent verification of the adequacy
3 of licensee efforts to establish conformance with the design
4 and licensing bases of the plants, to establish programs
5 that would maintain configuration control, and to document
6 and utilize the licensing and design basis to resolve
7 identified nonconformances.

8 In a January 1999 Commission meeting the
9 Commission evaluated the status of the safety-conscious work
10 environment at the Millstone facility in the context of the
11 Employee Concerns Program order issued by the Commission on
12 October 24, 1996. On March 9, the Commission determined
13 that the current performance of the licensee and the
14 existing environment at the Millstone Station had improved
15 sufficiently that employees felt free to raise safety
16 concerns without fear of retaliation. As such, the
17 Commission lifted the order requiring third-party oversight.

18 The purpose of this briefing today is to discuss
19 the remaining restart issues associated with the Unit 2
20 restart action plan and to provide the Commission with
21 information pursuant to a determination of whether a
22 decision should be made to allow the restart of Millstone
23 Unit 2.

24 Last week the NRC staff provided the Commission
25 with their assessment of Millstone Unit 2 readiness for

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1 restart in a Commission paper, SECY-99-109. The paper
2 discusses the restart action plan, which was developed to
3 include all expected NRC actions required before plant
4 restart would be approved. The plan augments the two orders
5 the NRC issued to Northeast Nuclear Energy Company relating
6 to the Independent Corrective Action Verification Program
7 and the Safety Conscious Work Environment and Employee
8 Concerns Program.

9 The restart action plan requires improvements to
10 the Corrective Action Plan, work planning and control
11 programs, the procedure upgrade program, oversight and
12 quality assurance programs, and personnel training and
13 performance. The plan also provides for the conduct of two
14 major NRC team inspections, one reviewing the effectiveness
15 of licensee controls and identifying, resolving, and
16 presenting problems, and, two, the operational safety team
17 inspections. These inspections have been completed.

18 The Commission has been reviewing the
19 recommendations from the staff and other material relating
20 to the Millstone Station, and is interested in candid
21 comments, evaluations, and conclusions from all participants
22 here today.

23 The Commission will consider the information
24 gathered today as well as all of the documentary record in
25 deciding whether Northeast Nuclear Energy Company has first

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1 of all satisfied the Independent Corrective Action
2 Verification Program order sufficiently to allow lifting of
3 that order, and, second, whether the company has taken
4 appropriate corrective actions overall to allow restart of
5 Millstone Unit 2.

6 Having said all that, I understand that copies of
7 the viewgraphs and the Commission paper are available at the
8 entrances to the room, and taking note of the fact that we
9 do have a Commission quorum, unless my colleagues have any
10 opening comments they wish to make, Mr. Morris, I assume
11 that you will lead off for Northeast Nuclear.

12 MR. MORRIS: Yes, ma'am.

13 Chairman Jackson and fellow Commissioners, good
14 morning. I would like to begin by thanking you and your
15 colleagues in this Agency for making us a better nuclear
16 operator, and I firmly believe that today much more than I
17 did some two years ago. We in this process have learned a
18 great deal, but, as you know, learning never ceases, and we
19 will continue to learn as we go forward.

20 We are confident in our ability to satisfy your
21 requirements through the ICAVP process and to operate this
22 plant, but we're not overly confident.

23 We really are better than we were, but we're not
24 as good as we think we can become, and we want to make
25 certain that you appreciate those comments and our

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1 dedication to continue to getting better.

2 The people at the Millstone Station are eager to
3 demonstrate and to continue to show you and others in a very
4 professional way that they're prepared to operate Unit 2 as
5 they have been operating Unit 3 and continue to earn the
6 trust of this Agency from the resident inspectors to the
7 region office to the headquarters. In the communities we're
8 in we do this business because we are convinced that we can
9 continue on the path that we have been on. And it has been
10 a long and arduous trail that we've gone down, and as I
11 said, much has been learned and much remains to be learned.

12 But as you listen to this team of officers today,
13 all of whom save one are dedicated to be with us long term,
14 I hope you'll walk away with that same confidence, and I
15 know not overly confident, but at least some confidence that
16 we are prepared to do that.

17 With that, if you have no questions of me, I'll
18 ask Bruce Kenyon to make some comments.

19 MR. KENYON: Good morning, Chairman Jackson and
20 Commissioners. I am pleased to report that the recovery of
21 Millstone Unit 2 is essentially complete. Preparations to
22 repair one valve in the shutdown cooling system are in
23 progress. Based on our current schedule, we plan to
24 complete repairs, return the unit to normal operating
25 pressure and temperature, and have the unit ready for

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1 startup in approximately ten days.

2 Other presenters will review our readiness in
3 greater detail. I simply want to offer some personal
4 observations based on having led the recovery of Millstone
5 over the past 2-1/2 years.

6 First, I am quite comfortable that Millstone has
7 learned the lesson of how to establish and nurture a
8 safety-conscious work environment. Yes, it is still
9 fragile. But the skills and mechanisms are in place to
10 identify and address problems as they arise. We will

11 continue to measure leadership on its safety-conscious work
12 environment performance, and we will take action, as we have
13 on numerous occasions during the recovery, if performance
14 does not meet our expectations. Also, we have engaged
15 Little Harbor to periodically assess our performance in this
16 area for the indefinite future.

17 Second, as one who has been a leader in the
18 nuclear industry for many years, and who in several previous
19 briefings to the Commission stated that the fundamental
20 problems at Millstone were the result of deficiencies in
21 leadership, I want to give you my personal assurance that
22 current Millstone leadership, the officers sitting at this
23 table, our many other directors, managers, and supervisors,
24 are a strong team, and they are committed to standards of
25 excellence. In my judgment this team is a much stronger and

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1 more confident team now than it was on the occasion of Unit
2 3's startup ten months ago. And further I am confident that
3 this team will be even stronger ten months from now.

4 As a final point, and, Chairman Jackson, this is I
5 think reflective of how you have led the NRC, we are an
6 organization which is committed to being open and candid
7 with the public. The commitment to a ring radiation
8 monitoring system which will be independently operated and
9 maintained is a recent important example. And we continue
10 to look for ways to demonstrate our openness at the new
11 Millstone, and to have meaningful dialogue with both the
12 general public and our critics.

13 Shortly we will be ready to resume operation of
14 Unit 2. Your trust and confidence in this regard will not
15 be misplaced.

16 This concludes my opening remarks. The next
17 speaker is Lee Olivier.

18 MR. OLIVIER: Thank you, Bruce, and good morning,
19 Chairman Jackson and Commissioners. I'll be covering four
20 major topics in my remarks today. The first is our success
21 in addressing the root causes of the past performance
22 problems at Millstone Station. The second is our belief
23 that Unit 2 is ready for restart. Third is our efforts to
24 successfully complete our transition from a recovery mode to
25 an operationally focused station. And fourth is our plan to

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1 ensure that Millstone continues to move forward to achieve
2 nuclear excellence, what I call achieving best-to-best
3 performance.

4 Now before I address these introductory topics, I
5 want to briefly review the rest of our agenda today.

6 Our Marty Bowling will be discussing the Unit 2
7 corrective action verification process, and in particular a
8 discussion on the results of the ICAVP for Unit 2.

9 Mike Brothers will talk about Unit 2 readiness for
10 restart, and he will also be talking about our plans to
11 ensure that his area of responsibility, nuclear operations,
12 will continue to improve and achieve excellence in the
13 future.

14 Ray Necci will review Nuclear Oversight's
15 assessment of Unit 2's readiness, and he will also be
16 talking about Oversight's future role in achieving
17 excellence at Millstone Station.

18 Also with us here today is John Carlin -- he is
19 our vice-president of human services -- and Dave Amerine,

20 who is our vice-president of nuclear engineering.

21 Now briefly I'd like to review what steps we've
22 taken to successfully address each of the fundamental
23 root-cause areas that have led to the decline in performance
24 of Millstone Station.

25 First, in the area of leadership, today our

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1 leadership is effective with strong operational focus
2 characterized by conservative decision making in all aspects
3 of our operation. As you know, we've been conducting
4 leadership surveys in the past, and our most recent
5 leadership survey, which was the one which was conducted in
6 November of 1998, shows ongoing improvement. Employees feel
7 that their leadership is effective, demonstrating high
8 integrity and a strong commitment to our core values.

9 The second area of significant improvement at
10 Millstone Station is the establishment of a robust
11 safety-conscious work environment and an environment that
12 received constant attention across the site. The threshold
13 for identifying employee concerns is appropriately low, and
14 about 60 percent of the concerns that we receive today are
15 basically issues about personal policy issues and other
16 human-resourcetype issues. Our latest leadership survey
17 results show that 96.6 percent of the Millstone leaders were
18 rated as effective in resolving employee concerns.

19 However, we acknowledge, as Bruce said, the
20 fragility of the Millstone environment, and because of our
21 realignment that we have ongoing right now and our later
22 move to deregulation, we understand and do not underestimate
23 the amount of effort and energy we will have to place in a
24 safety-conscious work environment going forward.

25 Now in our last meeting we talked about retaining

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1 Little Harbor Consultants, and we have signed a contract
2 with Little Harbor Consultants. They will be available for
3 us to do assessments on a quarterly basis. We are also
4 committed to making the results of the assessments available
5 to the NRC and to the public. And Little Harbor will be
6 available to do independent assessments, investigations, and
7 intervention as necessary. We will be setting up a 24-hour
8 employee guidance and assistance toll-free line that Little
9 Harbor will monitor for us.

10 The third area is nuclear oversight. We have
11 demonstrated significant improvement in this area. Our
12 oversight group is involved, independent, intrusive, and
13 working well with the line organization, and is
14 demonstrating high standards of performance. Our line
15 organization respects the role of oversight and values their
16 advice in helping to solve problems at the plant. The NRC
17 40500 inspection found the nuclear oversight organization to
18 be quite active and involved in day-to-day activities, as
19 well as the other independent oversight bodies such as the
20 Nuclear Safety Assessment Board, the Plant Operations Review
21 Committee, and the Site Operations Review Committee. Now
22 Ray Necci will cover more in this area in his portion of the
23 presentation.

24 I'd like to turn just briefly to self-assessment.
25 We now have a very self-critical culture in place at

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1 Millstone Station. We are using self-assessment for our
2 continuous improvement, and it has really made a difference

3 at Millstone. Condition reports are being generated at an
4 appropriately low threshold level, and long-term corrective
5 actions are being implemented and effectiveness for followup
6 is also in place. We have a new attitude about the
7 importance of self-assessment, and recently we are putting
8 together a team to do a combined self-assessment on our Unit
9 2 readiness for our INPO evaluation, which will take place
10 later this year on Unit 2, as an example. We're going to
11 bring in industry peers from across the Nation to support us
12 in that self-assessment.

13 This is the new Millstone. It's committed to
14 using the experience and lessons learned from other
15 successful members of the industry. In the past, Millstone
16 was accused of being an insular organization. That is not
17 the case anymore.

18 In regard to standards, our standards have been
19 raised across the site. The work force at all levels holds
20 the organization accountable for achieving high standards.
21 An example of this is that we have just recently started a
22 sitewide involvement team in preparations of our Unit 3
23 outage, whereby we're going to have people that are not
24 directly assigned to Unit 3 make positions available for
25 them to participate in during the refueling outage. We've

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1 had a huge turnout of people from across the site that want
2 to participate in the refueling outage, and that's a lesson
3 learned that we've taken from the South Texas Project. They
4 are one of our partners.

5 We have conservative decision making across the
6 site, but most importantly in the operations area during the
7 move from mode 6 up to mode 3, we noticed conservative
8 decision makings by our operations people. We also noted a
9 strong oversight involved in the restart and also
10 conservative decision makings from our engineering.

11 We have a strong bench-marking program. Right now
12 we have partnerships with South Texas and also with Virginia
13 Power. We've been very involved with INPO. We've had a
14 series of assist visits so far this year. We've had assist
15 visits in the area of chemistry, steam generator management,
16 and outage management. Also, Mike Brothers, who is our
17 vice-president of operations, is a new member of the INPO
18 Industry Review Group for assistance and events.

19 Now in 1996 Millstone identified 16 key issues
20 necessary for recovery of the station, and we've been
21 tracking these issues with the NRC, and they have been the
22 basis of the briefing books you have received prior to each
23 meeting with the Commission. In the briefing book we
24 submitted last week, we reported all but one of the
25 remaining Unit 2 specific key issues now satisfactory for

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1 restart of the unit. The one remaining issue is the work
2 control and planning. We're still slightly over our backlog
3 for online maintenance requests, and we're working on
4 schedule adherence on Unit 2. And that will be complete by
5 the time we're ready to enter into mode 2.

6 CHAIRMAN JACKSON: Let me ask you a quick
7 question.

8 MR. OLIVIER: Sure.

9 CHAIRMAN JACKSON: These are sitewide issues. Of
10 these, which presented the most challenge to Unit 2?

11 MR. OLIVIER: I would say the one that presented

12 the most challenge would be engineering quality would
13 probably be the biggest challenge for Unit 2.
14 CHAIRMAN JACKSON: Where does that fit into here?
15 I didn't see that.
16 MR. OLIVIER: Where does it fit into -- oh, yes,
17 that's an adder into this list.
18 MR. BOWLING: Chairman Jackson, that was added --
19 based on the lessons learned from Unit 3 we added that as a
20 key issue for the restart of Unit 2.
21 CHAIRMAN JACKSON: All right. That was my
22 understanding. In fact, I was going to ask you where
23 engineering quality fits in.
24 MR. BOWLING: It was not one of the original 16.
25 CHAIRMAN JACKSON: Okay.

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1 COMMISSIONER MERRIFIELD: Chairman, I had a
2 question relating to the slide. Is your preference to have
3 me ask it now or to withhold?
4 CHAIRMAN JACKSON: Go on. It'll be quick, I know.
5 COMMISSIONER MERRIFIELD: Given the length of your
6 shutdown, what have you done in the area of training to
7 prepare operators to move from a recovery mode to an
8 operating mode?
9 MR. OLIVIER: Well, we've taken each crew and we
10 have given them extensive training in all aspects of plant
11 operation, both startup, shutdown, normal operations,
12 testing, and surveillance in our plant simulator as well as
13 in the control room. But we also have implemented a very
14 aggressive just-in-time training so that every time we go
15 through a major evaluation, we have the operators that are
16 going to do that evolution either do it in the simulator or
17 in the plant, in the plant using a kind of a simulated
18 exercise in the plant. So we're training people in the
19 simulator and also in the plant prior to doing each major
20 evolution. We look at every major evolution as a first-time
21 evolution, and that's a lesson learned that we took out of
22 Unit 3.
23 MR. MORRIS: And we really saw the results of that
24 specific training as we brought the plant up to mode 3 and
25 then have now since stepped it back to mode 5. We're very

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1 satisfied with the operator performance, and we think it has
2 a lot to do with attention to detail and that specific
3 training that they've been able to receive.
4 CHAIRMAN JACKSON: Since you did bring it up, but
5 it wasn't listed, what are you doing relative to engineering
6 quality?
7 MR. OLIVIER: I'd ask Dave Amerine to speak to
8 that, please.
9 MR. AMERINE: Good morning.
10 We have a lot of efforts under way. I described
11 some of them when I was here before, things like a Quality
12 Review Board that we've put in place to review all
13 engineering products such as design changes and so forth.
14 We've also reemphasized peer review and independent reviews.
15 These are all things that we've done I'll say as an
16 immediate reaction to ensure engineering quality of the
17 products we've had to produce for this outage.
18 In addition to that we've emphasized with special
19 training of the engineers what our expectations are and how
20 they go about them. So where we are right now with respect
21 to quality, the KPIs or key performance indicators we're

22 using have shown all the trends are in the right direction
23 with respect to rejection rates from quality review boards
24 and design changes after issuance of a modification package
25 and so forth.

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1 I think what we have now is an intellectual
2 acceptance of what it means to have good configuration
3 control to generate good products, and my goal over the next
4 six months, and part of my engineering strategy plan is to
5 move from intellectual acceptance into where it's an
6 interstitial part of the fabric of how engineering does
7 business day to day, and we have that discipline, and the
8 way we're going to do that is through the training program
9 which I have laid out for the remainder of this year and
10 have all the engineers, both the design engineers and the
11 systems engineers are currently signed up for and will have
12 to attend.

13 CHAIRMAN JACKSON: Now will you know when you've
14 succeeded?

15 MR. AMERINE: We have also developed, and I'm in
16 the process of finalizing, some new key performance
17 indicators that we will use in trying to make sure that
18 we're getting the results that I expect over the next six
19 months. One example that a performance indicator we have
20 not used heretofore I plan to use is design changes that are
21 necessary after the product's been issued to the field for
22 implementation. If that shows us that there are many
23 changes, then that means the initial issue had some problem
24 in walkdown or interface with our client or something that
25 caused it not to be the quality we want. So that will be

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1 one example of a new key performance indicator that will
2 tell us whether we're making progress or not.

3 CHAIRMAN JACKSON: Do you have folded into that
4 how the actual -- the plant performance relative to the area
5 that the particular design change related to as a
6 performance indicator?

7 MR. AMERINE: Not specifically related to the
8 change. That's something that is worthy of, you know,
9 consideration, but I had not thought about doing that. We
10 do have plant performance indicators that we look at from a
11 system engineering point of view to see if there's further
12 enhancements or if there's any other untoward trend that the
13 engineers need to pay attention to. But as far as the
14 efficacy, which I think is what you meant, the efficacy of
15 the change, other than anything required to get it
16 implemented, no, and that's a good point.

17 CHAIRMAN JACKSON: That's something you may want
18 to think about. Okay?

19 MR. OLIVIER: Okay. Next slide.

20 With the root causes effectively addressed, and
21 the 16 key issues satisfactory for restart and safe
22 operation, we believe that Unit 2 is ready for your
23 permission to restart. I'd like to elaborate on three
24 specific areas in support of our belief about the readiness
25 of Unit 2 for restart. The first is our design basis and

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1 licensing basis has been restored. Restoration is complete
2 and confirmed by the Unit 2 ICAVP. Our design basis is
3 accurate, readily retrievable, and consistent with the plant

4 configuration. Higher standards are now in place in the
5 organization. We have processes to maintain compliance with
6 our design basis. Nuclear engineering vice-president Dave
7 Amerine and his team are now responsible for owning,
8 self-assessing, and enhancing Millstone's configuration
9 management program.

10 We have conducted significant plant material
11 condition upgrades during the course of this long outage.
12 As an example, we did major overhauls on the condensate and
13 feedwater systems, which are systems important for
14 reliability. We have overhauled several of our
15 safety-related pumps. We have overhauled three of the four
16 reactor coolant pumps completely. And we also did a
17 complete overhaul of our auxiliary feed pumps for the steam
18 generator.

19 Backlogs are coming down, and items necessary for
20 restart and safe operation have been accomplished.
21 Remaining backlog has been clearly prioritized and is being
22 worked off. And we have recently sent NRC a letter to
23 change our previous commitment on backlog because we wanted
24 to take items that were basically of lower risk significance
25 and change the schedule and move those farther out so we

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1 could get to items that had greater risk significance and
2 greater reliability issues and operator challenges.

3 In regards to operational readiness, oversight and
4 management observations demonstrate that Unit 2 is ready for
5 restart and safe operation. Our independent verifications
6 from third parties such as the Nuclear Safety Assessment
7 Board and other expert contractors also verify that Unit 2
8 is ready for restart. The operational safety team
9 inspection exit meeting indicates that the unit is in a high
10 state of readiness and can assure a safe startup and safe
11 operations. Operator errors on Unit 2 are declining. We
12 are closely monitoring human performance through the line
13 organization and also for the oversight organization.

14 We have applied the lessons learned from Unit 3,
15 and so far during our change of modes, that has been more
16 smooth than Unit 3 was. Clearly we are not excellent yet.
17 We understand this. Much more work needs to be done, but
18 our team is committed to becoming excellent once again,
19 proving that we really are a new Millstone organization.

20 CHAIRMAN JACKSON: Where do you stand on operator
21 workarounds?

22 MR. OLIVIER: Mike Brothers will cover that in his
23 presentation, or would you like to talk about that?

24 CHAIRMAN JACKSON: I'll wait.

25 MR. OLIVIER: Okay.

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1 COMMISSIONER MERRIFIELD: Chairman?

2 CHAIRMAN JACKSON: Yes.

3 COMMISSIONER MERRIFIELD: The question I have
4 goes -- you have a lot going on at one time. Right now
5 there's a proposal to bring Unit 2 back on, you're coming to
6 the point where you're going to be bringing Unit 3 in for a
7 refueling outage. That's a lot of work to be accomplished
8 at the same time. You'll have a lot of evolutions under way
9 at both units.

10 While you've concluded that Unit 2 is ready for
11 restart, I'd like you to comment a little bit on the
12 confidence you have in your organization to be able to
13 handle the challenge associated with both having Unit 2 come

14 back on line as well as Unit 3 coming off line for refueling
15 outage and trying to accomplish both of those activities,
16 very significant activities, at the same time.

17 MR. OLIVIER: Basically we can manage both
18 simultaneously. We have Mike Brothers, who is responsible
19 along with Alan Price, who was our Unit 2 Director for the
20 safe startup and operation of Unit 2. We have a Station
21 Director that later in this year will be responsible for
22 both units, who was responsible for Unit 3. We have a Unit
23 3 recruiting team put together that is dedicated solely to
24 all of the activities associated with refueling of Unit 3.
25 We also have dedicated engineering and maintenance support

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1 for the startup of Unit 2, and of course I am there and I
2 will overview both the safe startup of Unit 2 and the
3 refueling outage, so we have dedicated resources to each
4 activity.

5 COMMISSIONER MERRIFIELD: Just as a quick
6 follow-up, what kind of timeline have you established for
7 bringing Unit 3 back online? How long a fueling outage can
8 you anticipate at this point or have you assigned it a time
9 period?

10 MR. OLIVIER: Unit 3 will be a 45-day refueling
11 outage which starts in May, May 1st, and so it will complete
12 about the middle of June, and we will cover that more in the
13 presentation.

14 We also do a site-wide coordinating meeting every
15 day just to coordinate amongst the officers, directors and
16 managers the activities that will take place during the
17 course of the week and day on both Unit 2 and 3.

18 With Unit 2's restart readiness nearly complete we
19 recognize that we need to concentrate on a number of
20 important activities as we complete our transition from a
21 recovery mode to an operationally focused organization.
22 Since our last meeting we have completed the Director and
23 the Manager cascade selection and the selection of the
24 supervisors was put on hold to ensure no adverse impact on
25 the safe startup of Unit 2 or the preparations for the Unit

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1 3 refueling outage.

2 When complete, the results of this effort will be
3 a truly Millstone team. The remaining recovery officers and
4 other personnel all have departure dates and turnover
5 strategies in place. The target exit date for the recovery
6 teams will be by the end of June.

7 Now if necessary we will keep them longer but
8 their present target date is by the end of June.

9 CHAIRMAN JACKSON: That's your retirement date?

10 MR. OLIVIER: Yes. Yes. The Millstone Station
11 Director when the realignment is complete will have
12 responsibility for both Unit 2 and Unit 3 and we expect that
13 realignment will be complete on July 9th.

14 My major focus will be to ensure that the new
15 leadership structure is aligned into an effective and
16 integrated team to support operational excellence at the
17 station.

18 CHAIRMAN JACKSON: Let me ask you a quick
19 question.

20 MR. OLIVIER: Sure.

21 CHAIRMAN JACKSON: At the January meeting with the
22 Commission you indicated that some employees were raising

23 some concerns about the organizational realignment.
24 What feedback have you received lately in that
25 regard?

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1 MR. OLIVIER: We did get a number of issues about
2 the realignment which were associated with process issues,
3 people that basically either didn't agree or understand the
4 process and right now, quite frankly with the realignment,
5 because of our preparations for the restart of Unit 2 and
6 also with the RFO coming on Unit 3, the realignment in most
7 people's eyes has taken somewhat of a back burner.

8 They are looking forward however to completing it
9 because we have received a lot of value from the realignment
10 in putting together a Millstone team. I think it
11 significantly improved the efficacy of the site and people
12 are now looking forward to go into the future with the new
13 Millstone team to achieve excellence as a dual unit site.

14 CHAIRMAN JACKSON: Okay.

15 MR. OLIVIER: Since we have talked the last time
16 in our January 19th meeting, Unit 3's operating performance
17 has improved. As a result of the work that we did in our
18 December outage and also a refocusing of our online work,
19 Unit 3 is operating at a very high capacity factor. It has
20 been online over 100 days and we have had very few
21 challenges to our operators.

22 The errors are decreasing. Our ownership has been
23 clearly established in Unit 3 and we have reduced the number
24 of challenges to the operators during this period.

25 CHAIRMAN JACKSON: Now I have to understand what

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1 you mean by challenges. You did have four reactor trips and
2 one forced outage, so what do you mean when you say
3 challenges to the operators?

4 MR. OLIVIER: The challenges are entering into 303
5 conditions due to equipment that had reliability problems.
6 We had a number of valves, which are manually operated
7 valves, that were leaking, by example, to isolate our
8 condensate demineralizers. It was difficult for operations
9 to get in isolation when they decharged the demineralizers.

10 During our outage in December we did major
11 overhauls of many of those valves. The remainder of those
12 will be complete in the upcoming refueling outage, so we
13 looked at reducing annunciators, out of service
14 annunciators, operator work-arounds throughout the site. As
15 a result of that we have had less challenges to the
16 operators.

17 CHAIRMAN JACKSON: Explain the four reactor trips
18 and the one forced outage.

19 MR. OLIVIER: Explain the four reactor trips?
20 Well, we had an automatic trip for the MSIV, main steam
21 isolation valve, failure. We had an automatic trip due to
22 the seawater -- not seawater intrusion but a seaweed buildup
23 on the screenhouse. We had two manual trips associated with
24 a chloride intrusion into the hot well.

25 CHAIRMAN JACKSON: And the forced outage?

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1 MR. OLIVIER: And the forced outage was actually
2 an outage prior to my coming here and that was to do with
3 the aux feedwater valve, an isolation valve that was
4 leaking.

5 CHAIRMAN JACKSON: So you don't consider any of

6 those challenges, you are saying?
7 MR. OLIVIER: Actually I am speaking from the
8 point of December to now.
9 CHAIRMAN JACKSON: Okay.
10 MR. OLIVIER: Yes. Yes, those were certainly
11 challenges, which is why we became much more aggressive in
12 reducing operator challenges.
13 CHAIRMAN JACKSON: So you mean on your watch the
14 challenges have been reduced?
15 [Laughter.]
16 MR. OLIVIER: You could say that.
17 Now we understand that as we move towards our
18 refueling outage that we have to balance, as Commissioner
19 Merrifield said, the startup of Unit 2, the refueling
20 outage, and also ensure safe operations on Unit 3 and that
21 has the full attention of the organization including myself.
22 Our RFO 6 starts on May 1st, as I said earlier.
23 It is a 45-day outage. I think the key thing here is that
24 we are committed to do a safe, high quality outage. We will
25 not be driven by schedule and we will do it right.

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1 Preparation is underway. After a late start we have
2 identified the appropriate scope of work to further improve
3 our reliability and reduce our operator challenges.
4 CHAIRMAN JACKSON: Are you going to reduce your
5 backlog?
6 MR. OLIVIER: Yes, we are. Yes, we are.
7 Absolutely. We want to start up out of that outage in a
8 very clean state with the plant.
9 Now when I was here the last time we talked about
10 the need to do process improvements and we are putting
11 together a very aggressive benchmarking and process of
12 improvement plan for the second half of 1999. We have
13 received very clear messages across the site from our people
14 that they want to see further improvements in our processes
15 and also through the culture survey.
16 When I meet with our employees, which I do on a
17 regular basis, having small department meetings, one of the
18 key messages is improved processes make you more efficient.
19 Now to do this we are going to utilize
20 crossfunctional teams to do benchmarking, design, and
21 implementing of the processes. The people that use the
22 processes will be the people that will benchmark them and
23 make the process changes and this is a departure from the
24 past.
25 Now when Bruce Kenyon came here, he established

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1 seven critical success objectives for the recovery of
2 Millstone Station.
3 COMMISSIONER MERRIFIELD: Before you get to that,
4 I have a question about the organizational alignment and the
5 effect on the workers. You are talking -- you know, when
6 you resume, when you are approved to resume operation on
7 Unit 2, it's your intention to continue with the
8 organizational alignment. Now later on in your slide you
9 talk about Focus '99 --
10 MR. OLIVIER: Yes.
11 COMMISSIONER MERRIFIELD: -- and issues associated
12 with the restructuring of the electrical generating market
13 as a result of deregulation and other activities in
14 Connecticut and the rest of your market.

15 How are you and what are you doing to ensure that
16 the issues related to reorganization in NU as well as issues
17 associated with Focus '99 and electricity restructuring
18 aren't going to have an impact on the employees at the site
19 given the activities that are on their way both at Unit 2
20 and Unit 3?

21 MR. OLIVIER: Well, one of the things that we are
22 doing on a regular basis is communicating with the employees
23 and communicating with them what restructuring means and
24 also communicating to them how other successful plants have
25 gone through restructuring and have also achieved high

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1 performance.

2 We are going to complete our realignment, get our
3 realignment in place, achieve a level of stabilization, and
4 after we have achieved that level of stabilization then we
5 will look at moving the plant forward in terms of major
6 changes in the processes and benchmarking.

7 We believe that the best way to approach
8 restructuring and industry deregulation is to move towards
9 operational excellence, and that is benchmarking ourselves
10 in the key areas and also making the major process changes
11 and having our people involved in all aspects of the change.
12 I think that is the key solution to make this a success.
13 That is something I have done in my previous plant. I was
14 getting the people involved at all levels into the changes
15 we were going through, so there is ownership and buying in
16 and an understanding of why you are making that change and
17 that they can be successful in a restructured environment.

18 MR. MORRIS: What we have learned, and I think it
19 is just basic human nature and clearly part of the safety
20 conscious work environment, if you take a competitive
21 environment and try to, from a management perspective, tell
22 a group of employees this is what has to happen, versus if
23 you lay out a competitive environment that clearly is going
24 to unfold across this nation, and ask the employees to help
25 you figure out how to be competitive, it is a huge

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1 difference in the perspective of people and I hope you
2 appreciated what Lee mentioned when he said that the
3 employees have come to us and said make the processes better
4 so that we can do things more quickly and more cost
5 effectively so that we can remain competitive.

6 That is very different from me or Bruce sitting at
7 the Headquarters and saying you need to get the cost down by
8 "x" percent. It is a total different feeling and it is the
9 foundation of the safety-conscious work environment, because
10 the people have huge ideas, great ideas, cost effective
11 ideas, and they want to be listened to, and they want to
12 have those good ideas implemented, so it is a huge
13 difference.

14 MR. OLIVIER: I think the other aspect too is the
15 employees, when we talk to the employees, they are not
16 afraid of restructuring, but what they do want is to be able
17 to participate in positioning Millstone during that
18 restructuring and that is a commitment we have given them.

19 So in regards to the seven critical success
20 objectives, we have met these at this time. Our focus now
21 must be to build on these to accomplish our accomplishments
22 so that our commitments to achieve nuclear excellence
23 translates into becoming the best of the best in our
24 industry.

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1 key areas will enable us to fully achieve long-term
2 excellence at Millstone. These three key areas are
3 improvements in our people, our processes, and our plant
4 material condition.

5 As the Chief Nuclear Officer I will be building on
6 the progress reflected in Bruce Kenyon's seven critical
7 success objectives for recovery and will be focusing on
8 moving to excellence by supporting our people, fixing our
9 processes and continuously upgrading the material condition
10 of our plants. This is a concept and a philosophy that is
11 used in the best utilities and the best nuclear power plants
12 in the country.

13 Though we have successfully addressed our 16 key
14 site issues, our programs and processes now must undergo
15 continuous improvement to reach long-term excellence. We
16 also know that the key to this effort is our people at
17 Millstone. When I arrived at the site I told the team that
18 I wanted to establish an environment of inclusion and
19 collaboration both internally and externally, and as Bruce
20 mentioned earlier with the implementation of this
21 re-monitoring system I think that is a good example of
22 listening to the people in the community and we are going to
23 install this remonitoring system later this year.

24 Now I firmly believe that we will achieve
25 excellence by getting the entire workforce involved in

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1 overcoming our challenges. We are going to focus even more
2 on listening to what our people have to say and then acting
3 on the ideas and suggestions that they will make so we can
4 achieve nuclear excellence at Millstone Station going
5 forward.

6 We have already made significant improvements in
7 all three -- in our people, all of the people on site have
8 attended the Setting the Winning Standard Workshop, which is
9 a workshop that teaches the values of teamwork, shared
10 vision and a mission statement.

11 We also have had major improvements in our
12 processes. The corrective action process was a process that
13 was troubled in the past. That process is working rather
14 well now and we are ready to make the next stage of
15 improvements in that.

16 We have a detailed program being put together now
17 for both benchmarking and process changes and we had
18 selected systems that will be the first processes rather to
19 undergo benchmarking and processes changes.

20 Our plant material condition is we have set
21 aggressive targets which Mike Brothers will talk about in
22 his presentation and we have a goal, to continue to reduce
23 the challenges to operators by improving the plant material
24 condition of both Unit 2 and Unit 3 and the support systems.

25 COMMISSIONER DIAZ: Excuse me. I am going to

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1 borrow something from Chairman Jackson since, you know, we
2 have been hearing it for two and a half years now --

3 CHAIRMAN JACKSON: Four.

4 COMMISSIONER DIAZ: There's a lot of statements in
5 here and I think that's fine. It shows your philosophy and
6 your direction and your goals and where you are going, but

7 the question always comes, you know, do you have metrics for
8 these statements --

9 MR. OLIVIER: Yes.

10 COMMISSIONER DIAZ: -- and if any one of us, and I
11 am sure maybe the Staff will be able to answer this for any
12 one of the statements somebody could come and say, yes, the
13 statement is substantiated by some metrics. Is that --

14 MR. OLIVIER: We have extensive metrics and we
15 will be putting together metrics on process improvements but
16 extensive metrics on backlog, plant material condition
17 issues, operator work-arounds, and so forth, very extensive.

18 COMMISSIONER DIAZ: I probably have preempted half
19 of Chairman Jackson's questions but --

20 CHAIRMAN JACKSON: Wishful thinking.

21 [Laughter.]

22 MR. MORRIS: We thank you if you have.

23 [Laughter.]

24 CHAIRMAN JACKSON: Doesn't work that way. Since
25 you did talk about -- thank you for segue-ing into metrics.

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1 I noted that there was a chart that had to do with success
2 objectives and one of them was effective self assessment,
3 and I guess I am interested in what that means and whether
4 you could give me some examples of improvements that have in
5 fact occurred as a consequence of effective self-assessment.

6 MR. OLIVIER: I think there's several good
7 examples.

8 One good example is the self-assessment that we
9 did, a big self-assessment that we did back in '97, which
10 was on our operator training programs. As a result of that
11 self-assessment we found widespread issues with that, which
12 we took corrective action and our operator training programs
13 now are significantly improved. We have received very
14 favorable feedback both from NRC inspections of our license
15 operator requalification training classes.

16 We received favorable evaluations from INPO, and I
17 think most importantly our operators feel that training has
18 never been better than it is now. That is a good example of
19 self-assessment.

20 We did a very similar self-assessment in the
21 technical training organization --

22 CHAIRMAN JACKSON: So your training program is no
23 longer on probation?

24 MR. OLIVIER: We have a meeting with the
25 accreditation board on I believe it is May 19th --

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1 MR. MORRIS: 20th.

2 MR. OLIVIER: And at that time we believe that we
3 will come off of the probation status.

4 MR. MORRIS: We had a presentation to our full
5 Board of Trustees yesterday on the issue of training and
6 where we stand. We are still in probation and surely hope
7 that at this meeting soon to happen that that's changed, but
8 there was a critical statement made, a presentation was made
9 by Chris Shores, who is the Unit Director and Denny Hicks,
10 who is the Training Director and there has been a
11 breakthrough in the training issue at the station where the
12 line organization is convinced that the trainers are now
13 being helpful, that they are learning, that it is a
14 constructive use of their time, and as you know, until you
15 have that breakthrough you have a barrier to learning
16 because you are always believing that you are wasting your

17 time and it has been a pretty substantial change. We hope
18 that INPO recognizes that we hope that they would remove
19 those training programs from probation.

20 CHAIRMAN JACKSON: Does that breakthrough relate
21 to a specific area of weakness that INPO had identified,
22 that the accrediting board --

23 MR. MORRIS: No. Actually when the accrediting
24 board came out they noticed some major improvements from a
25 historic process and they saw the germination of planted

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1 seeds in that regard, and what they have asked us to do is
2 to continue to monitor that process as we go forward and I
3 do think that it came closer to full bloom yesterday, when
4 you see the Director of the Unit Operations and the Director
5 of Training doing a handoff in a complementary approach to
6 this is what they have taught us and this is what we have
7 learned from them -- Training saying they are learning from
8 the line -- the line saying that they are really getting
9 value out of the training, so INPO is on an evaluation that
10 says has that progress sustained and grown, and if that is
11 the case we again are hopeful that they would remove that
12 probationary treatment.

13 MR. OLIVIER: I think two more good examples of
14 self-assessment is our work control schedule adherence,
15 which had been low, approximately 60 to 70 percent. We did
16 a major self-assessment on that and improved some of the
17 processes that went with it and now we are maintaining the
18 schedule adherence of over 90 percent, which gets to the
19 plant material condition, the third "P" in terms of reducing
20 the backlog. That is another good example.

21 We also have had good self-assessments in human
22 performance on Unit 3 and Unit 2, which have changed the way
23 we do our business in terms of danger tagging, having peer
24 evaluations for danger tagging is an example, so there's
25 been major changes due to self-assessment.

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1 CHAIRMAN JACKSON: Have you considered having an
2 augmented or assisted self-assessment in your 17th area,
3 namely engineering quality?

4 MR. AMERINE: Two things. One is that we just
5 completed a major self-assessment in the engineering area
6 with respect to the adherence to the design change manual
7 and that report is not issued but I have a draft of it in my
8 briefcase and there were some lessons learned there that we
9 plan to incorporate into training I mentioned earlier.

10 In addition, Lee was talking about process
11 improvements. That is one of our strategic plans within the
12 engineering envelope that is a subset of the process
13 improvement effort that Mike Brothers is the executive
14 sponsor for. I have INPO scheduled to come in and look at
15 what we are doing in the month of June to help with that
16 effort.

17 CHAIRMAN JACKSON: Okay.

18 MR. OLIVIER: To get us started on the right path
19 to nuclear excellence, we have prepared what we call Focus
20 '99, and we sent you a copy of this booklet, which is the
21 particular one here. You have a copy in your briefing book.

22 Focus '99 was specifically designed to let our
23 people know exactly what was expected of them for the
24 balance of this transition year and Focus '99 is not a grand
25 plan for years to come. It also dovetails in with our

1 business plan and our operational plan. It was distributed
2 to every member of the Millstone site including all of our
3 permanent contractors, mailed directly to their homes. We
4 have received much positive feedback about this type of
5 distribution and also we did a series of meetings throughout
6 the site.

7 We did station update meetings of several hundred
8 people at a time with a very detailed slide presentation to
9 go through it, and also lots of small group meetings that
10 have been conducted between myself, the other officers, and
11 the Directors.

12 I would like to just touch on three key items in
13 Focus '99.

14 The first one is safety. Focus '99 constantly
15 reinforces the importance of safety in all that we do to
16 achieve excellence at Millstone Station. Throughout
17 Millstone today you will find the senior team commitment
18 that's signed by myself and all of the other officers, and
19 that senior team commitment, the first item on there, is
20 that we place safety first in all that we do.

21 We know and are continually communicating to all
22 members of the Millstone team that the most successful
23 plants, those that have achieved nuclear excellence, all
24 have strong safety records, and they are also strong in
25 safety, reliability, cost and regulatory reputations.

1 Now Focus '99 defines the actions or stakes in the
2 ground we have set to be on the path to excellence. This
3 phrase reflects my strong feeling that the team has to know
4 exactly what we need to do to be ready for the industry
5 changes that we face in the future.

6 It also puts perspective on the challenges of
7 electric restructuring and puts them into a proper
8 perspective for the entire Millstone team. We recognize
9 that this is a sensitive area and we are communicating to
10 our people again that safety and excellence go hand-in-hand,
11 especially in the competitive environment because shortcuts
12 are very, very expensive.

13 Management is committed first to listen to the
14 comments and suggestions of our workforce. After all, they
15 are the people that are most familiar with what needs to get
16 done, and later this year we will have other site-wide
17 involvement teams put together to go after the key result
18 areas that we need to change. These are processes and other
19 issues on the site.

20 Beyond listening, we are committed to acting on
21 these good ideas no matter where in the organization that
22 they come from.

23 Now in my closing remarks, I would like to say
24 really briefly that we are now closing in on the most
25 unprecedented recovery in the history of our industry and I

1 can assure you that the people of Millstone have learned the
2 lessons of the past and now we are clearly focused on
3 achieving operational excellence, becoming the best of the
4 best and we really believe and I believe personally after
5 being there six months that the Millstone Station has truly
6 changed. It is a new Millstone Station.

7 CHAIRMAN JACKSON: Let me ask you this kind of
8 summary question. You believe this has been the most

9 unprecedented recovery in the history of the industry.
10 Other plants have shut down for multi-year shutdowns and
11 they have had to work through a number of issues and have
12 spent a lot of money. What has made this the most
13 unprecedented recovery?

14 MR. OLIVIER: In my mind there were two issues. I
15 think the restoration of trust with the employees I think
16 was a significant effort. I think re-establishing the
17 safety conscious work environment that I think was really
18 damaged in the past is different than any other plant that I
19 have known, at least of the magnitude of what we had at
20 Millstone Station.

21 Also, the recapturing of the licensing and design
22 basis effort, the conduct of the independent corrective
23 action verification program, bringing in two totally
24 independent contractors to go through and reverify and make
25 sure that we do have compliance with design and licensing

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1 basis and they are consistent with the plant configuration
2 and the procedures and guidelines that we operate the plant
3 with.

4 I think that has been a truly huge effort, and I
5 think it has paid off.

6 CHAIRMAN JACKSON: Mr. Kenyon looks like he wants
7 to say something.

8 MR. KENYON: I would just like to emphasize one
9 aspect of Lee's answer. I think the challenge of all of us
10 who came to Millstone and coming into an environment that
11 was from a relationship perspective between employees and
12 management was extremely difficult, and the trust
13 relationship that you would want to exist between employees
14 and management had been damaged very badly, and thus the
15 challenge of re-establishing that relationship, which you
16 can't legislate. You have to earn it. Doing that in
17 conjunction with all that we had to do to restore confidence
18 in the licensing and design basis and deal with the issues
19 that came out of that, I think was truly a monumental
20 effort, and I think that is what distinguishes this recovery
21 from any others.

22 CHAIRMAN JACKSON: Okay.

23 MR. BOWLING: Chairman Jackson, if I might add
24 some perspective in addition to Bruce and Lee's comment
25 about the loss of trust in management.

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1 I would like to also add that we had really lost
2 your trust as well and also the trust of the public, so I
3 think from my perspective what has made this unprecedented
4 is not only having to restore the trust of our employees but
5 having to restore your trust and to restore the trust of the
6 public.

7 MR. OLIVIER: Now I would like to turn it over to
8 Marty Bowling, who will discuss the Unit 2 Corrective Action
9 program and also give us the results of the independent
10 corrective action verification program for Unit 2.

11 MR. BOWLING: Thank you, Lee.

12 Today I would like to provide you our basis for
13 closure of the ICAVP order for Millstone Unit 2. The bases
14 are founded on our ability to both proactively identify and
15 effectively resolve issues.

16 My presentation will cover two of the eight
17 restart affirmation criteria provided in our briefing book,

18 specifically Criterion 2, restoring compliance with the
19 design and licensing basis and Criterion 4, developing
20 effective programs to identify and resolve problems.
21 This slide provides our self-assessment of the
22 Unit 2 corrective action effectiveness for restart and
23 focuses us on the attributes that make up the key elements
24 of problem identification, evaluation, resolution and
25 effectiveness.

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1 Overall, Millstone Unit 2 is now demonstrating
2 effective corrective actions. From a programmatic
3 standpoint, problem identification, the first element, is
4 characterized by a low threshold, self-identification by the
5 line, and a strong self-assessment program.

6 This slide shows the low threshold for problem
7 identification for Unit 2, which has been continuously lower
8 during the past three years. That is the number of
9 condition reports written each year has increased. As you
10 can see, Millstone Unit 2 is identifying about 4,000 new
11 issues per year. This should be compared to 1992, in which
12 there were less than 200 issues identified.

13 The number of condition reports submitted per year
14 directly reflects the lower threshold for problem
15 identification and increased emphasis on self-assessment.

16 Millstone 3 has also showed the same trend. What
17 is expected -- the number of condition reports identified
18 for Unit 3 have not been at the same rate after it restarted
19 last July as it was during the recovery. However, the rate
20 of identification projected to be about 3,000 per year is
21 still impressive and underscores the fact that a strong
22 self-assessment culture continues to exist at Millstone.

23 As a comparison the rate of problem identification
24 at Virginia Power's North Anna or Surry station is only
25 about half the Millstone 3 rate.

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1 This slide shows that most of the issues are being
2 self identified. Our goal has been to self-identify 90
3 percent of the issues. That is only 10 percent are
4 identified by the NRC or actual events. Overall, we are now
5 consistently meeting this goal and therefore we have
6 recently raised the goal to 95 percent.

7 CHAIRMAN JACKSON: So your definition, I just want
8 to be sure, of self-identification means non-NRC identified
9 and/or not event identified?

10 MR. BOWLING: That is correct.

11 Problem evaluation, the second element, is
12 characterized first by timely operability and reportability
13 reviews, usually within 24 hours, and second, by timely
14 assignment of corrective actions. Our criterion is to
15 assign corrective actions within 30 days and we are meeting
16 this criterion. It is currently about 26 days.

17 CHAIRMAN JACKSON: What about the work-off of the
18 corrective actions?

19 MR. BOWLING: This is strongly influenced by the
20 large amount of corrective actions that have to be done
21 during this recovery, so we have this in two categories.
22 One is to assign the corrective action. The other is to
23 complete the corrective action.

24 The corrective action required for restart of the
25 unit has essentially been completed. Mike Brothers will

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1 give you the specific remaining but tens of thousands of
2 corrective actions have been completed during this recovery.

3 This slide shows that we are also sustaining a
4 high quality rating for condition report evaluations for
5 root causes and assignment of corrective actions. We
6 evaluate quality on a scale of zero to 4 with an average of
7 3 -- no significant quality issues being the goal. We have
8 consistently met this goal as well.

9 CHAIRMAN JACKSON: How do you arrive at the
10 scoring and what is good and what is not good?

11 MR. BOWLING: We have a management review team
12 which reviews the line's determination of the root causes
13 and assignment of corrective action and this team is in
14 place permanently so that it looks at all of the corrective
15 actions. They have a good baseline.

16 CHAIRMAN JACKSON: Do you have any benchmarking
17 and is there any industry agreed-upon methodology for --

18 MR. BOWLING: I am not sure there is for this.
19 This is one of the initiatives that we undertook in the
20 recovery and although the evaluation of quality is
21 qualitative or subjective, by having the same team look at
22 many, many corrective actions you build in consistency, and
23 so on this scale "4" would be excellence, "3" is only minor
24 administrative problems, and that has been our goal, to have
25 high quality from a technical standpoint and very few

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1 administrative issues.

2 Probably resolution, the third element, is
3 characterized by strengthening the site program areas
4 identified as key issues. The 16 key issues, and really 17
5 as you know, that have been discussed in our briefing book
6 and earlier by Lee, are now satisfactory for the restart of
7 Unit 2 and continued operation of both Unit 2 and Unit 3.

8 Problem resolution effectiveness is also measured
9 by addressing the restart backlogs in a technically sound
10 fashion by having a low percentage of overdue corrective
11 actions and by resolving long-standing and repetitive issues
12 that have been identified as significant issues in the NRC's
13 manual chapter 0350 process.

14 CHAIRMAN JACKSON: Are you satisfied with your
15 restart backlog?

16 MR. BOWLING: The restart backlog is essentially
17 eliminated.

18 CHAIRMAN JACKSON: So it is gone?

19 MR. BOWLING: Yes. All the things that were
20 needed to restore operability, restore compliance to design
21 and licensing basis have been completed with a few
22 exceptions which Mike Brothers will address.

23 The restart backlogs are substantially complete,
24 as I just mentioned. The percentage of overdue corrective
25 actions are less than our acceptance criteria of 3 percent,

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1 and as was done for Unit 3, with the Unit 2 restart this
2 criterion will be tightened from 3 percent to 1 percent.

3 Lastly, the technical closure packages for the
4 manual chapter 0350 significant items, have been submitted
5 to the NRC for closure.

6 Corrective action effectiveness, the final
7 element, is assessed by our own internal self-assessment
8 programs and by nuclear oversight. Performance indicators
9 have been developed and are being trended to provide early

10 recognition of performance changes. Our overall assessment
11 as well as the NRC inspections such as the OSTII and the
12 40500 have also assessed and confirmed the effectiveness of
13 the corrective actions programs.

14 I want to now elaborate on the effectiveness of
15 the Configuration Management Program, the CMP. The effort
16 involved to perform the Millstone Configuration Management
17 Project, which restored compliance with the design and
18 licensing basis, and our response to the ICAVP findings has
19 been comprehensive. For Millstone Unit 2, 61 maintenance
20 rule systems, 19 topical areas and over 100 programs have
21 been restored to compliance.

22 The ICAVP contractor and NRC reviews of our work,
23 which have been ongoing for almost two years, have now been
24 satisfactorily completed. Both the ICAVP contractor and the
25 NRC have now confirmed that the Millstone Unit 2 CMP was

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1 effective in restoring compliance with the design and
2 licensing basis.

3 As a result of the ICAVP review, there were no
4 confirmed Level 1 or 2 DRs, the highest safety significance
5 levels, and the corrective action for the Level 3 DRs, the
6 lowest safety significance, have now all been completed.
7 Also, 44 percent of the non-restart ICAVP DR corrective
8 actions have also been completed as of this date.

9 I do need to make note of the fact that Unit 2 did
10 have 75 confirmed Level 3 DRs. As you know, this result is
11 greater than the 22 DRs that were confirmed for Unit 3.
12 There are two primary reasons I believe for the higher
13 number on Unit 2 than on Unit 3.

14 First, Unit 2 is an older vintage plant with a
15 less well documented design and licensing basis. Second,
16 because of resource limitations, several technical programs
17 were not complete when the ICAVP started, resulting in
18 Parsons finding items before we did.

19 Examples of technical program areas not yet
20 complete at the time Parsons initiated the ICAVP review were
21 MOVs, electrical separation, environmental quality and high
22 energy line break.

23 As part of the comprehensive approach, the CMP
24 scope on Unit 2 was expanded based on ICAVP findings and
25 lessons learned from Unit 3. The key scope expansion areas

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1 are shown on this slide.

2 From the Unit 3 CMP and the ICAVP reviews by
3 Sargent & Lundy a number of important lessons were applied
4 to Unit 2. This included performing integrated system
5 reviews which looked at system to system interactions rather
6 than just the vertical slices, addressing operational
7 experience applicability from NRC information notices,
8 ensuring that the licensing basis in Section 6 of the
9 technical specifications -- these are the administrative and
10 program requirements -- were properly implemented, ensuring
11 that the commitments of NUREG-0737, the post-TMI
12 requirements were still being complied with, and finally,
13 reviewing the engineering design modification packages to
14 ensure quality and functionality.

15 I am very pleased to say that there were not any
16 significant new issues found from these lessons learned from
17 Unit 3 that were applied to Unit 2.

18 CHAIRMAN JACKSON: Are there any crosconnects
19 between the two plants that need to be evaluated as part of

20 the ICAVP?

21 MR. BOWLING: The major one is the effect of
22 certain design basis accident analysis in terms of radiation
23 releases from one unit on the other. Those were thoroughly
24 evaluated as part of the safety analysis but in terms of
25 hardware systems, Mike?

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1 MR. BROTHERS: Between Unit 2 and Unit 3 they are
2 minimal. However, between Unit 2 and Unit 1, primarily in
3 the electrical area we have some interdependence that was
4 evaluated as part of CMP for Unit 2.

5 CHAIRMAN JACKSON: Let me take you back to
6 something. It really has to do with backlogs again and
7 restart backlogs.

8 You revised your commitment in a letter to NRC
9 associated with the completion with any ICAVP discrepancy
10 report corrective actions. You use risk insights, I assume,
11 in making these -- in prioritizing this, is that correct?

12 MR. BOWLING: Right. The backlog that we're
13 referring to in our revised commitment is the backlog that
14 was deferred from the restart of Unit 3. Now that backlog I
15 think in order to properly characterize it in terms of risk
16 and safety significance was all below the threshold of
17 meeting or requiring compliance to design and licensing
18 basis. It was all below that, so for example the
19 administrative findings from Sargent & Lundy was Level 4s
20 and other non-risk, non-maintenance rule maintenance work
21 orders and design issues that did not have any risk or
22 safety significance, at least at a level above design and
23 licensing basis, but that is the population that we are
24 talking about.

25 CHAIRMAN JACKSON: Now you know in many plants

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1 circulating water causes a problem, and you had a manual
2 trip because of clogging of the circulating water screens.

3 MR. BOWLING: Right.

4 CHAIRMAN JACKSON: And my understanding from the
5 Staff is that at least a contributing factor had to do with
6 an inability to reverse the screens, and that had to do with
7 some degraded equipment that was pending repair.

8 MR. BOWLING: I think the lesson learned from that
9 specific example and then several others that we had was
10 that we were dealing with a rather large deferred backlog
11 and in the first six months after restart, significant
12 progress was made in reducing the bulk numbers of that
13 backlog, but clearly it was taking resources away from the
14 operational focus and I think that was one of the reasons
15 for the challenges we were having in the second half of '98,
16 so we needed to target that backlog with what was really
17 important, and that is what we have done with the revised
18 commitment, so the bulk may be deferred but those key things
19 that would challenge, and that is from our perspective what
20 we call not having a good operational focus, that that is
21 what we now have our resources focused on.

22 CHAIRMAN JACKSON: You say you have drawn that
23 lesson from this event and others?

24 MR. BOWLING: Yes, the lesson from the first few
25 months of operation after Unit 3 went into service, even

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1 though we made substantial progress in reducing the backlog

2 as we had committed to.
3 MR. AMERINE: Chairman Jackson, if I might add to
4 that, when Commissioner Dicus and Commissioner Merrifield
5 visited Millstone I gave them the projections for a majority
6 of that backlog, which is the engineering backlog. I am
7 happy to report that for Unit 3 we are on track. Just since
8 that time we have gone from, in the design engineering
9 technical support area, we have gone from a roughly 1800
10 down to 1400 and the DR portion of that, that coming out of
11 Sargent & Lundy, has gone from approximately 500 down to
12 about 350, so we are right on track with the projections
13 that I showed you at that time in Unit 3.

14 In the projections I showed you for Unit 2, of
15 course, was what we would expect the backlog to be at the
16 time of startup, and in the area of design, engineering and
17 technical support we are probably going to be about 400
18 under what we thought it would be, and I think that is
19 simply one, because of the extra time involved, and the
20 other one because again the lessons learned from Unit 3,
21 there's been a focus on closing things as soon as they come
22 up if at all possible.

23 CHAIRMAN JACKSON: Actually, you know, what is of
24 less import to me than your numerical quotes is what
25 undergirds them and I bring up circulating water because

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1 that in many places, you know, where you have debris, you
2 have grass intrusion, whatever it is, and particularly it is
3 exacerbated whenever there's storms or high winds and so
4 forth, and so an issue to me is being able to have an
5 operational and a risk focus and a focus on those things
6 that would cause operational challenges, and not numbers.

7 I mean you could have, you know, 1500 things and
8 you could have worked down 1300, and in that last 200
9 there's one thing that has the greatest risk and/or
10 operational significance, and that is what I am interested
11 in hearing you say but I am not hearing you say it.

12 That is of concern --

13 MR. BROTHERS: Chairman, if I could add --

14 CHAIRMAN JACKSON: Hold on. Let him speak and
15 then we'll let him speak -- let you speak.

16 MR. OLIVIER: As a result of the operator
17 challenges that we had with seaweed and some of the other
18 issues, we did implement some major changes.

19 Number one, the first one, is -- it gets back to
20 what we talked about earlier, and that is listening to the
21 people, especially the shift manager, the operations crews,
22 the PEOs.

23 One of the things we did in the December outage is
24 we went to them and said what needs to get fixed? You are
25 the right people to tell us what needs to get fixed. We

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1 worked down a lot of that backlog and you can see the
2 results of how well the plant is running now.

3 The other thing we did is we set up daily meetings
4 for Unit 3, which is chaired by the Station Director, but
5 the shift manager opens that meeting and talks about plant
6 conditions and what his needs are of the site to support
7 safe and reliable operations.

8 Mike Brothers has put together an aggregate impact
9 indicator and it did a lot as far as listening to the
10 organization and not just relying on KPIs.

11 CHAIRMAN JACKSON: Okay. Mr. Brothers?

12 MR. BROTHERS: Yes, thank you. If I could have
13 back up Slide Number 41, Dick, please.
14 This slide here is demonstrating exactly what
15 Marty and Lee have been talking about. This is the Unit 3
16 backlog. June 1998 was our final submittal for the
17 post-restart backlog status for Unit 3. As you can see, in
18 the bulk numbers dramatic progress has been made, but what
19 was happening in this, and I have talked about it and we
20 have adjusted the commitment for Unit 2 is in the key areas
21 there -- the small numbers, temporary mods, operator
22 workarounds, control room deficiencies -- you are not seeing
23 a whole lot of movement, okay?
24 What was happening is that our commitment on low
25 significance backlog was actually distracting us from

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1 working on those things that have impact to operations, so
2 in December, following the automatic trip from MSIVs, we put
3 together a unit team with several SROs on it called the
4 UDIC, which goes back to, evaluates the backlog once again
5 and repriorizes that based upon operational impact.
6 We then went and talked to the region and
7 subsequently submitted a letter asking for a change in the
8 commitment with this in mind. We think it's the right thing
9 to do.
10 CHAIRMAN JACKSON: Okay.
11 COMMISSIONER DIAZ: If I may jump on that and I am
12 going now to the bottom line, I can see that you have
13 developed an extraordinary set of what I would call overview
14 and assessment devices that are above the line workers, but
15 like Chairman Jackson was saying, the bottom line remains
16 can the people on the line perform at the level that is
17 adequate, and that is one thing that is critical for the
18 Commission to know, that it's not all the organization.
19 Those are fine. You have done obviously a good job in
20 providing layers to assess and move and correct, but is the
21 core group of people at Millstone capable of performing the
22 functions as they should? That is a key question.
23 The second thing is you all appear to be quite
24 satisfied with the progress and my question is are the
25 workers satisfied with the progress? If you could answer

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1 those two questions --
2 MR. OLIVIER: I think in terms of the people, in
3 terms of having the motivation, the desire, the skill set,
4 you know, they've got it. These people are top-notch
5 nuclear professionals. They have also been through a rough
6 time. They have been through a rough two to three years.
7 They never want to go back there again. They want to be
8 known as one of the best dual unit operating sites in the
9 country.
10 When they look at themselves they compare
11 themselves to ANO, because that's a plant, that's a site
12 where there's two large plants, totally different design,
13 that end up producing world class numbers over and over
14 again. They want to be like ANO. they want to benchmark
15 against facilities like that. They really do want to move
16 forward, so I think in terms of the skill set, the desires,
17 the motivation, it is clearly there, perhaps here more than
18 any other site that I have visited.
19 The line organization and executive management is
20 supporting our people and have told our people that they are

21 going to be part of the solution, part of the change
22 process, so I think we have alignment with ourselves and the
23 workers.

24 COMMISSIONER DIAZ: Do they believe it?

25 MR. OLIVIER: They believe it. In fact, I had a

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1 meeting -- I meet with the various organizations early in
2 the morning, 7 a.m. -- I had a meeting with 80 to 100 people
3 in maintenance on Friday morning and we talked just about
4 this issue. We talked about safety-conscious work
5 environment, how they feel about safety-conscious work
6 environment. How do they feel about Focus '99 and the
7 direction that the plant is going in? -- and we got a lot
8 of good feedback, you know, some of it critical but most of
9 it on board and aligned with where we want to go.

10 COMMISSIONER DIAZ: Okay. Are there lessons
11 learned from Unit 3 regarding not giving too much attention
12 to very low items? Are they being now used for the startup
13 of Unit 2?

14 MR. OLIVIER: We have taken the lessons learned
15 there with, again as part of our commitment change to NRC we
16 have included Unit 2 as well, and we are putting together a
17 key group of people of operations, engineering, maintenance
18 people to make sure that when we go back on line that the
19 online maintenance is prioritized appropriately to reduce
20 the risk to reliability and challenges to the unit.

21 MR. BOWLING: Okay. Let me pick up the briefing.

22 The next item has to do with the Technical
23 Requirements Manual, which is a document where the technical
24 specifications are relocated when no longer required and in
25 some cases for further clarifying existing technical

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1 specification requirements.

2 We did have one significant finding by the NRC
3 with one of these clarification of requirements for allowed
4 outage time of the auxiliary feedwater system. As a result
5 the NRC cited this as a Level 3 violation. We have taken
6 comprehensive corrective action to address this violation.
7 In addition, we reviewed the entire Technical Requirements
8 Manual for similar problems. We did not find any.

9 Finally the scope was expanded due to the ICAVP
10 contractor findings in the area of single failure
11 assumptions and control of safety analysis inputs to ensure
12 that programmatic controls were adequate and that the extent
13 of condition was known. No new significant issues were
14 identified from these reviews either.

15 Another good measure of effectiveness which is
16 shown on this slide is the ratio of self-identified to
17 ICAVP-identified items as well as the safety significance of
18 the ICAVP identified items. Based on these criteria, the
19 Unit 2 Configuration Management Reviews did identify most of
20 the safety significant issues. During the past several
21 years we have submitted 119 Licensee Event Reports, LERs.
22 Of these, 114 LERs or 96 percent, were self-identified.

23 With respect to safety significance, we have
24 utilized risk-informed insights to classify these LERS as
25 low, moderate or high safety significance. Most were of low

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1 to essentially no safety significance.

2 Also, there were no LERS identified during the
3 ICAVP reviews that were of high safety significance.

4 In addition to restoring compliance with the
5 design and licensing basis, we have also had to put in place
6 the organization and processes to maintain compliance. A
7 permanent Configuration Management organization now resides
8 in the Nuclear Engineering Department under Dave Amerine,
9 and is responsible for owning, enhancing and self-assessing
10 the Configuration Management Programs.

11 Also provided by the Configuration Management
12 organization is a unit configuration control function which
13 helps monitor and ensure that configuration control is
14 maintained across the site.

15 Finally, an Engineering Assurance function has
16 been put in place to assess engineering adherence to the
17 design control program. Appropriate training has also been
18 provided site-wide for Configuration Management and 50.59
19 safety evaluations.

20 Ongoing line assessment, engineering assurance and
21 unit configuration team reviews as well as nuclear oversight
22 findings are being used to monitor performance.

23 A complete description of our going forward
24 Configuration Control Program was provided in our February
25 5th submittal to the NRC Staff. It should be noted that the

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1 Unit 2 and Unit 3 configuration control programs are
2 essentially identical now, as we transition to a single site
3 focus.

4 In closing, I would like to say that Millstone
5 does have a firm basis for the closure of the ICAVP order
6 and informed the NRC Staff on March 23rd that all the
7 requirements of the order have been completed.

8 Also, the corrective action program is healthy and
9 will support safe operation. The extraordinary effort over
10 the last three years to restore compliance with the design
11 and licensing basis is now complete. The effort will serve
12 Millstone well because it has resulted in higher standards
13 for maintaining both regulatory compliance and design
14 configuration control.

15 Millstone now has a deeper understanding of its
16 design basis and safety limits and as a result will be able
17 to better reduce risk and preserve safety margins. I am
18 confident that Millstone will meet these expectations, and
19 with that my role over the past two and a half years in
20 helping to recover Millstone is now also complete.

21 If there are no further questions, I turn it over
22 to Mike Brothers.

23 CHAIRMAN JACKSON: Are you preparing to leave?

24 MR. BOWLING: Yes.

25 MR. BROTHERS: Thank you, Marty. Good afternoon.

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1 I am pleased to have the opportunity today to discuss
2 Millstone Unit 2's readiness to resume operation. My
3 presentation today will give an overview of the amount of
4 work accomplished since Millstone Unit 2 shut down in
5 January of 1996. Our current assessment of departmental
6 readiness, human performance, as well as a discussion of our
7 proposed startup backlog that will exist when Millstone Unit
8 2 resumes operation.

9 This slide gives an overview of the amount of work
10 accomplished since Unit 2 shut down in 1996. These numbers,
11 shown in the left-hand column, are current as of April 5th.
12 They have mostly come down. For instance, in the area of

13 restart tasks, April 5th we had 88. We now have 29 restart
14 tasks allowed out of almost 17,000.

15 The right-hand column is to give some sense of the
16 amount of work done in each category during this shutdown.
17 I am not going to cover every category in this slide.
18 Suffice it to say that all the categories with the exception
19 of temp-mods and operator workarounds will be at zero prior
20 to entry into Mode 2. The goal for both of these remaining
21 two categories is less than or equal to 10. Both of these
22 will be at goal prior to entry into Mode 2.

23 This slide gives our organizational assessment of
24 effectiveness as of April 5th as well. As of today all of
25 our assessments are satisfactory with the exception of work

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1 planning and outage management, as Lee Olivier discussed
2 earlier. Work planning an outage management will remain in
3 attracting a satisfactory mode until all activities are
4 complete to support the restart of Unit 2.

5 As you know, a decision was made on April 5th to
6 cool the plant down to Mode 5, which is cold shutdown, to
7 effect a repair on a shutdown cooling valve. That repair is
8 in progress, but the evolution to cool the plant down,
9 repair the valve and send this to normal operating
10 temperature and pressure has delayed our completion of all
11 restart related activities. We had planned to be done
12 today.

13 Work planning and outage management however will
14 be satisfactory for restart prior to entry into Mode 2.

15 This form of assessment, as I have talked before,
16 is different and complementary to the Nuclear Oversight
17 Verification Plan. For instance, what we look at here is
18 departmental readiness and what Ray will look at is
19 programmatic readiness. The distinction would be like for
20 instance corrective action here being rated Green as looking
21 at the effectiveness of the corrective action departments,
22 whereas Ray Necci and the Nuclear Oversight Verification
23 Planning is looking at the overall effectiveness of the
24 corrective action program.

25 This slide does indicate that we will be ready to

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1 organizationally enter Mode 2.

2 This next slide shows our percentage of low
3 significance precursors as a percentage of all human errors.
4 We continue to meet our goal of having greater than or equal
5 to 95 percent of all human error events be of a low
6 significance precursor type.

7 I have discussed this in several previous meetings
8 and what this means is that a low significance precursor
9 event is an event in which a barrier breaks down but no
10 consequences result. Having a high percentage of human
11 error events be of a low significance precursor type allows
12 us to implement corrective actions at a lower level which
13 further decreases the probability of human error occurring
14 which results in significant consequences. This metric is
15 acceptable to support restart.

16 This slide shows our current online corrective
17 maintenance backlog. In a fashion similar to Millstone Unit
18 3 and in fact typical of all outages, the online backlog is
19 increasing as the outage draws to a close. That's because
20 we now focus on work that has to be done while the unit is
21 shut down and let deferrable items that can be done while
22 the unit is online increase. This increase was anticipated

23 and as the indicators shows we're still meeting our goal for
24 maintenance rule or safety significance backlog.

25 If I could have backup slide Number 42.

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1 MR. BROTHERS: Performance on Millstone 3 was
2 similar. In fact, I will talk about the background numbers
3 on Millstone Unit 3 when we returned to service. We had 583
4 power block and about 320 maintenance rule items. We have
5 steadily reduced that backlog since we have been on line.
6 In fact, we have not only reduced it, but we have reduced
7 our goal. The goal on Unit 2 right now is 500 power block,
8 350 maintenance rule.

9 As you can see on this metric, the goal for Unit 3
10 is 400 power block and 200 maintenance rule, which we are
11 meeting both. In fact, we have 370 corrective maintenance
12 items at this time in a backlog, which is a very good number
13 for a plant Millstone's size. Of that, only 145 are
14 maintenance rule AWOs. Similar performance is expected on
15 Millstone Unit 2.

16 This population of corrective maintenance backlog
17 has been assessed and found acceptable to support restart.

18 COMMISSIONER MERRIFIELD: Mr. Brothers, going back
19 to slide 30, I notice that there is a spike for the week of
20 April 2nd. Now, I take you say that that was anticipated
21 that there would be a spike?

22 MR. BROTHERS: Yes. At the end of Unit 3's period
23 the same thing happened. What is happening, the way I
24 described this before, and I did remove it from my remarks,
25 but I will use it again. What happens, and if you look at

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1 outage backlog and non-outage backlog, they are like a sine
2 and cosine curve, they are out of phase. When you are
3 online, your online backlog goes down and your outage
4 backlog goes up because you can't get to it. And when you
5 are offline, your outage backlog goes down and your online
6 backlog goes up because you have the opportunity to get to
7 it once you get back online.

8 We still, however, applied the same deferral
9 criteria that we applied throughout our assessment, and
10 anything that was in fact identified as doing online or
11 deferrable met that criteria.

12 COMMISSIONER MERRIFIELD: Okay. Do you have any
13 information about the week of April 9th, whether there has
14 been a further spike?

15 MR. BROTHERS: No, in fact, it is coming down. It
16 has turned. That was 683, it is 674 now, so it is coming
17 back down. We have added resources to this. We are going
18 to make every effort to get it to 500, but similar to Unit
19 3, we probably will miss it by 60 or 70, but it coming down
20 now, it is not going up anymore.

21 COMMISSIONER MERRIFIELD: Thank you.

22 COMMISSIONER JACKSON: Thank you.

23 MR. BROTHERS: Could I have slide 31, please?
24 This slide gives a breakdown of our restart backlog. The
25 final numbers are planned to be transmitted to the NRC

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1 approximately 30 days following entry into mode 2, as our
2 final response to 10 CFR 50.54(f), question number 2.

3 These numbers are in rough agreement with the
4 numbers submitted for Millstone Unit 3 on June 30th, 1998,

5 and I showed that slide earlier. As a comparison, the
6 corrective action assignments for Millstone Unit 2 at 3,036
7 was 3,915 for Millstone 3. Corrective maintenance ABO was
8 664, was 583 as I discussed earlier. In rough agreement
9 across the board.

10 Two areas, however, in the Millstone Unit 2's
11 backlog, they are not listed, is nonconformance reports were
12 57 on Unit 3, which are already at zero. And configuration
13 management which was included as a separate category,
14 effectively doubled-counted on Millstone Unit 3 is now
15 included as a part of the corrective action assignments.

16 Our performance in backlog reduction, as I
17 discussed earlier, has been good on Unit 3 and similar
18 performance is expected on Unit 2. This population has been
19 reviewed both internally and externally with no significant
20 findings. As I said before, our backlog has been assessed
21 both individually and on an aggregate basis using risk
22 insights and found acceptable to support restart.

23 COMMISSIONER JACKSON: You have an asterisk and
24 you say 254 of the 664 are risk significant. How do you
25 justify restart with any risk significant items?

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1 MR. BROTHERS: That 254, going back to the
2 previous slide 30 is the bottom bar in the corrective
3 maintenance. Go back to slide 30, please. The solid
4 portion of that bar is the 254. That is the counting of
5 those items right there. Corrective maintenance backlog for
6 maintenance rule systems. So, in other words, you can have
7 a corrective maintenance item, for instance, for a
8 temperature indicator on a maintenance rule system. You
9 have to assess individually that it is acceptable for
10 deferability. However, you still have to effect both
11 reliability, operability and reportability and they have to
12 meet all those rungs before you can, in fact, defer it.

13 COMMISSIONER DICUS: Let me follow up on that
14 question because on the same situation you say that your
15 goal is to get down to less than 350. But what part of that
16 goal would be those that you are getting to that you call
17 risk significant?

18 MR. BROTHERS: The definition is only that it is
19 on a risk significant system. There is no -- it is simply
20 an indicator that it is a corrective maintenance item that
21 is on our risk significant system. Each of those is in fact
22 evaluated individually for deferability, and it has to meet
23 deferable criteria in order to be on this, otherwise, it has
24 to be worked. It is just an indicator of health of the
25 maintenance rule systems, as well. In other words, we want

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1 to track both power block, corrective maintenance, and in
2 the subset of that, maintenance rule corrective maintenance.

3 COMMISSIONER DICUS: Okay.

4 COMMISSIONER JACKSON: I am giving an
5 advertisement that I am going to ask the staff about this.

6 MR. BROTHERS: Slide 32.

7 COMMISSIONER MERRIFIELD: I have one question, one
8 last question about slide 31. As systems return to service,
9 obviously, you may have emergent problems that may come
10 about that may affect temporary mods, operator work-arounds,
11 control room deficiencies. To what extent prior to restart
12 do you intend analyze that to determine whether they may
13 present some kind of an undue challenge to the operators who
14 are getting ready for those restart activities?

15 MR. BROTHERS: We are required as part of our
16 special procedure for restart, changing each mode to do a
17 mode change assessment which does exactly that. It looks at
18 the health of systems. It looks at operator impact. It
19 looks at all of those items prior to making a mode change.
20 So we are in mode 5, we will do for mode 4, for mode 3, for
21 mode 2 and for power ops. We have already done up to and
22 including mode 3 and we will do it again as we transition
23 back through those modes again. But that is really the
24 purpose of the mode change assessment, the unit leadership
25 looks at and assesses the ability of the unit to go into the

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1 next mode on an aggregate standpoint.

2 COMMISSIONER JACKSON: Okay.

3 MR. BROTHERS: Okay. The path to nuclear
4 excellence issue includes the following near term
5 milestones. First, and our highest immediate priority is
6 the safe return to power operation to Millstone Unit 2. To
7 address the goal of safe return operation, we have applied
8 the principal lessons learned from the startup and early
9 power operation of Millstone Unit 3. The preliminary
10 results of operational safety team inspection validate our
11 conclusion that we are ready to safely return Millstone Unit
12 2 to service.

13 Second, our next priority as a station is the safe
14 conduct of the scheduled Millstone Unit 3 refueling outage
15 in May and June of this year. Although outage planning
16 began late on Unit 3, outage planning is progressing and
17 expected to be complete by April 17th.

18 Third, after the completion of Millstone Unit 3
19 refueling outage, we will complete our transition to the
20 site organization previously discussed by Lee Olivier. The
21 structure of the new organization is devised to provide a
22 structured operational focus by providing clear lines of
23 responsibility for operations, engineering, maintenance and
24 support organizations.

25 Our fourth priority this year is to start a

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1 program of process improvement at Millstone Station. This
2 process improvement program will make extensive use of
3 industry benchmarking to make process improvements in
4 several key processes, including work control and asset
5 management.

6 My final slide shows the two milestones which
7 remain to return Millstone Unit 2 to service. Due to the
8 need to cool down and repair a leaking valve, our mode 2
9 readiness date has been reevaluated and is expected to occur
10 approximately April 24th, with mode 1 following by
11 approximately two days.

12 What remains are a handful of items out an initial
13 population of thousands to be ready for restart. It is
14 essential that we keep in mind that simply being ready for
15 restart is by no means excellence. After being shut down
16 for 39 months and learning from the restart experience of
17 Millstone Unit 3, this is simply the next step in our path
18 to excellence in nuclear operations. That step, however,
19 signifies a monumental effort by the men and women of
20 Millstone station.

21 I am personally proud today to tell you that we
22 believe that, following the repair to the shutdown cooling
23 valve mentioned earlier, the unit will be physically ready,

24 the organization is adequately staffed and trained, and the
25 operations organization is ready to safely return Millstone

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1 Unit 2 to service.

2 That concludes my presentation. If there aren't
3 any further questions, I will turn it over to Ray Necci to
4 discuss nuclear oversight's assessment of Millstone Unit 2's
5 readiness.

6 MR. NECCI: Thank you, Mike.

7 Good afternoon. I would like to provide nuclear
8 oversight's independent assessment that Millstone 2 is ready
9 for a safe restart and for continued safe operation. We
10 have reached this conclusion by combining the results of our
11 audits, assessments and management observations. These
12 results are an integral part of our regular review of the
13 unit's readiness for restart, the nuclear oversight
14 verification plan, or NOVP as we call it.

15 As we have discussed at previous Commission
16 meetings, the NOVP review process evolved from the oversight
17 assessment of the 16 key issues that were the basis for the
18 Millstone recovery plan.

19 COMMISSIONER JACKSON: Can you all start calling
20 them the 17 key issues?

21 MR. NECCI: Yes, Chairman.

22 MR. BROTHERS: Yes, we can, and will.

23 MR. NECCI: As I was saying, oversight's
24 assessment of the 17 key issues --

25 [Laughter.]

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1 COMMISSIONER JACKSON: Sixteen of the 17.

2 MR. NECCI: That were the basis for the Millstone
3 recovery plan that Lee Olivier spoke about earlier. After
4 the restart of Millstone 3, the NOVP continued to cover 10
5 key issues specific to Millstone 2 and four common site
6 programs. In all these areas, nuclear oversight believes
7 that Millstone Unit 2 is ready for restart.

8 Nuclear oversight's review of Unit 2's readiness
9 included the NOVP reviews and a close tracking of open
10 issues on the oversight mode issue list. Oversight was
11 actively involved in evaluating the unit's readiness to
12 change modes by interfacing with the line on key issues and
13 by independently evaluating results.

14 In addition to the above activities, we
15 established control room coverage prior to the entry into
16 mode 4 and we will continue to maintain coverage through the
17 power ascension test program. This coverage involved
18 control room observations and in-plant rounds with equipment
19 operators. Oversight approval was required prior to the
20 entry into mode 4 and then mode 3, and will be required
21 prior into the entry into mode 2.

22 The next slide shows the NOVP results from our
23 March 24th review. I would like to point out that
24 operations and engineering were rated satisfactory or green
25 at our April 7th NOVP meeting held last week. Millstone 2

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1 operations has continued to improve their performance as
2 they move the unit from mode 5 up to the point of being
3 ready to enter mode 2.

4 Nuclear oversight's around the clock coverage has
5 shown positive observations related to the conduct of
6 operations. Operator diligence and procedure

7 implementation, questioning attitudes and control of
8 operational evolutions is evident across all of the shifts.

9 In addition to control room observations, nuclear
10 oversight observed valve line-ups and the placing of
11 equipment into service as the unit heated up.

12 During the transition to mode 4 there were several
13 cases of operational configuration control lapses and a
14 missed technical specification surveillance. Although unit
15 management's response to these were timely and strong,
16 continued vigilance is needed in this area. Recent
17 performance in mode 3 and then in the return of the unit
18 back down to mode 5 has been acceptable.

19 The performance of engineering was also rated as
20 satisfactory to support restart at the April 7th NOVP.
21 Also, nuclear oversight's review indicates that the
22 necessary process and procedures are in place to support the
23 unit's configuration management on a going forward basis.

24 The independent reviews performed by the system
25 engineers to support system readiness were generally good.

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1 We do see the need for system engineers to shift more fully
2 into an operating plant mode. This will ensure that system
3 performance will be closely monitored and will start to move
4 the unit towards industry leadership levels. This was a
5 lesson learned from Millstone 3, and the ability for the
6 system engineers to monitor plant performance on a going
7 forward basis. So this is a lesson that we have learned and
8 moved to Millstone 2.

9 Our assessment of the restoration and
10 documentation of the key aspects of the unit's safety
11 analysis showed that key critical parameters were adequately
12 documented in a safety functional requirements manual. This
13 issues was identified by Parsons as part of the ICAVP.
14 Based on oversight's review, and the line's expansion of
15 scope, we believe that this is now acceptable for restart.
16 Engineering will continue to meet the focus on the quality
17 of engineering products, as was discussed earlier today.

18 The environmental monitoring program is ready for
19 restart in the area of compliance with NRC regulations. We
20 continue to show the yellow window on the NOVP because our
21 environmental performance in meeting State of Connecticut
22 discharge permit requirements needs to continue to improve.

23 Additional efforts that are being implemented
24 include site-wide training for our personnel and the
25 establishment of a quick response environmental team. This

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1 quick response team was modeled on our people team concept,
2 which was successful in addressing safety conscious work
3 environment issues, and will be used to quickly address
4 environmental issues as they arise.

5 In conclusion, I would restate that oversight
6 believes that Millstone 2 is ready for a safe restart and
7 for safe continued operation. Also, we have judged that we
8 have met the restart affirmation criteria number 7, which
9 was titled, "Management Control and Oversight Assurance That
10 Performance Will Be Maintained."

11 This means that an integrated set of assessments
12 and management controls are in place to set priorities,
13 reinforce standards and to take appropriate corrective
14 action. These assessments and controls included effective
15 self-assessment and corrective action programs, strong

16 independent assessments by nuclear oversight and an
17 affective Nuclear Safety Assessment Board which provides
18 independent oversight of the line and internal oversight
19 functions. These controls will ensure that Millstone's
20 performance will not backslide.

21 Additional controls include an Executive Review
22 Board which ensures that safety conscious work environment
23 factors are considered with any significant personnel
24 actions. Engineering Quality Review Boards continue to set
25 or reinforce Millstone's commitment to high standards. And

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1 the Nuclear Committee of the NU Board of Trustees and the
2 Nuclear Committee Advisory Team provide support and
3 oversight on nuclear issues.

4 I see that nuclear oversight will play a key role
5 in improving our future performance. I am extremely pleased
6 with the tremendous progress that oversight has made during
7 this recovery in being intrusive, by focusing the line on
8 the right issues and of setting high standards. And I can
9 assure that this would continue.

10 As the next slide indicates, we will continue to
11 help Millstone move to a higher level of performance by
12 evaluating that performance against a criteria that is
13 higher than the restart criteria. We will base our reviews
14 on industry and IMPO standards. This raising of the bar
15 will move both units to higher levels of performance and
16 eventually up to a level that is amongst the best in the
17 industry.

18 If there are no questions, I would like to turn it
19 back to Lee.

20 COMMISSIONER JACKSON: Well, I have a general
21 question before, Mr. Oliver, you summarize. In the January
22 meeting we discussed several drain down events that
23 occurred. Have you been able to assess the significance of
24 those events and do any of them meet any of the IMPO
25 criteria for significant events?

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1 MR. OLIVIER: This was with the spent fuel pool?

2 COMMISSIONER JACKSON: Yes.

3 MR. OLIVIER: We have made the assessment, and to
4 the best of my knowledge, they do not meet any of the IMPO
5 criteria.

6 MR. BROTHERS: That is correct. There were two
7 events in which we had water move from our safety injection
8 tanks into the reactor coolant system associated with motor
9 operator valve testing and then, finally, the procedural
10 inadequacy which resulted in two inches of water from a
11 spent fuel pool to what we call clean liquid rad waste. We
12 have run that past and it does meet the threshold for SOER.

13 COMMISSIONER JACKSON: Okay. So now.

14 MR. OLIVIER: In closing, I would like to touch on
15 two issues. Number one, we have had a lot of discussion on
16 backlog reduction. We have made a commitment to you to
17 reduce the backlog. We will keep that commitment. We will
18 put together a plan, work the plan, and we are going to
19 monitor the plan with KPIs, our key performance indicators.
20 We will work on the backlog. We understand that working
21 down the backlog is the best way, one of the best ways we
22 can reduce our risk and help focus the organization on items
23 that are more important.

24 The second issue is that we are committed to our
25 people. We believe we have the right people. We are

1 committed to listen to our people, to make sure that they
2 have the skill set that they need to go forward, so that we
3 can be successful together, and also to make sure that our
4 people participate with us in moving forward and creating
5 alignment, and achieving best of best practice. Thank you.

6 COMMISSIONER JACKSON: Thank you. Any further
7 comments?

8 [No response.]

9 COMMISSIONER JACKSON: We will take our 12:30
10 break and reconvene at 2:00. Thank you.

11 [Whereupon, at 1:00 p.m., the briefing was
12 recessed, to reconvene at 2:15 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 [2:15 p.m.]

3 COMMISSIONER JACKSON: Good afternoon. We will
4 continue with our meeting. We have with us Mr. Eric
5 Blocher, the Deputy Project Director on the ICAVP Project
6 from Parsons, and Mr. Dan Curry, the Project Director, and
7 Vice President of Nuclear Services, Parsons Power Group.

8 So, gentlemen, please proceed.

9 MR. CURRY: Good afternoon, Chairman Jackson and
10 fellow Commissioners. I am pleased to be here today to
11 present our results from the Unit 2 ICAVP. We did in
12 December of last year submit our executive summary, followed
13 up on January 12th by volume 2 of our report on the ICAVP.
14 On March the 19th we submitted a supplement which dealt with
15 our review of a number of corrective action issues that were
16 generated out of the level DRs that we had generated during
17 the inspection. Northeast has responded to each one of
18 those documents to the staff in docketed correspondence.

19 I would like to review just a little bit to kind
20 of give you an idea of the objectives and the extent to
21 which we inspected Unit 2. As you see from the order in
22 1996 the objectives were to verify for the selected systems
23 that Northeast Utilities' configuration management program
24 had identified and resolved existing problems with the
25 design and licensing basis, and that Northeast Utilities had

1 documented and utilized the design and licensing basis for
2 those systems properly and that Northeast had established
3 programs and procedures and processes for effective
4 configuration management in the future.

5 Just a slight clarification to make sure we
6 understand that because of the Unit 3 going first, the
7 site-wide programs were reviewed as part of Unit 3, whereas,

8 we looked at specifically those configuration management
9 changes that have been done on Unit 2 alone.

10 Our structure for the ICAVP was done with three
11 tiers, plus our corrective action organization. By far the
12 largest was our tier 1, which performed an in-depth review
13 of 11 selected system groups to verify that the systems meet
14 the design and licensing basis. Tier 2 was to verify that
15 the system design parameters relied upon to mitigate the
16 consequences of the potential accidents were consistent with
17 the performance of the current system configuration.

18 I would certainly comment that this is something
19 unique to the ICAVP from the inspections that have been done
20 in the past, and proved to be a very important portion of
21 the inspection.

22 Our third portion was a verification of the
23 configuration control processes and making sure they had not
24 introduced any changes to the unit that might have put them
25 in nonconformance with the design and licensing basis. And

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1 this was extensive and I think starts to show the depth and
2 the breadth of our inspections.

3 The tier 1 scope, we were assigned four systems
4 and, really, they comprised 11 of those maintenance group 1
5 and 2 systems. Auxiliary feedwater, high pressure safety
6 injection were selected for our first two system groups, and
7 then radiological release control and the emergency diesel
8 generator were selected secondly.

9 COMMISSIONER JACKSON: Can we have --

10 MR. CURRY: If I can just give you some idea of
11 the magnitude, when we look at the licensing and design
12 basis issues, 992 calculations, 1700 components were
13 reviewed, 236 modifications were reviewed in-depth, 337
14 operating maintenance and test procedures. We combined that
15 with physical configuration by plant walkdowns, utilizing
16 the application of all the regulatory, programmatic
17 requirements, and you start to see the thoroughness with
18 which this plant has been inspected.

19 COMMISSIONER JACKSON: How does the magnitude of
20 this project compare to others you have been involved in?

21 MR. CURRY: Certainly, I think the closest thing
22 for us to compare it with would be the support we provided
23 utilities when they were looking at EDSFIs or SSFIs. And I
24 am not sure I can give you just how tremendously much -- how
25 much larger this is. I mean factors of -- give me help

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1 here.

2 MR. BLOCHER: Well, the simply comparison is
3 typically in an EDSFI or other inspection, it is a sampling
4 process. This was comprehensive to the point of all design
5 attributes, and the key word being "all."

6 MR. CURRY: Maybe a team of seven very senior
7 engineers for five weeks on an SFFI. We spent significantly
8 more man-hours on that, on this effort.

9 COMMISSIONER JACKSON: Did you review include
10 emergency operating procedures?

11 MR. CURRY: We looked at all the procedures that
12 would be affected by the design and licensing basis.

13 Just one last point, if you look at -- not only
14 were the systems, 11 systems we looked at, but you had to
15 touch the interfacing systems was part of the protocol. So
16 you had to go into those interfacing systems and that
17 required 562 interfacing points to be reviewed as well. So

18 when you look at the 61 maintenance rule systems, we looked
19 at this plant.

20 COMMISSIONER JACKSON: Good.

21 MR. CURRY: Tier 2 was the accident mitigation
22 systems review. In this particular regard, there are 29
23 Chapter 14 design basis events, and we looked at every one
24 of these. We didn't sample these, we looked at every one of
25 these. And that also included the 16 that were gone, where

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1 they went back and did reanalysis during the configuration
2 management program performed by the licensee.

3 This review, again, was extremely extensive,
4 touching 56 of the 61 systems, where we looked at the
5 critical design characteristics, and those are the ones that
6 are required to make sure that when the accident, postulated
7 accident, should it occur, you are able to mitigate that
8 once it has been initiated. As well, we looked at the
9 initial characteristics to make sure that the accident, it
10 would start within an analyzed initial set of conditions.

11 A tremendous review that ties the important
12 accident analysis into the design and licensing basis of the
13 plant.

14 The tier 3 process was to verify the adequacy of
15 the Millstone Unit 2 CMP to identify and correct design and
16 configuration management deficiencies that had occurred
17 previously. As you are aware, this is a much older unit and
18 what we did was we developed five year intervals from the
19 time it came online and sampled all those change processes
20 that occurred, and we tried to have an even distribution
21 across each one of those five year intervals.

22 Here we have indicated we looked at 460 past
23 changes, and we broke them down into three major areas and
24 14 subareas. As you see, underneath the three major areas
25 are examples of the type of things we looked at under each

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1 one of these.

2 Finally, the corrective action sample review.
3 This is an independent corrective action verification
4 program, so the corrective actions were extremely important.
5 The extent of this, we broke them down into separate
6 corrective action reviews. For the tier 1 systems that we
7 were assigned, we did a sampling. We looked at 330 of the
8 1900 corrective actions that had been initiated on those
9 particular systems.

10 Then the staff picked non-tier 1 systems for us to
11 do some items of special interest to them, and we reviewed
12 the corrective actions related to those particular items,
13 not related to anything that we had specifically inspected
14 under the ICAVP.

15 And, finally, we looked at the level 3 DRs that we
16 had generated and the corrective actions related to them.
17 These are things that we found that had not been identified
18 by NU and to examine their ability to take the appropriate
19 corrective action based upon things that we found that they
20 had not picked up.

21 In our review of these corrective actions in many
22 cases, we were able to look at the actual implementation as
23 it was done. Because of the status of the plant, some of
24 those, we were able to look at the technical plan, all the
25 technical backup calculations, because in some cases, they

1 had not yet reached the mode to actually make that testing.
2 Certainly, it has not been done.

3 COMMISSIONER JACKSON: And how would you
4 characterize the actual corrective actions and the efficacy
5 of them?

6 MR. CURRY: I think -- and we will talk about that
7 a little bit later, I have got some more statistics. If I
8 could move and do that later.

9 COMMISSIONER JACKSON: Fine. Yes.

10 MR. CURRY: I will talk a little bit about
11 deficiency reports, because, clearly, with the protocols the
12 way they were, I mean you are doing an inspection and you
13 are communicating back and forth. We have found some
14 discrepancies. The findings were identified during our
15 review and at that point, when we identified something, we
16 termed it to be preliminary, and we forwarded these
17 preliminary findings to the Northeast Utilities, to the NRC
18 staff, to Connecticut Nuclear Energy Advisory Council, NEAC,
19 and to the public via Parsons web site.

20 We closed these discrepancy reports based upon a
21 review of Northeast Utilities' response. In many cases
22 these were written responses supporting by monitored phone
23 calls by both NEAC and the NRC staff to resolve, make sure
24 we really understood -- they understood our issue and that
25 they had resolved it. So we would close that based upon an

1 agreement on the proposed corrective action to be performed.

2 The DR categories were closed in various
3 categories. A confirmed was one that they had not previous
4 identified, and we agreed that indeed it was a discrepancy.
5 There were some discrepancies that after we were provided
6 additional information, that we were able to establish that
7 they indeed had previously identified this and placed this
8 in one of their corrective action programs.

9 The other set was discrepancy reports that later,
10 after receiving additional information, we convinced
11 ourselves that they were non-discrepant.

12 And, finally, we had a set that were invalid, and
13 those were ones that a team member had written. Upon
14 further review by other team members, up through Mr.
15 Blocher's level, it was determined that that was not a valid
16 discrepancy.

17 I would like to talk a little bit about the
18 results of the review of the findings, as this is one way to
19 measure their performance. 773 valid preliminary DRs were
20 issues, 51 of the invalid DRs, as I had mentioned previously
21 in that category. The level 2 or level 1 and level 2
22 discrepancies for DRs involved loss of a system, a train
23 functionality. These are the most severe DRs that were
24 categorized.

25 Level 3 discrepancies would indicate that they had

1 less than full compliance with the design and licensing
2 basis, but that system functionality was still maintained.
3 The level 4 DR represented minor discrepancies which did not
4 affect the plant design or licensing basis.

5 We found no level 1s confirmed, no level 2
6 confirmed, 75 confirmed level 3s on Unit 2. We did go back
7 and do a review of the corrective actions, and I will speak
8 on those later. We had 521 confirmed level 4 discrepancies
9 which primarily were comprised of errors in calculation or

10 errors in drawings, or other types of documentation which
11 did not directly affect the design licensing basis of the
12 plant. 58 were deemed to be preliminary, that were
13 previously identified, and 119 turned out to be
14 non-discrepant.

15 COMMISSIONER MERRIFIELD: I have a question about
16 this. This morning, in the presentation we heard from NU,
17 one of the presenters stated that some of the reason that
18 there was an increased level of DRs in the ICAVP was in part
19 because their program was slow in getting started, and so
20 you sort of go ahead of where they otherwise would have
21 been.

22 MR. CURRY: Yes, sir.

23 COMMISSIONER MERRIFIELD: To what extent do the
24 773 DRs, to what extent do you think that may indicate
25 errors of that nature? If you can't answer it that way --

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1 MR. CURRY: It has been a long time. I am
2 trying --

3 COMMISSIONER MERRIFIELD: Is it a little or a lot?
4 I mean, you know, is that --

5 MR. CURRY: There were certainly, I mean I think
6 the level 3s were impacted that way because of some
7 programmatic issues that the licensee had identified that he
8 had a problem in his programs, but yet had not gotten into
9 the detail necessary to determine exactly what the programs
10 were.

11 MR. BLOCHER: Clearly, there was a group of DRs in
12 here that were indicative of the licensee declaring a
13 program finished too early. In fact, there was one system,
14 the aux feedwater system and several programmatic --

15 COMMISSIONER JACKSON: Can you move that
16 microphone?

17 MR. BLOCHER: Yes. In fact, there was one system,
18 the aux feedwater system and several programmatic areas that
19 the licensee essentially put our review on hold until they
20 could complete further corrective action review of those.

21 MR. COLLINS: I just don't know that I know those
22 numbers.

23 COMMISSIONER MERRIFIELD: I don't either. I was
24 finishing more for significant/not significant versus exact
25 numbers. That is fine.

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1 COMMISSIONER JACKSON: Actually, in that context,
2 I guess, can you speak at all to whether you feel -- and I
3 realize now you are at a disadvantage because none of us
4 will remember the numbers from Unit 3, but in terms of what
5 you found or the significance of them, how much do you feel
6 may have been related to the age of plant?

7 MR. CURRY: Well, clearly, I think Mr. Bowling's
8 comments this morning, I mean the age of this unit and the
9 quality of the documentation at the time when the plant was
10 originally licensed had a great deal to do with that, and I
11 think you commented on the issue of CMP that they were
12 giving great focus to Unit 3. Although they had identified
13 that there was a problem in a program, the protocol within
14 our audit plan to meet the order was such that they had to
15 be very specific about their understanding at the time I
16 picked up that piece of paper to look at it, and we got
17 ahead of them, if you will, in that particular regard.

18 If we look at the ICAVP results, and the number of

19 confirmed level 3 discrepancies, I mean those that have to
20 do with design and licensing basis, there are 75. But that
21 is really a small number when you look at the thousands of
22 things that we reviewed. I mean I have talked about the
23 calculations and the modifications and everything that we
24 looked at. The number of design and licensing basis
25 requirements that we verified compared to the number of

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1 level 3s is extremely small.

2 I think probably -- there were no significant
3 level 1s, there were no significant level 2s, and as you are
4 probably aware, there were some preliminary ones. So it was
5 not like we were not looking very hard.

6 But when you combine that issue from tier 1 and
7 the fact that the accident mitigation systems reviewed in
8 tier 2, what we saw was all those systems were capable of
9 performing those functions. And to me, I mean that is an
10 indication that they have looked at it, they understand it,
11 they are able to keep this plant where it needs to be.

12 If I can talk about conclusions. They were
13 generally effective in identifying problems and providing
14 corrective actions related to the design and licensing
15 basis. And, clearly, I will tell you the general related to
16 the issue we have just discussed, we were ahead of them,
17 and, by protocol, they weren't supposed to be in that
18 position. So, generally, they were. As we saw them
19 shifting their resources to Unit 2, I mean clearly we saw --
20 started to see the results we would have expected to have
21 seen from people who were doing reviews and turning systems
22 over to us for review.

23 We did identify also a weakness for the process of
24 ensuring that all accident analysis and design inputs were
25 consistent with the abuilt plant and the operating

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1 surveillance procedures, and this was also picked up by the
2 staff in their reviews of both tier 1 and tier 2. NU has
3 addressed this particular weaknesses in docketed
4 correspondence with the staff and we have reviewed that as
5 well as the staff, and I will sure they will make comment to
6 that.

7 COMMISSIONER MERRIFIELD: Just one follow-up
8 question. Are you satisfied with the way in which NU has
9 gone about correcting that identified weakness?

10 MR. CURRY: Commissioner, because of the protocol,
11 I look at results. I really don't get to look inside of
12 their organization, how they do things, so I can only talk
13 about the results that we have seen. And, certainly, the
14 results say to me they have done something that has started
15 to really pay off. I mean we are starting to see -- one of
16 the programs that we identified that needed improvement had
17 to do with separation and isolation and, certainly, what we
18 saw when we went back to see what things they had done to
19 change that program, we were very impressed. So, just from
20 a protocol, I don't get to see how they --

21 COMMISSIONER JACKSON: So you are saying, right,
22 your focus was on these results and less on the programmatic
23 and process aspects, except by implication?

24 MR. CURRY: By implication. They can tell me they
25 are doing things, but I would only hear those maybe from

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1 staff, or staff would see them. I would just see the

2 results of what they do. And so when we get to -- when you
3 see the corrective action results, to me, when they are
4 meeting our level of expectation, that they changed -- they
5 are doing something right. I mean whatever their process
6 was to get there, I am only interested in the results. I
7 don't get to see how they have changed their process.

8 Upon implementation of the corrective actions
9 associated with the level 3 DRs and issues identified by NU,
10 it is our conclusion that the 11 selected systems reviewed
11 in tier 1 will meet their design and licensing basis, and
12 that all the critical design characteristics associated with
13 the 56 accident mitigation systems reviewed in tier 2 will
14 be consistent with the plant configuration as installed.

15 For the historical changes reviewed in tier 3, NU
16 had not made changes that were technically a problem. All
17 of them were adequate and did not adversely affect the plant
18 design and licensing basis. I think the statistics were
19 there was only one level 3 discrepancy written against the
20 tier 3 inspection.

21 COMMISSIONER JACKSON: Well, having said that, you
22 know, that Northeast Nuclear has proposed to postpone the
23 disposition of the ICAVP related backlog. And so some of
24 the Unit 2 items might not be completed until December of
25 2001. Do you have any views on the postponement of the

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1 backlog and its significance?

2 MR. CURRY: I heard about it this morning.

3 COMMISSIONER JACKSON: Oh, okay.

4 MR. CURRY: But the thing I think I also
5 understood was that they are only proposing to delay things
6 that were in the level 4 category, that did not have to
7 impact the design and licensing basis. They would not have
8 been level 4s if we did not concur that they were not going
9 to affect the design and licensing basis.

10 COMMISSIONER JACKSON: All right.

11 MR. CURRY: I am sure the staff will have other
12 comments about that, but that is my position. If they had
13 to do with the design and licensing basis, they wouldn't
14 have been a 4 to begin with.

15 Overall corrective action process, we found to be
16 effective in identifying and correcting the design and
17 licensing basis issues. When we went and looked at and
18 sampled 400 system corrective actions, and they had
19 identified and corrected by NU in the review of the
20 corrective actions associated with our DRs. And I put a lot
21 of stock in the fact that they were able to go and take an
22 issue that they had not been able to find initially. We
23 wrote it, we agreed it was a discrepancy, and they were able
24 to put together a corrective action program, which gave me
25 the confidence that they could take an issue, understand it

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1 and come up with a corrective action that got them back into
2 compliance with the design and licensing basis.

3 I mean you think about the other ones, they were
4 correcting their own things they had found themselves. Here
5 were ones that they had not been able to find themselves.
6 So to find a corrective action program that was effective in
7 that particular area, again, added to our confidence that
8 they have a good program.

9 We have written a report and I think these
10 represent our findings.

11 COMMISSIONER JACKSON: Okay. Mr. Blocher, any
12 comments you want to make?
13 MR. BLOCHER: No. I think --
14 COMMISSIONER JACKSON: He has covered them all.
15 Okay. We will see if you can recall.
16 Do you have any questions, Commissioner Dicus?
17 COMMISSIONER DICUS: Yes, I have a question. A
18 licensee indicated this morning also in their presentation
19 that they are of the opinion that the ICAVP order should be
20 closed. Do you agree? Do you have an opinion on that?
21 MR. CURRY: Yes, ma'am. Based upon the review
22 that we have done, I think we have, when you look at the
23 objectives of what we were supposed to inspect and be able
24 to say to you that our review indicates that they are within
25 the design and licensing basis and the programs that they

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1 are implementing are providing the results that will keep
2 them within that, yes, ma'am.
3 COMMISSIONER DICUS: It is not qualified
4 otherwise?
5 MR. CURRY: No, ma'am.
6 COMMISSIONER DICUS: Okay. Thank you.
7 COMMISSIONER JACKSON: Commissioner Diaz?
8 COMMISSIONER DIAZ: No questions.
9 COMMISSIONER JACKSON: Mr. Merrifield?
10 COMMISSIONER MERRIFIELD: No further questions
11 COMMISSIONER JACKSON: Thank you very much.
12 MR. CURRY: Thank you.
13 MR. BLOCHER: Thank you.
14 COMMISSIONER JACKSON: I would now like to call
15 forward the following panel to the table. Ms. Susan
16 Perry-Luxton from the Citizens Regulatory Commission; Mr.
17 Ronald McKeown from Friends of a Safe Millstone; Mr. Thomas
18 Sheridan, a First Selectman of the Town of Waterford; Mr.
19 John Sheehan from the Nuclear Energy Advisory Counsel; and
20 Ms. Tina Guglielmo, Standing for Truth About Radiation; and
21 Ms. Nancy Burton or her representative, Mr. Joseph Besade
22 from Fish Unlimited. Thank you very much. And I forgot Mr.
23 Robert Barron from the Millstone Employee Ad-Hoc Group. I
24 apologize.
25 I think that I would like to do is I am just going

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1 to go from our left to right, and I will start with Mrs.
2 Susan Perry-Luxton.
3 MS. PERRY-LUXTON: I am Susan Perry-Luxton, I am
4 from the Citizens Regulatory Commission, a grassroots
5 citizens' group that was formed in September of 1995 in the
6 Waterford, Connecticut community because we feared for our
7 safety when Senior Engineer George Gallatis came forward and
8 revealed mismanagement and safety problems at Millstone
9 Nuclear Power Station.
10 I find it interesting to be here once again under
11 the big tent of the NRC, at the home base of the NRC's
12 traveling circus and dog and pony show. After three years
13 of interacting with the NRC on nearly a monthly basis, the
14 time for appealing to this agency for help, or to enforce
15 its mandate is over. We have learned our lesson, now is the
16 time to name things as they are.
17 I find it interesting that once again your
18 restrictive agenda allotted an hour or more to the nuclear
19 industry and only 35 minutes for citizens' groups, and no
20 time for whistle-blowers or concerned individuals that are

21 stakeholders in the nuclear community. For example, Tom
22 Mastrianna, who sits on my right, who has legitimate issues
23 like the defective fire barrier penetration seal and the
24 pass issue which impact the whole industry has not been
25 allowed to speak.

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1 Judge Bolwick's recent investigation reveals
2 examples of incompetence in senior management and in the
3 Office of Investigation and leads us to believe us you don't
4 have the will to properly investigate harassment cases in
5 the NRC. You who are mandated by law to protect nuclear
6 workers have ignored and abandoned them in their plight,
7 causing the needless suffering of Mr. Mastrianna and men and
8 women like him. That is truly heartless.

9 You haven't -- have you seen the front page
10 coverage in the New London Day revealing the secret memo of
11 how Waterford's First Selectman Sheridan brought a
12 professional public relations agent, Ron McKeown, to Bruce
13 Kenyon with a plan to form a phony independent grassroots
14 group named the Friends of Millstone, with the intention
15 that it be very useful for public relations in the community
16 and also for testimony in front of this very body, wherein
17 Mr. Kenyon was jubilant and felt it was too good to be true
18 and exclaimed, "Let's launch. Awesome."? Have you seen
19 that? I saw that in my local paper. You choose not to see.

20 I find it interesting that Long Island residents
21 are deeply concerned that in case of a nuclear accident,
22 under the existing regulations, they have no evacuation plan
23 and no escape, no means of escape. The NRC has closed its
24 mind and their reasonable concerns have been dismissed.

25 Change, meeting community needs is not on the

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1 NRC's agenda. Regarding Millstone 2 restart, you create
2 criteria and then you don't follow it. You delay your
3 enforcement indefinitely.

4 Although NU spent countless hours and money fixing
5 problems and retraining, you in the NRC haven't addressed
6 your problems. The incompetence of the SPO in not -- in
7 identifying and not enforcing level 1 severity
8 investigations as cited in Bolwick's investigation and the
9 OIG report. It is appalling.

10 Regarding Millstone 2 restart, at Millstone right
11 now the person who was involved in violating the law and
12 having Jim Plum take illegal samples into Long Island is
13 still working, as a matter of fact, is site-wide chemistry
14 tech there. The person who was involved in putting people's
15 lives at risk in the 442 valve is still managing people at
16 Millstone. People that have been involved in harassment are
17 still working at Millstone.

18 There is no time for me to elaborate the list of
19 examples of the NRC's closed-mindedness. We have no
20 confidence in the NRC's will to protect our communities and
21 our health and safety, therefore, a good sufficient reason,
22 we are opposed to the restart of Millstone 2.

23 If you have hearts, you have hardened them. If
24 you have eyes, you have blinded them. If you have minds,
25 you have closed them. And if you have souls, you have sold

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1 them to the nuclear industry long ago.

2 W.E.B. DuBois has a quote, "If this country

3 continues on its present course, it will become a nation of
4 fools and hypocrites. Fools, because knowing the difference
5 between right and wrong, you choose to do what is wrong.
6 Hypocrites, because knowing what you do is wrong, you
7 pretend to be doing what is right."

8 COMMISSIONER JACKSON: Thank you. Mr. McKeown.

9 MR. McKEOWN: Good afternoon. My name is Ron
10 McKeown. I represent an organization which I am very proud
11 to state that I am the one and the only that thought of
12 creating it. That is the honest to God truth as thousands
13 of people who have supported Friends of a Safe Millstone
14 have attested to.

15 Before I get started, what I would like to do is
16 just mention our neighbors across Long Island Sound. I
17 think the industry and the NRC is missing an opportunity to
18 give appropriate attention at some level, and some due
19 consideration to our neighbors across Long Island Sound. I
20 have the opportunity to speak with a number of the assembly
21 persons and leaders and some of the community organizations
22 over there, and I think the Commission would be well served
23 if it would think that the continuum of options available to
24 Long Islanders may be greater than is perceived.

25 Commissioners Dicus and Merrifield were very

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1 open-minded when recently Friends of a Safe Millstone met
2 with them and I appreciate that. And to that end, we will
3 be forwarding to the Commission some ideas about what else
4 is on the continuum of options to give our neighbors the
5 same level of consideration and respect that we would want
6 ourselves. So to that end, we will forward that to you.
7 But I do think that the Commission could open its mind a
8 little bit more and be a little bit more creative about some
9 of the things our neighbors across the sound could use as a
10 consideration.

11 About a year ago I spoke to you and I told you of
12 whispers that I had heard over the years, whispers of
13 negativity that I had heard at PTA meetings and at church
14 meetings, and with Girls Scouts and Boy Scout groups, and I
15 had heard them for years about Millstone Station. And I
16 talked with you about how often I meet with large numbers of
17 community groups, obviously, unaffiliated with anything
18 energy-wise.

19 The whispers have stopped relative to the
20 environment, there are no whispers. I am carving out, of
21 course, activist organizations on one side or another, or
22 whatever side. But the truth is the mainstream citizenry no
23 longer whispers and the employees no longer whisper about
24 safety concerns they have. That I could not say to you a
25 year ago, a year-and-a-quarter ago, but now I hear no more

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1 whispers.

2 Part of that I think is there's two continuums
3 going on here. There is a continuum of rectification and
4 there is a continuum of normalcy. And the continuum of
5 rectification is really the technical side that you have
6 involved yourselves with Unit 3 and safety conscious work
7 environment. But I would look for the signs of normalcy
8 from the community, and some of those signs are really very
9 clear. In the last eight months the amount of unaffiliated
10 mainstream citizens in Southeastern Connecticut who have
11 attended NRC hearings, if you carve out the interested
12 groups, has plummeted to as low as two, three people, to as

13 high as maybe eight or ten, your staff would know better.
14 Last July and last August, I think it was, in the
15 spirit of reconciliation giving credit to organizations such
16 as the Citizens Regulatory Commission, Citizens Awareness
17 Network and other organizations, all the mayors and first
18 selectpersons, as well as the state reps and state senators
19 spoke about the need for support, reconciliation of the
20 employees.

21 I was at a breakfast meeting of 200-300 community
22 leaders of Southeastern Connecticut where Mr. Kenyon was
23 asked to make a promise. He was asked to make a promise to
24 run a very conservative operation, to close it down if there
25 was a hiccough. And he has done that, he has kept his

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1 promises. We see no promises that he has made that he has
2 not lived up to. Maybe he could make some more, but he has
3 lived up to his promises and now I see some people turning
4 the fact that it played it conservative against him, and
5 that is probably not fair.

6 I think great praise is needed to be given to all
7 the activist groups for a heightened level of
8 responsibility, to the press for reporting, being more
9 sensitive to health and safety issues that are true and
10 untrue about nuclear safety.

11 So, in general, we see a great sense of the
12 continuum of normalcy is moving forward as a continuum of
13 rectification is moving forward.

14 And, lastly, just a small sign of how the
15 community is attempting to deal with this and has seen that
16 the NRC, the firm hand of the NRC has stepped forward and is
17 swinging the bat correctly. It is very clear that it has
18 reached deeper, and one of those -- just this past two weeks
19 I have had conversations with priests and ministers, and we
20 are going to, with some priests and ministers, there is
21 going to be a series of some Thanksgivings at churches where
22 people will be asked to come forward and help to give thanks
23 for the rectification, a heightened level of safety and
24 security, as well as the fact that divergent groups have
25 come forward and worked together to make the area safer and

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1 the plant safer. So I thank you for your time over the last
2 year-and-a-half, and, Chairman Jackson, as you move on, I
3 wish you well.

4 COMMISSIONER JACKSON: Thank you.
5 Mr. Sheridan.

6 MR. SHERIDAN: Thank you. Tony Sheridan, First
7 Selectman of Waterford. I guess it is my hope that we can
8 stop meeting like this. It has been a long three years. It
9 is not that I don't enjoy your company, and I certainly
10 enjoyed having you to Waterford, Dr. Jackson, but I think
11 that we have come a long way since -- was it valve number
12 254 that was -- the attempts to repair it, 45, 55 times
13 whatever it was?

14 We have come a long way since I had to write a
15 letter to the former President of NU in very strong terms
16 suggesting that he rehire Paul Blanche. Paul Blanche was
17 indeed an important critic to have on board, a man of high
18 standing, moral and ethical standing, and that his
19 termination from Northeast Utilities was wrong.

20 We have come a long way since I had to have a very
21 bitter argument with I believe a fellow by the name of

22 Martin. I could be wrong on the name. I hope there is no
23 Martin working for NRC today, but I think his name was
24 Martin. When I read in the local paper that there was a
25 secret meeting planned between Northeast Utilities and NRC

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1 and I, obviously, felt that there was something very
2 seriously wrong that they would have to have a secret
3 meeting, and that anything they discussed couldn't be
4 discussed in public. That just didn't sound or fit right
5 with me.

6 I lost the argument, I wasn't invited to the
7 meeting. But, nevertheless, I think we have come a long
8 way. It has been a long three years, and most of you have
9 been very much a part of it. We have all learned a lot. We
10 are not as naive as we were.

11 And I say we have come a long way because when it
12 was suggested that Millstone -- I believe the suggestion was
13 made to Bruce Kenyon that Millstone management might benefit
14 by having a Community Advisory Committee, the suggestion was
15 heard and we have a Community Advisory Committee. We call
16 it MAC. We meet on a regular basis.

17 Most recently when we met with MAC, two, three
18 meetings ago, we discussed the possibility of addressing
19 some of the environmental issues. How can we better do it?
20 Because Lee Olivier had experience with a ring monitoring
21 system in a previous community, that suggestion was brought
22 to the floor and within a couple of meetings, it was
23 approved.

24 I don't know if you know of that, but this is a
25 system that will allow the monitoring of the atmosphere

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1 around Millstone. I believe it will monitor it every two
2 minutes round the clock. And what is most important here,
3 and I can't underline this enough, but what is most
4 important here is that it is not controlled by Millstone.
5 It is controlled by the local community college, Three
6 Rivers College. The high schools in the area, Fitch High
7 School, I believe, Groton High School, New London High
8 School, Waterford High School and East Lyme High School, and
9 I believe two or three communities in Long Island will be
10 eligible to receive the equipment, the computer equipment
11 and the monitoring system to partake in this study. In
12 Waterford we are going to have a curriculum built around it
13 for the junior high school and high school students.

14 That couldn't have happened -- that wouldn't have
15 happened three years ago. It simply wouldn't have happened.
16 We wouldn't even have had an opportunity to bring that kind
17 of an idea to the floor. It happened today and I am proud
18 to say that it is a result of the type of enlightened people
19 we have now in management at Millstone.

20 Will they make mistakes? I am sure they will.
21 They will continue to make mistakes. But at least now we
22 know about them, and we have an opportunity to work with
23 them to correct those mistakes.

24 I want to talk a little bit about -- Ron brought
25 up the whole question of the people in Long Island. I

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1 listen to -- I happen to live close to the water, my
2 favorite radio station is NPR out of Long Island. And I
3 know the people over there are genuinely concerned, and I
4 gather there are some here today. And I want them to know

5 that I have a family in Waterford. The majority of people
6 who work at the plants have families in Waterford. The
7 people who serve on our boards and agencies, our planning
8 and zoning, our Conservation Commission, have families.

9 We are a nuclear community. We perhaps have a
10 little of an advantage here in that we grew up with nuclear
11 power. At any one time of the week or month, we have 25 or
12 30 of the most powerful nuclear power vehicles going up and
13 down the Thames River. That has been happening for the
14 better part of 40 years, so we are perhaps more accustomed
15 to the whole concept and understanding of nuclear energy.

16 I recognize and acknowledge the residents of Long
17 Island who have a concern. But what I would like to do is
18 reach out and have them come to Waterford. I will see they
19 get a tour of the plant. They don't have to come through me
20 if they don't want to. They can go directly to the plant
21 themselves. I am sure the people at the plant can see that
22 they will get a tour.

23 I can introduce them to some of finest scientists
24 in the world who live and work in Southeastern Connecticut
25 with the nuclear industry. These people also have families

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1 who are born, brought up and reared in Waterford and New
2 London and the surrounding community.

3 Are we concerned? Of course we are concerned. We
4 want safe plants, but I think we finally have a management
5 at Northeast Utilities who are willing to work with us, who
6 recognize that they have to be sensitive to the community
7 and actions speak louder than words. They are being
8 sensitive to the community and for that, I very much
9 appreciate it.

10 Finally, trust. Community trust is very, very
11 hard to regain. It was lost, but the ring monitoring system
12 and the other ideas that are being floated before management
13 to help deal with the lack of trust and the regaining of
14 that trust are being heard, and for that, I much appreciate
15 it.

16 I would like to thank the Commissioners for their
17 work. I know, Dr. Jackson, you have come to Waterford a
18 couple of times already. That was very much appreciated
19 and, hopefully, before you vacate your chair, we can have
20 you back to bring some closure to this rather sad and
21 sorrowful three years. Thank you very much for your time.

22 CHAIRMAN JACKSON: Thank you.

23 Mr. Sheehan.

24 MR. SHEEHAN: Chairman Jackson, NRC Commissioners,
25 thank you for this opportunity to participate in the public

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1 meeting on the restart of Millstone 2 nuclear power plant.
2 My name is John W. "Bill" Sheehan, and you can blame my
3 mother for the "Bill." I'm a resident of Waterford,
4 Connecticut, and a member of the State's Connecticut Nuclear
5 Energy Advisory Council, NEAC. At prior meetings in written
6 statements the NEAC cochair, Terry Concannon, and
7 vice-chairman, John Markowitz, have described the statutory
8 basis, charter and activities of NEAC, and unless you
9 require additional information, I won't give it.

10 I do want to add, though, a thank you to the
11 Commission and its staff for the cooperation that they have
12 given NEAC when our only pulpit is a bully pulpit, because
13 we're just a group of volunteers, for participation in the

14 ICAVP process, and the ability to be involved in the
15 cobriefings. Our last meeting was a combined meeting with
16 your staff in briefing the public, and I think it was very
17 successful and I hope that we can continue to do that.

18 My remarks concerning the readiness of Millstone 2
19 for restart -- I'm a former commanding officer of a nuclear
20 submarine, the USS Daniel Webster, SSVN-626 Gold. With that
21 past experience in mind, NEAC requested and Northeast
22 Utilities granted permission for me to become badged for
23 unescorted access to the Millstone site. So for over a year
24 I have periodically monitored the activities in the control
25 rooms of Millstone's 2 and 3 and report back to NEAC.

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1 My first observation of the Millstone 2 watch
2 standers was in September 1998, because obviously before
3 that I was watching Millstone 3. I'd like to share my
4 impressions of the past seven months with you. Although
5 your staff has spent many more hours than I in observing and
6 tracking the events, I hope my perspective will be useful as
7 you make your decision concerning the restart of Millstone
8 2.

9 I have included copies of each one of these
10 monitor reports as an enclosure to the written copy of my
11 testimony if you care to look at them.

12 All of my observations take place after normal
13 working hours or on holidays and weekends, because obviously
14 I am paid to do something else. My comments are provided to
15 the Millstone 2 director of operations for review and for
16 any action that he felt appropriate.

17 I have found the watch standers to be formal in
18 their communication with each other concerning plant
19 operations. The shift turnover procedures are thorough.
20 Watch section briefs, whether of a pending evolution or the
21 daily brief, were very complete. The operators were mindful
22 of reactor safety during the routine conduct of their
23 watches.

24 It's apparent to me that the lessons learned from
25 Millstone 3 had been carried over to Millstone 2. When I

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1 started doing these monitorings at Millstone 3 I would have
2 significant pages of comments. I have to say that in the
3 seven months I've been making these snapshot visits to
4 Millstone 2, my major comment, which was early in my visits,
5 was that the simultaneous turnover of watch stations during
6 watch relief may make it difficult to monitor potentially
7 changing plant conditions when the plant was operating. At
8 the time I observed this, there was no fuel in the core.

9 This morning Chairman Diaz asked how the, if you
10 want to call it, to use the term that we use in the Navy,
11 the deck plates felt about some of this. I also had the
12 opportunity to overhear what the operators talked to each
13 other about concerning some of the things that were going on
14 at Millstone. And believe it or not, in the reorganization
15 process, some of the control room watch standers and so on
16 were actually very enthusiastic about getting their resumes
17 ready to try to go on to some other position. In fact, I
18 know one of the watch standers -- this is over at Millstone
19 3 -- who was a control room operator when I started
20 monitoring is now a unit supervisor who has been moved up as
21 part of his qualification process and as part of their
22 reorganization.

23 In summary, it's my personal opinion, and I have

24 to say personal opinion because there was no vote of NEAC or
25 anything like that, that the front-line watch standers in

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1 fact are ready to restart Millstone 2. They have the right
2 mixture of enthusiasm and conservatism that I think is
3 necessary to operate a nuclear power plant.

4 So subject to your questions, this concludes my
5 comments, and I thank you for your attention.

6 CHAIRMAN JACKSON: What about the balance of
7 people in the plant? Do you ever have the opportunity to
8 observe equipment operators and --

9 MR. SHEEHAN: I spent most of my time watching how
10 things go in the control room. One, because it's easier for
11 me to be more familiar with that. I've walked through the
12 plant, and I'm impressed with the plant cleanliness and how
13 they've maintained it, and I do talk to the operators when
14 they come into the control room to see how they're -- but
15 most of the time I spend just watching their interaction.

16 I found from my Navy days that if you kind of
17 blend into the background and they are used to you being
18 there, that you learn a lot of things just by listening, and
19 that's the technique that I've used.

20 CHAIRMAN JACKSON: Mr. Barron.

21 MR. BARRON: Good afternoon, Chairman Jackson and
22 Commissioners of the Nuclear Regulatory Commission. I would
23 like to thank you for the opportunity that you've given to
24 Millstone Employee Ad-Hoc Group to speak with you today.

25 I am Robert E. Barron, a former shift manager on

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1 Millstone Unit 2, recently promoted to manager of online
2 maintenance for the Millstone Station. But it's as a member
3 of the Millstone Employee Ad-Hoc Group that I'm here to
4 speak to you today. I am joined by two of my coworkers here
5 in the audience, Donna Harrington Burnes and Edward F.
6 Dunden.

7 Although I am the one person sitting before you
8 today, I am privileged to speak on behalf of the 1,477
9 Millstone employees who signed this letter I'm presenting
10 today pledging our support for the safe restart and
11 operation of Millstone Unit 2. I'd like to take a moment
12 and read from the letter.

13 Dear Chairman Jackson, Commissioner Diaz,
14 Commissioner Merrifield, Commissioner Dicus, and
15 Commissioner McGaffigan:

16 As workers at Millstone Station, we know we are
17 the front-line people most responsible for the safe
18 operation of the Millstone Nuclear Power Station. In July
19 of 1998 we restarted Millstone Unit 3 and have operated the
20 unit for the last 10 months, demonstrating our commitment to
21 safety and conservative decision making. We have also
22 demonstrated our commitment to a strong, safety-conscious
23 work environment.

24 Millstone Station has developed and implemented an
25 excellent Employee Concerns Program. Our safety-conscious

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1 work environment is strong and effective because we, the
2 workers at Millstone Station, own it. We are an empowered
3 work force. We do not tolerate a lowering of standards, a
4 compromise of safety, or a neglect of our commitment to do
5 the right thing. We, the workers at Millstone Station, are

6 prepared to demonstrate our commitment for the safe
7 operation of Millstone 2.

8 Now let me explain why it was a very easy decision
9 for me to sign this letter. As the shift manager, there
10 have been many decisions that I have made or have been
11 involved in making that have impacted the organization and
12 the unit as a whole. If there was a degraded plant
13 component that I wanted to be repaired, it was repaired. If
14 a change in schedule was required to be made to support the
15 needs of the plant, it was supported. I have been supported
16 by my management in decisions and in changes in schedules
17 that I have made, and just as important, I trust management
18 to give me that support.

19 Why did I make those decisions? Because I was and
20 I continue to be responsible for doing the right thing
21 regardless of what position I filled in the organization.
22 When I was in senior reactor operator license school, my
23 responsibilities to operate the plant safely and to protect
24 the public were clearly explained to me, and I readily took
25 ownership of these responsibilities.

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1 But it was not just me. Every licensed operator
2 at Millstone Station has taken ownership of these very same
3 responsibilities. Our responsibility to operate the plant
4 safely and to protect the public has been and will continue
5 to be a real part of every decision that we make at
6 Millstone as we operate our plants. We recognize that doing
7 what is right, conservative decision making, placing safety
8 and quality as our first priorities is what we must do.

9 We are not just employees at Millstone, but we are
10 also members of the community, our community. The 1,477
11 signatures on this letter represent a commitment to our
12 friends, our neighbors, our families, our children, and our
13 grandchildren.

14 When I look around Millstone Station, I see the
15 dedicated professional people who care about doing and being
16 the best at what they do. Millstone Station is full of some
17 of the best people in nuclear power who could go anywhere in
18 this industry, but they choose to continue working at
19 Millstone.

20 I am proud to be an employee at Millstone Station.
21 We are certainly making a difference. We have taken
22 Millstone Station from a position of weakness and are moving
23 towards excellence. We are proud of that accomplishment.
24 We as a team with a unified vision and common goals will
25 strive towards making Millstone Station a top performer.

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1 On behalf of the employees of Millstone Station, I
2 respectfully request that you approve the restart of
3 Millstone Unit 2. If you have any questions, I'd be happy
4 to answer them at this time.

5 CHAIRMAN JACKSON: Ms. Guglielmo, please.

6 MS. GUGLIELMO: Hi. I'm here representing
7 Standing for Truth About Radiation Foundation, which is a
8 member of the growing Coalition against Millstone, which was
9 refused the right to speak today even though they represent
10 over 10,000 Long Island residents that live within the
11 designated -- federally designated EPZ, the ingestion
12 pathway zone.

13 I was asked to speak on their behalf, but in five
14 minutes I feel it's an unreasonable request.

15 I'm here to discuss Long Island's readiness for

16 restart. Long Island is most certainly not ready for Unit 2
17 restart. This is a unique situation because of the fact
18 that Long Island is a densely populated island that is
19 unable to evacuate in the event of a radiological emergency.
20 This is an issue related to Unit 2 restart.

21 NRC defense-in-depth safety philosophy is based on
22 the concept that the NRC must have reasonable assurance that
23 adequate protective measures can and will be taken in the
24 event of a radiological emergency. A philosophy is a way of
25 thinking that is applied to any decision that a body makes.

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1 What assurance have you been given that Long Islanders can
2 be adequately protected in a radiological emergency? Can
3 anyone answer my question, please?

4 COMMISSIONER DIAZ: I think that the Commission
5 has for a long time set up a series of measures, okay, that
6 are built one upon each other that provide reasonable and
7 adequate protection. The exclusion zone, everything that we
8 have done, built on the principle that we are, you know, in
9 a reasonable manner, not 100 percent certain, have done
10 everything that is possible as an agency to make sure that
11 public health and safety is protected.

12 I have never seen anything that anybody has
13 brought up that has, you know, a sound technical basis to
14 deny that. And if it exists, then I think this Commission
15 will be very open to see it. We have done that. We have
16 done it consistently. Okay? We have, you know, established
17 it, okay? Not only here but anywhere in the world that the
18 exclusion zones and the emergency preparedness that we
19 require in this country, you know, are protective of public
20 health and safety.

21 AUDIENCE MEMBER: Chernobyl. Did you ever hear of
22 Chernobyl?

23 MS. GUGLIELMO: I think that the idea of
24 Federal-level planning of ten miles being adequate is based
25 on the concept that beyond that ten miles the State and

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1 county emergency agencies will take over the protective
2 measures. That's a comment that Bill Travers made at the
3 Jamesport meeting held on Long Island before the Unit 3
4 restart. He was trying to explain to us that the NRC
5 doesn't make the statement that after ten miles there's no
6 risk, but that after that ten miles, the State and county is
7 responsible for providing emergency planning.

8 But our State and our county are not providing us
9 with any emergency planning. They're not able to. We have
10 not been given any assurances by anyone. All the emergency
11 managers of the east-end townships with the exclusion of
12 John Rano, who is in Southold and is within the ten-mile
13 Federal level zone, the rest of the townships, their
14 emergency managers have no instruction guides, no manuals of
15 how to proceed in the event that there's an emergency
16 regarding Millstone. And they're within the federally
17 designated 50-mile EPZ zone.

18 I informed these emergency managers that they're
19 in that zone. They didn't even know that. That's not
20 adequate protection. It's not even close.

21 I mean, you say -- it's been acknowledged here
22 today that the safety-conscious worker environment at
23 Millstone is still fragile. Well, so is the position of
24 Long Island residents. This is a unique situation. We're a

25 densely populated island. It needs to be taken into

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1 consideration.

2 When the five emergency shutdowns occurred at Unit
3 3 in the past year, residents would call my house, sometimes
4 late at night, in a panic, to ask me how bad it really was:
5 Should they be getting ready to try to get out or do
6 something to prepare for responding to these emergency
7 shutdowns, which we were told stress and strain every safety
8 system in the plant? I'd rather provide them with your home
9 phone numbers, because I cannot provide any assurance to any
10 of these people who are calling me up.

11 Recently there was a fire in Connecticut, last
12 week. The smoke from that fire reached Long Island in only
13 an hour. People who saw the smoke told me their blood
14 turned to ice in their veins because they thought it was
15 Millstone. They could see it from Montauk Point. I want to
16 submit copies of our local paper and all the editorials that
17 came up, because they clearly illustrate the lack of public
18 confidence.

19 People should not be expected to live with the
20 fear of being trapped in a radiological plume. Every level
21 of our government has made official statements of opposition
22 to the operation of this plant -- our mayors, our town
23 supervisors, our county legislators, our State assembly
24 members, our State senator, and our Federal Congressman.
25 What more do we have to do to make you acknowledge the

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1 unacceptable risk we are subjected to by the operation of
2 this plant? It was a mistake to site it so close to a
3 populated island in the first place. Only you have the
4 authority to correct this mistake.

5 You are mandated to protect public health and
6 safety. Long Island cannot be protected from the impacts of
7 an accident at Millstone. We refuse to participate in this
8 Russian roulette any longer, and I'm here to put a human
9 face before you that lives in daily fear of being trapped in
10 a radioactive plume.

11 I am also here to submit two legal petitions today
12 to suspend the operating license of the Millstone Station
13 based on -- one is based on the fact that the Fishers Island
14 plant is still inoperable, and you're not supposed to be
15 running that plant under those conditions. I am also
16 submitting 5,000 signatures of Long Island residents calling
17 for the shutdown of Millstone.

18 CHAIRMAN JACKSON: Thank you very much.

19 I think that Commissioner Diaz captured well what
20 the belief of the Commission is relative to emergency
21 planning and our view of the safety. I have taken note of
22 the fact that you've indicated that you feel that those
23 State officials who in fact are responsible outside the
24 ten-mile zone are not adequately prepared, and I will have
25 our senior managers look into whether there is a gap in that

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1 regard, because it is a State responsibility. But we will
2 look into that. And so I'm indicating this to our regional
3 administrator and our executive director for operations.

4 Mr. Besade.

5 MR. BESADE: Thank you, Dr. Jackson.

6 What I have here is a petition opposing the Unit 2
7 restart, and it's a petition from responsible people in

8 several walks of life, including former nuclear pipefitters,
9 a retired game warden, the majority of the members of the
10 Nionic Bay Commercial Fishermen's Association, and large
11 numbers of sport fishermen and many others. These
12 responsible citizens who signed the petition state they
13 would prefer to pay higher taxes rather than continue to
14 live in an unsafe environment caused by Millstone.

15 I also enclose a one-hour videotape of nuclear
16 safety issues, a TV show of 4/12/99 with Susan Perry-Luxton
17 as host, Tom Mastrianna, who was refused a chance to speak
18 here today with the Commissioners present here today. He
19 brought a four-inch pile of the latest documents of
20 violations present on the site today. I want the word of
21 the Commissioners present here today to promise to give me
22 their word they will view this tape before making a decision
23 to let the Unit 2 restart.

24 The people who signed this petition believe an
25 accident is imminent. Following the past history of NU and

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1 the overseer, the NRC, who let the Millstone and Connecticut
2 Yankee personnel, through ignorance or collusion, destroy
3 the environment and the people's lives around the plants, in
4 order to justify the bottom line of money, I personally have
5 witnessed the depletion of the many different species of
6 fish in our area since childhood to my senior years.

7 As a former union pipefitter, I have witnessed the
8 double standards conducted by the contractor, the utility,
9 the unions, the NRC, whose job it was to protect the public,
10 yet saw it was best to not bite the hand that feeds them.
11 As a union foreman, if I gave an order and a person's life
12 was lost, I would be held responsible along with the
13 contractor I work for. I would like to see you, the five
14 Commissioners, held in the same standards as others in
15 opposition.

16 I am continually being told by the people in power
17 mentioned above you are not going to win, do what you've got
18 to do. Well, let's look back since a brave number of men
19 came forward to put their livelihoods on the line exposing
20 defects in the plants and the NRC's minimal involvement in
21 fines. What bothers me most is the NRC's statement don't
22 you think NU has suffered enough financially? It is not the
23 NRC's position to worry about the financial condition of a
24 utility. Their sole purpose is to be a strong overseer and
25 protect the public whom they serve.

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1 I wish to allot my remaining time to Mr.
2 Mastrianna to address the very important safety issues that
3 will serve to prove that the licensee is in violation of
4 their own safety and license requirements as required under
5 Federal law.

6 Thank you.

7 CHAIRMAN JACKSON: Thank you. Any questions?

8 MR. MASTRIANNA: Can I just present a statement
9 for the record and put some things in the record?

10 CHAIRMAN JACKSON: You had indicated you were
11 going to give these documents to our secretary and that you
12 would submit your written statement for the record, as I
13 recall.

14 MR. MASTRIANNA: For the record, my name is Thomas
15 J. Mastrianna, a former long-time employee of Northeast
16 Utilities.

17 CHAIRMAN JACKSON: Thank you very much.
18 MR. BESADE: Thank you.
19 CHAIRMAN JACKSON: Commissioner Dicus, any
20 questions?
21 COMMISSIONER DICUS: No questions. Thank you.
22 MR. BESADE: No questions for me?
23 CHAIRMAN JACKSON: Commissioner Diaz?
24 COMMISSIONER DIAZ: No, thank you.
25 CHAIRMAN JACKSON: Commissioner Merrifield?

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1 COMMISSIONER MERRIFIELD: No, thank you.
2 CHAIRMAN JACKSON: I will certainly view your
3 videotape before I --
4 MR. BESADE: Thank you, Dr. Jackson.
5 I wish the other Commissioners also to see it,
6 because I want them -- they're all in charge of making the
7 decision whether this plant starts or not, correct?
8 CHAIRMAN JACKSON: Right, but they have to speak
9 for themselves.
10 I'm going to call forward the NRC staff.
11 Before you begin, Commissioner Dicus, who as you
12 know has a background in emergency planning, emergency
13 preparedness, has indicated that in fact we need to check
14 with the New York Emergency Management Agency to determine
15 what in fact is in place, because an ingestion pathway
16 exercise has been done, and if the 50-mile ingestion pathway
17 planning has not reached the counties and townships on Long
18 Island, then that should be done. And so I'm going to ask
19 you to check on that, and I will give you this.
20 DR. TRAVERS: Chairman, I may be able to make a
21 comment on that based on a letter we have from FEMA that
22 involves that very exercise.
23 CHAIRMAN JACKSON: I'll give you that anyway.
24 DR. TRAVERS: Sure. Absolutely.
25 CHAIRMAN JACKSON: But you're welcome to make the

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1 comment.
2 DR. TRAVERS: Sure.
3 CHAIRMAN JACKSON: Um-hum.
4 DR. TRAVERS: But let me -- I should begin --
5 CHAIRMAN JACKSON: Why don't you in fact go ahead
6 and make the comment --
7 DR. TRAVERS: Let me make a comment on that. We
8 were interested in the comment as it was raised, and Sam
9 happened to have a copy of a letter we received from FEMA,
10 December 29 of 1997 indicating that their report or -- yes,
11 a copy of their report associated with an August 8, 1997
12 full participation plume pathway exercise occurred actually
13 on October 8, 9, and 10 of 1997.
14 In that letter FEMA indicates that the
15 participants in that exercise included the State of
16 Connecticut, the city of Groton, the towns of East Lyme,
17 Groton, Ledyard, Lyme, Montville, Old Lyme, Waterford in
18 Connecticut, and the hamlet of Fishers Island in New York,
19 the city of -- let's see, the city of New London. I thought
20 I saw New York State in here as well. Let's see, where was
21 it? Oh, Fishers Island and New York State fully
22 participated in these exercises.
23 That's all I can say about it right now, but as
24 you point out, Commissioner, there is a 50-mile ingestion
25 pathway in addition to the ten-mile exposure pathway that is

1 tested from time to time and it would include Long Island as
2 well. So the expectation, and we can certainly check --

3 CHAIRMAN JACKSON: I think the point is let's just
4 check.

5 DR. TRAVERS: We need to check into it.

6 CHAIRMAN JACKSON: Right.

7 DR. TRAVERS: To make sure that there is no gap.

8 CHAIRMAN JACKSON: Right.

9 DR. TRAVERS: We'll be glad to do that.

10 CHAIRMAN JACKSON: Okay.

11 MR. COLLINS: Chairman, just for a point of
12 elaboration, we are aware of that particular circumstance,
13 and Tom Essig, the section chief of NRR over the emergency
14 preparedness area has experience in that area, has talked to
15 the licensee, and can in fact update you on the
16 circumstances if you'd like. If not, we can do it.

17 CHAIRMAN JACKSON: We can hear from him on his
18 discussion with the licensee, but we're talking about
19 checking with the New York State --

20 MR. COLLINS: Right.

21 CHAIRMAN JACKSON: Emergency Management Agency.
22 That's what I've asked you to do. But I'm happy to hear
23 from you.

24 MR. COLLINS: This is a result of coordinating
25 with the State, both Connecticut and New York.

1 CHAIRMAN JACKSON: I've asked for a specific input
2 from the State.

3 MR. COLLINS: I understand.

4 CHAIRMAN JACKSON: That comes from the State based
5 on your request.

6 MR. COLLINS: Right.

7 CHAIRMAN JACKSON: Okay?

8 MR. ESSICK: Would you like me to speak to the
9 ingestion pathway issue for -- ingestion pathway? I don't
10 believe that there's been an ingestion pathway exercise done
11 on Long Island that was --

12 CHAIRMAN JACKSON: Okay. So --

13 MR. ESSICK: There is one planned for the future.
14 Fishers Island is technically part of the ten-mile
15 EPZ.

16 CHAIRMAN JACKSON: Right. But not for Long Island
17 as such.

18 MR. ESSICK: It has been included. But an
19 ingestion pathway exercise has not been accomplished on Long
20 Island.

21 CHAIRMAN JACKSON: Okay.

22 Okay, Mr. Travers.

23 DR. TRAVERS: Good afternoon, Chairman. As you
24 know, the staff has been continuing extensive oversight
25 activities in connection with the three-plus-year shutdown

1 of Millstone Unit 2, and today we're here to discuss with
2 you our assessment of the issues related to the potential
3 restart of Millstone Unit 2. As you indicated, Chairman, at
4 the beginning of this meeting, in SECY-99-109 we provided
5 the Commission a written summary of our assessment of the
6 issues that we have been following and periodically updating
7 the Commission on.

8 In addition, in that paper we indicated to the

9 Commission that the staff believes that the order, the ICAVP
10 order, has been satisfied by virtue of the actions taken by
11 NU, Parsons Power, and the NRC staff, and also we
12 recommended the Commission provide its restart authorization
13 for Unit 2. So let me introduce the people at the table,
14 and we'll get right into our presentation, rather than take
15 any more time.

16 Sam Collins, of course, is Director of the Office
17 of Nuclear Reactor Regulation, and Hub Miller, the
18 Administrator of NRC Region I. Gene Imbro is the Chief of
19 the Mechanical and Civil Engineering Branch. Helen Pastis
20 is here, and Wayne Lanning is the Director of the Division
21 of Reactor Safety in Region I. And with that, let me turn
22 it over to Hub to begin the staff presentation.

23 MR. MILLER: Okay. Thank you, Chairman and
24 Commissioners. We will do three things. First, describe
25 very briefly the inspection and oversight activities of the

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1 staff at Millstone. Secondly, present our observations.
2 And then thirdly, draw or present our conclusions and make
3 recommendations regarding restart.

4 As Bill mentioned and as you've heard today, and
5 as you well know, NRC activities at Millstone have been
6 intense. In addition to the direct involvement of the
7 Commission, of course, Office of Special Projects was
8 formed, and carried the lead through the restart of Unit 3.

9 Upon the restart of Unit 3 last August, all of the
10 functions at staff level involved with oversight and
11 inspection were returned to the region except for the area
12 of the design inspections that Gene will talk about and the
13 area of safety-conscious work environment and employee
14 concerns. While the function returned to the region, it was
15 maintained as a special inspection directorate under
16 Wayne's -- Wayne Lanning's leadership, reporting directly to
17 me, which was still providing a heightened level of
18 oversight beyond what would normally occur for a plant.

19 Next slide.

20 CHAIRMAN JACKSON: Since I do want to ask a
21 question about safety-conscious work environment, what's
22 been the recent trend in terms of Millstone's site
23 allegations received and -- both in terms of numbers and
24 significance?

25 MR. COLLINS: I will address the numbers, Madame

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1 Chairman, perhaps you get give regional experience on the
2 issues. The trend at Millstone, going back to '97, looking
3 in the aggregate total number would be 57, '98 would be 31.
4 So far in '99, based on the first quarter, it is 11, so if
5 you project that over 12 months, it would be at 44, so the
6 trend would be increased.

7 An analysis of that trend, and it is probably
8 pretty mature to make any conclusive analysis because we are
9 looking at one quarter's information, but an analysis by Ed
10 Baker, who is the agency allegation advisor, would indicate
11 that its history would show it is not unusual to have an
12 increase at the time a plant prepares for restart, including
13 carrying through probably the first period of restart. But,
14 again, I have to be cautious with that because it depends on
15 the significance of the issues.

16 The average median, if you will, number for
17 calendar year '98 was six, and, again, that is compared to
18 31. And the median so far in calendar year '99 is one.

19 Again, if you cascade that to four quarters, it becomes
20 four, as opposed to 44. So the plant is still at an
21 escalated level and the trend is increasing.

22 MR. MILLER: And I think it is also important to
23 point out that we are still in process in evaluating these
24 allegations. So it is one thing to count just the number
25 and it is another thing to look at whether they are

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1 substantiated or not, which I don't think we can speak to
2 here today. But more broadly, we will get into this kind of
3 as we speak. I think in terms of the fundamentals that are
4 required for a strong safety culture and safety conscious
5 work environment, generally speaking, it is positive, but
6 that is getting ahead a little bit.

7 COMMISSIONER JACKSON: Fundamentals are as
8 fundamentals do.

9 MR. MILLER: Yes. And that is what I am talking
10 about, what we observe. As they perform, not just as they
11 talk the program.

12 Oversight activities -- if I could have the next
13 slide. As you are aware, we have conducted our activities
14 at Millstone following the processes that are framed in
15 Manual Chapter 0350. This is the chapter, the procedure
16 that applies to plants that are in a shutdown status. And
17 it is really that document that provided the framework and
18 the discipline to do a number of things.

19 First of all, make sure that our assessments, the
20 work being done by Millstone is complete and comprehensive
21 in addressing the issues that are essential to address prior
22 to restart, to assure that there is adequate coordination
23 among the many groups are involved. The activities at
24 Millstone have involved many groups in the region, but, of
25 course, also, many groups in the headquarters office, not

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1 just in the inspection arena, but there is a lot of activity
2 in the licensing arena, especially in the resolution of
3 issues that came out of the design inspections at Millstone.

4 Also, it served as an important tool to
5 communicate with the licensee what our expectations were,
6 and the public, over which issues of the many issues that
7 exist there were ones that needed to be resolved prior to
8 restart, and they do that upfront.

9 The second thing to talk about regarding the
10 process is that it was guided on an ongoing basis by a panel
11 of senior managers and staff from both the headquarters and
12 region. Wayne Lanning led the so-called Restart Assessment
13 Panel which assured that adequate resources were being
14 applied to the issues as we conducted our oversight
15 activities over the past several years.

16 There is a list here which I won't go through in
17 detail. This is a shortened list. There are some 55 items
18 that were identified in the restart action plan as issues
19 requiring resolution prior to restart. They included, of
20 course, the broad issues such as safety conscious work
21 environment, employee concerns, and the ICAVP, the broad
22 area of corrective actions, procedure upgrade, quality
23 assurance and so on.

24 Throughout this process, also, an important
25 element has been interaction with the public. We have held

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1 meetings with the licensee in an open arena. Members of the
2 public were offered the opportunity to observe and often did
3 observe our technical meetings and meetings at the site.
4 But beyond that, also, we met periodically with the public,
5 held meetings every six to eight weeks where we would
6 typically summarize the nature of the inspections that we
7 were performing and what observations we made and offer
8 opportunity for comment and discussion on those findings.

9 Next, if I could just speak just briefly about the
10 nature of some of the more significant inspections. First,
11 I think it is important to point out that we have maintained
12 at Millstone an expanded site coverage. We have had two
13 extra resident inspectors and, in fact, I would like to
14 introduce Dave Bowler, who is the Senior Resident Inspector.
15 He is here somewhere.

16 COMMISSIONER JACKSON: He is behind you.

17 MR. MILLER: Behind me. There he is. And Mr. Jim
18 Lingle, also, the Branch Chief from the Region is with us.
19 Dave Lundy, who is in charge, if you will, on-site. The
20 residents are backed up, though, by many specialists, both
21 from the regional office and from the office of -- from
22 Sam's office, looking at selected, specific issues that we
23 were in our restart list.

24 We conducted a number of major team inspections.
25 You have heard about them today on a number of occasions.

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1 The so-called 40500 team inspection, which is an inspection
2 that focuses principally on corrective actions. We also
3 assessed certain aspects of the Employee Concerns Program in
4 that inspection. This is an inspection, just to give you a
5 sense of it, that included eight inspectors for two weeks.

6 We conducted an operational safety team inspection
7 which was just completed last week. This was an inspection
8 that was done at the very end of the preparations for
9 restart by individuals who had not previously been involved
10 in inspections at Millstone. It was a dozen inspectors,
11 including inspectors from other regions and contractors.
12 The idea was for this group to come in and to sample many of
13 the issues that had been previously inspected, to sample to
14 give additional confidence that the observations that we
15 were making were correct and accurate, and this involves,
16 among other things, a heavy focus on operations in the
17 control room, off-hours.

18 We also timed it to observe activities as the
19 licensee began to change the configuration of the plant. We
20 learn a lot about, especially after a long shutdown, there
21 were questions this morning about, you know, what do we see?
22 What confidence can we have that after this long period that
23 the operators are ready? And so we felt it important to
24 watch a lot of the mode changes and other activities as they
25 reconfigured systems and did final testing.

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1 Gene Imbro will talk, of course, about the very
2 extensive inspections that we did in the design arena.

3 I want to say also it is important -- there were
4 questions this morning about the 17th area, engineering
5 quality. Engineering runs through much of this and it is a
6 crosscutting issue, and we get our insights through -- some
7 of these inspections perhaps more than others, but in really
8 all of the inspections, we are assessing broad areas such as
9 corrective action. Engineering is an issue. And, in fact,
10 as I turn this over to Wayne and to Gene, we have organized

11 the presentation of our observations not by the inspections,
12 per se, but we have chosen to frame them more broadly,
13 because it really is through all of these inspections that
14 we have gotten our insights.

15 So at this point, unless there are more questions?

16 COMMISSIONER JACKSON: Well, I do have one.

17 During the January 1999 Commission meeting on the closure of
18 the order related to employee concerns and safety conscious
19 work environment, the staff discussed performance of
20 inspection procedure for 0001, resolution of employee
21 concerns. And I am interested in how this procedure is
22 being factored into your plans?

23 MR. MILLER: We owe you an answer on that on May
24 10th and we will provide that answer. But we intend to do a
25 number of things with respect to employee concerns. In

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1 addition to the inspections that we will do, we will be
2 following the quarterly reviews that Little Harbor will be
3 doing with the licensee and monitoring --

4 COMMISSIONER JACKSON: Let me stop you for a
5 second. What are you going to tell us on May 10th, what you
6 are going to do, or that you have done it and some results
7 from it?

8 MR. MILLER: You asked for us to tell you what our
9 plan was.

10 COMMISSIONER JACKSON: Okay.

11 MR. MILLER: And we will give you a plan on May
12 the 10th. We are still coordinating that, the program
13 office and the region.

14 COMMISSIONER JACKSON: Okay.

15 MR. MILLER: Let me stop there and ask Wayne to
16 continue.

17 MR. LANNING: Good afternoon. I am going to
18 address the operations, maintenance and surveillance. The
19 next slide, please.

20 Operations are adequate to support restart. This
21 conclusion is based on the staff's assessment of the conduct
22 of operations and the support to operations. For example,
23 the fuel reload was performed well, and essentially
24 event-free. Also, operator performance during the heat-up
25 has been acceptable, although there were some minor valve

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1 alignment problems. These pipes --

2 COMMISSIONER JACKSON: Wayne, when you talk, could
3 you speak to what makes them minor? Because the Commission
4 has actually gotten quite a bit of correspondence on this
5 issue of valve alignments.

6 MR. LANNING: I will be glad to. They are minor
7 in the sense that they really were not safety significant.
8 They involved additions of inventory to the reactor coolant
9 system in two cases. Another case involved a reduction of
10 water from the spent fuel pool, a small amount. All of
11 these were attributed to procedure problems, and a lack of
12 adequate planning.

13 All these three events occurred at a time when
14 there was increased activity in the control room and so, as
15 a result of these events, Northeast stopped activities, took
16 a standdown, did a self-assessment and, really increased the
17 amount of resources available to minimize distractions to
18 the operators in the control room.

19 So it was a very valuable lesson learned type of

20 events with minor safety significance.
21 COMMISSIONER JACKSON: Well, there are two
22 aspects. One is the safety significance of the actual event
23 and the other is the potential safety significance of the
24 actual event. And so I guess what I think the Commission
25 needs some assurance with respect to is what do you -- I

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1 mean do you feel that what the licensee has done in terms of
2 lessons learned is sufficient to preclude a recurrence?

3 MR. LANNING: I do. And the OSTI, in fact,
4 checked that during their most recent inspection.

5 MR. MILLER: Coming out of an outage, I am sure
6 you appreciate this, there are numerous valve alignments
7 that have to be done. And I think in most of the startup
8 situations that I have seen, I can't recall a time where
9 there weren't a couple of errors coming out of the outage.
10 And what we look for is what does the licensee do to react
11 to that. I was -- we were concerned, but they did -- they
12 did standdown. They took strong action. And since that
13 time, the performance has been good.

14 COMMISSIONER JACKSON: Okay.

15 MR. LANNING: Communications, both among operators
16 and to other organizations were appropriate and effective.
17 We found good procedure quality and observed appropriate
18 procedure adherence in both operations and maintenance.

19 And, finally, our inspections found that licensed
20 operators are trained and qualified, and this included
21 just-in-time training and training for modifications. Next
22 slide.

23 Maintenance and surveillance are adequate to
24 support plant restart. We have found plant material
25 condition generally acceptable based on the equipment

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1 condition and the backlog of maintenance activities.

2 Similarly, surveillance testing was found to be
3 acceptable. Tests required for restart were identified or
4 have been completed. Inservice testing requirements were
5 met and surveillance procedures were of good quality.

6 Overall, maintenance activities were generally
7 good, including post-maintenance testing and preventive
8 maintenance. Management oversight was a strength and the
9 quality of the maintenance work was very good.

10 Finally, the work scheduling planning process is
11 adequate and improving. But given the backlog and emergent
12 work, the ability to complete work efficiently is still a
13 challenge. With time, emergent work decrease and more
14 experience will be gained in implementing a new work control
15 process, and the unit will be able to implement a 12 week
16 rolling schedule and improve the work process.

17 COMMISSIONER JACKSON: So that is the solution,
18 the 12 week rolling schedule?

19 MR. LANNING: Yes.

20 MR. MILLER: I think it is both that and continued
21 commitment of resources. I think that it is both, because
22 there is a large backlog. You have heard the company talk
23 about their commitments to stay after that backlog and it is
24 very important that they do that. It is not any one thing.
25 But I wouldn't underestimate the importance of improving

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1 their work control, work planning processes. That will be
2 ultimately an important part.

3 COMMISSIONER DIAZ: However, the separation of
4 what is safety significant and what is non-safety
5 significant has taken place, is being paid attention to, and
6 is obviously visible and the process of identifying credible
7 to you, is that correct?

8 MR. MILLER: Right. And I will speak more about
9 backlogs in one of the later slides, in the context of the
10 corrective action process.

11 MR. LANNING: No other questions? I will turn it
12 over to Gene.

13 MR. IMBRO: Thank you, Wayne. I would like to
14 speak about the ICAVP order and the staff actions in that
15 regard. I will start off with a little bit of background in
16 terms of the purpose of the order.

17 On August 18th, 1996 the NRC issued an order that
18 required that Northeast Nuclear Energy Company to implement
19 an independent corrective action verification program.
20 Specifically, the order directed NNECO to obtain the
21 services of an independent organization to conduct a
22 multi-disciplinary review of Millstone Units 1, 2 and 3.

23 The purpose of the review, of course, was to
24 provide independent verification that Northeast's
25 configuration management plan, which they refer to as CMP,

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1 had identified and resolved existing problems, had
2 documented and utilized the licensing and design basis to
3 resolve identified nonconformances, and had established
4 programs, processes, and procedures for effective
5 configuration management going forward.

6 The order required that the ICAVP was to be
7 completed to the satisfaction of the staff prior to the
8 heat-up restart. Next slide, please.

9 I will jump to the conclusions and then we can go
10 back and I will fill in some details. NRC oversight of the
11 implementation included six team inspections and extensive
12 observation of technical interactions and discussions
13 between Parsons and Northeast. These inspections and
14 observations, which I will discuss more fully on the
15 following slides, provides the basis for the staff's
16 conclusions that the Parsons' ICAVP was comprehensive and
17 conducted to a sufficient level of engineering detail to
18 allow us to reach a conclusion regarding the effectiveness
19 of Northeast's configuration management plan.

20 Considering the extensive scope of review and the
21 level of engineering detail reviewed, a relatively small
22 number of ICAVP significance level 3 discrepancies were
23 identified by Parsons and the staff. Based on the number
24 and low significance of these findings, the staff has
25 concluded that Northeast Configuration Management Program

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1 was effective in restoring Unit 2's conformance with its
2 design and licensing basis and that the NNECO configuration
3 management programs, and processes, and procedures are
4 adequate to maintain conformance with the licensing and
5 design basis in the future.

6 The Unit 2 ICAVP has been completed to the
7 satisfaction of the NRC staff and, therefore, the staff
8 would recommend to the Commission that the order be closed.

9 COMMISSIONER JACKSON: In terms of the on a go
10 forward basis maintaining conformance with the design and
11 licensing bases, so it is your judgment that that process,

12 configuration management process, is being implemented
13 properly by the workers?
14 MR. IMBRO: Yes, Chairman Jackson, we feel that it
15 is. I think we have looked directly at the design control
16 manual and the processes that Northeast uses to control the
17 design. We feel they are adequate. I think they possibly
18 could be improved. I think anything can be improved. But I
19 think right now --
20 COMMISSIONER JACKSON: I am talking about how they
21 are actually being done by the people.
22 MR. IMBRO: Implemented, yes. Yes, I believe that
23 they are being implemented appropriately. I think we have
24 seen over the two or three years that we have been on-site
25 the level of engineering products improve, and I think that

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1 is a reflection that the configuration management process is
2 being implemented properly.
3 COMMISSIONER JACKSON: What is the issue then with
4 the engineering quality?
5 MR. IMBRO: Excuse me?
6 COMMISSIONER JACKSON: What is the issue then with
7 engineering quality?
8 MR. IMBRO: Well, as we understood it, the --
9 well, the issue of engineering quality had to do with
10 calculational errors that were being made. I think that --
11 COMMISSIONER JACKSON: I thought there was an
12 issue with design change packages also.
13 MR. IMBRO: We looked design change packages.
14 COMMISSIONER JACKSON: That was spoken to by them
15 this morning.
16 MR. IMBRO: Yes. Well, okay, I guess, from our
17 point of view, I think we saw the design change packages
18 that we looked at, at least the relatively newer ones were
19 quite good. I think that from an engineering quality point
20 of view, again, there were calculational errors that were
21 being made, but I think they were relatively minor in
22 nature, but there were enough to cause the licensee concern.
23 I think they implemented, as I mentioned before, this
24 Quality Review Board.
25 We have seen the level, the quality level improve,

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1 again, over the time we have been there. So in terms of
2 engineering quality, I think, you know, certainly, it can be
3 better, but I think right now, I think it is adequate to
4 support restart.
5 COMMISSIONER JACKSON: Do you have a comment, Mr.
6 Lanning?
7 MR. LANNING: Well, I just like to take you back
8 to Unit 3, in the recirculation spray system, where those
9 modifications late in the process were not of good
10 engineering quality. And there were other examples where
11 engineering work was not acceptable. So it is really a
12 result of that they implemented this Quality Review Board to
13 improve the process of engineering work. I think we are
14 seeing the benefits of that.
15 COMMISSIONER JACKSON: So you have begun since
16 they implemented this Review Board, you have actually seen a
17 change, a step change in the quality?
18 MR. LANNING: I think so. In comparison with Unit
19 3, the engineering for MOTS, for example, Unit 2, have been
20 much improved.
21 COMMISSIONER JACKSON: Okay.

22 MR. IMBRO: Slide 10, please. Quickly, I would
23 like to go through the role that NRC played in overseeing
24 the ICAVP. The NRC staff has been extensively involved in
25 the development and implementation of the ICAVP from its

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1 inception. Some of the staff's ICAVP oversight activities
2 are listed on the slide, and I won't go through them all.

3 But, in addition to specifying the scope and depth
4 of the Parsons' review, the staff provided guidance in the
5 application of the four levels of ICAVP significance. These
6 were developed by the staff to provide a measure of safety
7 significance of the Parsons' discrepancy reports.

8 COMMISSIONER JACKSON: Are they exactly the same
9 as what was used for Unit 3?

10 MR. IMBRO: Yes, exactly the same. Yes. During
11 the implementation of the ICAVP, staff involvement focused
12 on assuring the independence of Parsons and that it was
13 maintained throughout the process, and that the review by
14 Parsons was technically comprehensive, critical in nature
15 and in accordance with the NRC approved audit plan and
16 communications protocol.

17 Staff also interacted frequently with members of
18 the Connecticut Nuclear Energy Advisory Committee to keep
19 them apprised of ICAVP activities, including the numerous
20 NRC monitored interactions between Parsons and Northeast
21 Utilities to discuss technical issues.

22 NEAC observed a large majority of these
23 interactions and observed most, if not all, of NRC's ICAVP
24 oversight inspections. The involvement of NEAC I believe
25 enhanced public confidence in the objectivity and

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1 independence of the ICAVP process.

2 COMMISSIONER JACKSON: What involvement did NEAC
3 have again?

4 MR. IMBRO: NEAC, they were in the role of
5 observers who observed the staff's performance or oversight
6 of the ICAVP. So, when we had phone calls where the
7 licensee and NEAC would discuss discrepancy resolutions, we
8 would inform NEAC and they would participate -- not
9 participate, but listen, listen to the call, monitor the
10 calls.

11 We informed them of our exit meetings and they
12 attended the exit meetings. They attended some -- they
13 observed in-process inspections, so they were quite active
14 in looking at how we were overseeing the ICAVP process,
15 particularly in maintaining the independence of the ICAVP
16 process.

17 COMMISSIONER JACKSON: But nothing with respect to
18 the scope of the reviews?

19 MR. IMBRO: No. No. The scope of the reviews was
20 determined by the staff. But I will point out, though, that
21 NEAC assisted in the public selection of the two final
22 systems from a group that were pre-approved by the staff.
23 So in that sense, they participated in the scope, but I
24 mean, again, the scope was really defined by the NRC.

25 Slide 12, please. I'm sorry, I skipped one.

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1 Slide 11.

2 COMMISSIONER JACKSON: Eleven.

3 MR. IMBRO: Just, again, a lot of this was covered

4 by Dan Curry and Eric Blocher from Parsons, but just quickly
5 to go through the scope of the ICAVP review. The ICAVP
6 review was developed by the staff to be a comprehensive
7 review of the effectiveness of NNECO's programs to identify
8 and correct nonconformances with their design and licensing
9 bases.

10 In SECY-97-003, the staff proposed a three tier
11 approach to verify configuration control from several
12 vantage points. Tier 1 was an independent, vertical slice
13 review of 11063 maintenance rule, group 1 and group 2
14 systems, and the interfaces between these systems and
15 approximately 50 support systems, and, again, to verify the
16 compliance with their licensing and design bases.

17 COMMISSIONER JACKSON: How did you pick the 11 as
18 opposed to 35?

19 MR. IMBRO: Well, we used --

20 COMMISSIONER JACKSON: What was the basis of the
21 selection is what I am really saying.

22 MR. IMBRO: We looked at several things. First of
23 all, we looked at risk insights. We looked at system
24 complexity in terms of the number of components. We looked
25 at past problems with the systems. So we tried to select

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1 the systems that were the most likely for us to observe
2 problems in.

3 Tier 2 was a review of approximately 750 critical
4 design characteristics and initial plant operating
5 conditions to verify that the 56 systems credited with
6 accident mitigation were able to perform as assumed in the
7 accident analyses in the FSAR.

8 Tier 3 was a historical review of 14 change
9 processes, other than the principal design change process,
10 to verify that past changes made to these processes did not
11 introduce noncompliances with the unit's design and
12 licensing basis. The Tier 3 review, as Parsons mentioned,
13 included approximately 460 changes to Unit 2 since the
14 issuance of the operating license, so it was a review over
15 the continuum of time from the operating license to present,
16 and Parsons has expended approximately 223 hours -- 23,000
17 hours of technical review.

18 COMMISSIONER JACKSON: What are we to take away
19 from that bullet?

20 MR. IMBRO: That the review is very comprehensive.
21 Just by the magnitude, the sheer magnitude of the hours, and
22 the level of detail. We observed -- they looked at close to
23 a thousand calculations. They looked at more than a
24 thousand drawings. They have reviewed procedures from
25 emergency operating procedures, normal operating procedures,

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1 abnormal operating procedures. They have reviewed component
2 specifications. They really dug deeply.

3 So I think what you can take -- at least what I
4 take away from this is that Parsons' review was thorough and
5 that the conclusions they reached are supportable and we
6 would concur with them.

7 Next slide, please. Just a quick discussion of
8 ICAVP inspection results. NRC's oversight of ICAVP, as I
9 had indicated before, included six team inspections that
10 represented approximately 9,500 hours of inspection. The
11 purpose of these inspections was to provide confidence that
12 Parsons' reviews were comprehensive and that the Northeast
13 configuration management plan was effective in restoring

14 compliance with the unit's licensing and design bases.
15 Two of the inspections we conducted were similar
16 to the SSFIs that were described in the NRC manual. One of
17 the SSFIs focused on a system that was being reviewed by
18 Parsons, the aux feedwater system. The other focused on a
19 system that was included in Northeast's CMP. Northeast
20 looked at all 63 systems. But this reactor building closed
21 cooling water system was not a part of the Parsons' review
22 and we did that sort of to get a cross-section of things
23 that were being reviewed both by Parsons and things that
24 were not being reviewed by Parsons, just to be sure that
25 there was a uniformity.

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1 The staff also conducted inspections similar to
2 Parsons' tier 2 and tier 3 reviews. And, lastly, we
3 inspected -- we did a detailed inspection of the corrective
4 actions for issues that were identified by Parsons, by us in
5 our inspections, and also some things that were identified
6 by Northeast during their CMP that were not part of the
7 Parsons' review.

8 None of the issues identified by NRC would have
9 prevented a safety system from performing its intended
10 function. Therefore, the NRC findings were determined to be
11 in safety significance equivalent to ICAVP level 3s -- level
12 3 discrepancy reports.

13 Overall, the significance and number of the NRC
14 identified violations we feel is small, particularly in view
15 of the level of inspection effort and the depth of our
16 team's reviews.

17 COMMISSIONER JACKSON: So those are your outcomes.
18 Because what you have cited are the outputs, 23 violations.

19 MR. IMBRO: That's right. That's correct.

20 COMMISSIONER JACKSON: Et cetera, et cetera. So
21 the outcome is that the significance is --

22 MR. IMBRO: Yes, that is right. And I would just
23 continue on that the number of Unit 2 violations resulting
24 from the ICAVP is comparable to that identified on Unit 3.
25 With only one exception, the NRC violations were enforcement

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1 severity level 4s, contrasted to ICAVP severity level, which
2 is the lowest, of course, as you understand, the lowest
3 enforcement severity level. And looking -- judging these
4 against the new enforcement guidelines for level 4s, the
5 majority of these would have been NCVs, so the significance
6 was not very great.

7 There was only one enforcement severity level 3
8 violation, I think as the licensee has alluded to. This was
9 a violation for failure to perform a 50.59 analysis on tech
10 spec interpretation.

11 Again, the Northeast corrective actions to the
12 above violations, we feel were adequate not only to correct
13 the specific instance of the violation, but also to explore
14 the breadth of the violation and examining other systems to
15 see if similar situations occurred. We feel that they did a
16 good job in that expansion of scope, and they also corrected
17 any violations that -- or any other discrepancies that they
18 identified.

19 Therefore, in accordance with the criteria
20 contained in our January 30th letter for ICAVP scope
21 expansion, we did not feel it was necessary to expand the
22 ICAVP scope based on the quality of the licensee's

23 corrective actions.
24 Again, based on the above, the staff concludes
25 that the ICAVP order has been satisfactorily completed.

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1 COMMISSIONER JACKSON: To what extent, in terms of
2 -- well, never mind. I'll wait. I'll wait.

3 MR. IMBRO: Okay. This concludes my presentation
4 regarding ICAVP. At this point, if there are no further
5 questions, I will turn the presentation back to Mr. Miller.

6 MR. MILLER: The next two areas that I will talk
7 about, again, are croscutting issues, and so it is best to
8 review these after the others. The first has to do with the
9 corrective action process and, based on all of our
10 inspections, we have drawn the conclusion that sufficient
11 program has been made with respect to the corrective action
12 program to support restart.

13 The identification of problems is done at a low
14 threshold. I think the numbers that you saw this morning
15 speak to that. The inspections that we have done, where we
16 have looked at individual items that are in the backlog of
17 items, and where we checked to see how the licensee
18 addresses those issues has indicated that they are generally
19 thorough and lead to a good result.

20 There is the backlog. You have talked a lot about
21 it. We have talked a lot about it today. Our feeling is
22 that the backlog is adequately prioritized. We have looked
23 at it, first of all, from the point of view of are there
24 items in the backlog that could impact on the operability of
25 safety equipment, impact on the ability to meet technical

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1 specifications and the like, the very obvious things.

2 We looked at their process for making these
3 judgments, the criteria that they have applied. Beyond
4 that, we have sampled individual items to make our own
5 judgments about those and we have concluded that they have
6 made the right judgments regarding what is required prior to
7 restart and what can be left.

8 COMMISSIONER JACKSON: To what extent did the NRC
9 staff use actual risk insights in making those judgments?

10 MR. MILLER: Well, we used the PSA, the leader of
11 the OSTI was one of our SRAs, or senior reactor -- senior
12 risk analysts, and we consulted with the PSA routinely in
13 selecting the samples that we took and picking the items,
14 the specific items that we looked at. And in judging, I
15 know on a number of occasions, I saw specific analyses on,
16 you know, issues that got us into looking at risk
17 specifically on an item by item basis.

18 COMMISSIONER JACKSON: Okay. You say you looked
19 at it on an item by item basis. Did you also evaluate the
20 cumulative effect of the backlog from a specific risk point
21 of view?

22 MR. MILLER: Well, we pushed the licensee to do
23 that. There is no way that I know of to do that in any
24 rigorous way that you can tie to a PRA. But it is on our
25 mind. I think that --

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1 COMMISSIONER JACKSON: I disagree, by the way.
2 But it is okay. But I disagree.

3 MR. MILLER: We challenged the licensee after the
4 restart of Unit 3 and there were a number of events, and you
5 have talked about those this morning. I think that there

6 was a question of whether or not they had given adequate
7 attention to the cumulative burden on operators. And it
8 why, in a sense, you have to look at not just the items that
9 are clearly and plainly an impact on the operability of
10 equipment, but also look at -- the number does become
11 somewhat important, and I will give you an example.

12 One of the plant trips was the result of a main
13 steam isolation valve going shut. And that was the result
14 of a solenoid that failed. Now, it was known that there
15 were some vulnerabilities with those solenoids. Every
16 problem doesn't get fixed right away. It wasn't a problem
17 by looking at it. On the face you would say it wasn't an
18 immediate issue.

19 So a backlog and a reduction in the number of
20 backlog does become important because, you know, the backlog
21 can have these kinds of issues.

22 So, our judgment, just generally, Chairman, is
23 that good decisions were made regarding restart and that the
24 plans that they have laid out and the commitments that they
25 have now made to work that backlog is reasonable.

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1 Licensee internal oversight --
2 COMMISSIONER MERRIFIELD: I am just going to
3 interrupt you. Before we go to the next slide, I just want
4 to ask a sort of concluding question to that slide number
5 13. Given the importance of a sound Corrective Action
6 Program, this is obviously something we're going to need to
7 be vigilant about maintaining our -- keeping on top of the
8 licensee in that regard, because sometimes faltering in a
9 corrective action program can be an indicator of problems in
10 other areas.

11 CHAIRMAN JACKSON: That's how we got here.

12 COMMISSIONER MERRIFIELD: Right. How do we, going
13 forward, what kind of indicators are we going to be using to
14 make sure we've got an early indication if there are
15 problems in the future?

16 MR. MILLER: That might be the -- a full
17 discussion of the new program, for one. Certainly there's
18 that, but there's also, you know, looking at, in every
19 inspection, as a byproduct of every inspection, do we have
20 evidence that the licensee is identifying their own issues
21 and consistently getting to the root cause and fixing them
22 in a timely way. We've preached that as a fundamental
23 objective of every inspection, as a byproduct of every
24 inspection, and that sensitivity is heightened, has been
25 heightened over the past several years as we've learned the

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1 lessons from Millstone, but, Sam, if you want to add to
2 this.

3 MR. COLLINS: I'll try to be partially responsive.

4 We have -- Chairman, you touched on this earlier
5 when you mentioned, you know, Chapter 4501, we have an
6 additional effort that we're working on as a result of the
7 Commission paper that was provided in July having to do with
8 safety conscious work environment, which again focused us on
9 the Corrective Action Program as one of the options that was
10 provided to measure safety-conscious work environment and
11 the disposition of issues that are brought forward by
12 individuals.

13 In the Commission direction which occurred in
14 August to that, the direction was to go forward and look at

15 the existing program but enhance that program having to do
16 with the corrective action program inspection procedure,
17 which is 4,500, and provide for training insights and
18 additional enhancement of our processes. We went out to the
19 regions in late October and asked for them to comment on the
20 procedure and provide us recommendations for training. That
21 came in at the end of the year. And we're now revising that
22 procedure to include those insights to try to get to these
23 issues in the future.

24 These enhancements will be used at the followup
25 corrective action inspection which is already scheduled by

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1 the region to take place sometime after discussions here
2 today. I think May is the proposed date for that at this
3 time. In addition, the new oversight process depends quiet
4 heavily on the Corrective Action Program to be robust and to
5 be functional.

6 We intend to inspect that area directly, and there
7 is also a preliminary view that is shared by the working
8 group of which licensees are a member that performance and
9 the trends in performance can be directly related to a
10 Corrective Action Program. There's a cause and effect.
11 Licensees will be unable to maintain the high measurement of
12 performance as indicated by the individual performance
13 indicators if there is a problem in the Corrective Action
14 Program. There's a direct nexus there. The pilot plants
15 will be used --

16 CHAIRMAN JACKSON: Is the risk-informed baseline
17 inspection program going to look at some -- at certain
18 aspects?

19 MR. COLLINS: It will.

20 CHAIRMAN JACKSON: Of the Corrective Action
21 Program?

22 MR. COLLINS: It will. It will not look at it in
23 depth, but it will test it as Hub mentioned as a matter of
24 the disposition and of issues that are found.

25 CHAIRMAN JACKSON: Um-hum.

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1 MR. COLLINS: And then --

2 CHAIRMAN JACKSON: I'm glad to hear that, because,
3 I mean, let's face it, Northeast Utilities had a Corrective
4 Action Program before we ever got to where we are, and so --
5 and we talk a lot about problem identification, low
6 thresholds for identifying them, and then, you know,
7 sometimes we feel there may be weakness in getting to root
8 cause, et cetera, and we talk about that. But then once
9 you've sort of tossed everything over into the corrective
10 action basket --

11 MR. MILLER: Chairman, I've got a strong bias on
12 this, and it is that an inspection like a 4500 inspection,
13 which goes in and looks at the corrective action process,
14 gives you a lot of insights, but the greatest insights come
15 from the inspectors who are out looking at the work in a
16 direct fashion, looking at maintenance, looking at
17 engineering and the like, and making a judgment of the
18 things that we find and see, is the licensee finding those
19 same things, and where we find either an individual issue or
20 a pattern of weakness that is not being picked up by the
21 licensee, that's our strongest evidence that a corrective
22 action process is not working.

23 CHAIRMAN JACKSON: Well, but --

24 MR. MILLER: And it's in the rollup of that --

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1 found --

2 MR. MILLER: Right.

3 CHAIRMAN JACKSON: Is in the end, and how that
4 affects the plant performance, is in the end the only
5 measure. Right? You can find what you want, and, I mean, I
6 can tell you that I know my brake pads are worn down and
7 that my, you know, tread on my tires are below some, you
8 know, limit, and that my oil, you know, is leaking, but the
9 real issue is if I'm going to get out onto the Beltway, am I
10 going to put new tires on the car? Am I going to put new
11 brake pads on the car? That's all I'm really talking about,
12 on a risk-informed basis. And that's the point. It's, you
13 know, not just that they identify. That's necessary.

14 MR. MILLER: Yes, I was going to get to that.

15 COMMISSIONER MERRIFIELD: Can I --

16 CHAIRMAN JACKSON: Please.

17 COMMISSIONER MERRIFIELD: If you don't mind.

18 CHAIRMAN JACKSON: Please.

19 COMMISSIONER MERRIFIELD: If I can phrase that in
20 the form of a question, perhaps. You know, there has been
21 some discussion today not only about the loss of confidence
22 in Northeast Utilities and their having to rebuild it but a
23 loss in confidence in the NRC. I've only been here for six
24 months, so I wasn't as intimate as the Chairman and the
25 other Commissioners have been in this. But given the

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1 changes that we have made in our inspection process from the
2 actions that are taken by our resident inspectors to our
3 regional inspectors to the activities undertaken at NRR, in
4 combination with the proposals that we have under way in our
5 new inspection and enforcement process, given your strong
6 opinions about these, Hub, are we in a position now where we
7 have greater confidence to say that we have learned lessons
8 from this activity and we made the changes necessary for us
9 to avoid putting ourselves in this position again in the
10 future?

11 MR. MILLER: I would say yes. Well, among other
12 things, the need to not only be sensitive to whether the
13 licensee is identifying issues in the first place but,
14 secondly, roll up to see if these things are being fixed
15 properly. And a lot of it is in the rollup. The objective
16 indicators that we are focusing on and that are part of the
17 new program in combination with inspection, what do they
18 tell you? How does the plant perform? It's the outcome.
19 And I think it's this focus on outcomes and improved
20 inspection. I think that it gives me the ability to talk to
21 the public and say I have confidence that we've --

22 DR. TRAVERS: I think the other thing is the goal
23 we've had in the new assessment oversight process has been
24 this emphasis on objective measures, how can we communicate,
25 how can we first understand and then communicate publicly

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1 well on our assessment of performance?

2 And we are now embarking on a pilot program that
3 we hope will be successful and demonstrate how we can use
4 these objective measures as part of an assessment strategy
5 to put ourselves in a better position to understand and
6 ultimately communicate our best thinking on performance

7 assessment.
8 The only other thing I would like to mention on
9 the emphasis that I think we need to strive for in
10 corrective action understanding is in connection with
11 assessment generally, but more particularly with the
12 Commission's recent approval of a new enforcement strategy
13 for severity level 4 violations, for example. Right now
14 based on that change licensees are putting problems that
15 even NRC identifies into their Corrective Action Program.
16 We are not intending to follow up on each one of those by
17 requiring nor examining the corrective actions that result.

18 The corollary to that is that we are emphasizing
19 the need to understand that the Corrective Action Program is
20 a healthy one and is in fact resulting in the appropriate
21 disposition of these issues as they arise. And it's really
22 the level of confidence we need to maintain to support the
23 working of that sort of enforcement strategy that we've
24 adopted recently.

25 CHAIRMAN JACKSON: Have you tied the loop? I

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1 mean, have you closed the loop in terms of what it takes to
2 be convinced that the Corrective Action Program is healthy?

3 DR. TRAVERS: Yes, and we are doing that in
4 connection with the inspection procedures that Sam made
5 reference to earlier.

6 COMMISSIONER DIAZ: Madam Chairman --

7 AUDIENCE MEMBER: Millstone should be shut down.
8 NRC needs to prove they're not a tool of the nuclear
9 industry by doing the right thing and shutting it down, and
10 you all now it. It's the worst one in the country, the most
11 likely disaster to happen next.

12 COMMISSIONER DIAZ: If I may go back to tying in
13 the cumulative, you know, effects of many things, and risk
14 insights. I do believe that it is very hard to extract from
15 cumulative say problems what, you know, an actual issue is,
16 and sometimes it is better, especially if you use risk
17 insights, to see which are the important ones and how they
18 propagate through the system, how they get fixed in the
19 corrective action.

20 However, like Hub said and like the Chairman
21 addressed, sometimes, you know, the size might indicate, you
22 know, and we have used the word "pervasive," you know,
23 problem, but it is difficult and it will become more
24 difficult, okay, rather than easier, when we really
25 risk-rank, you know, the type of issues, because we are

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1 going to be focusing on those which are of higher safety
2 significance, those who propagate through the system, those
3 are the ones that, you know, inspections will see from one
4 to the other, not only the single issue of the ones that
5 carried out from one area to another. And those are easier
6 to put, quote, in and sum them up that a lot of the simple
7 lower issues.

8 CHAIRMAN JACKSON: Oh, I agree. But we do have
9 this example of the circulating water screens, and, you
10 know, the plant trip that resulted where, you know, you have
11 the debris or the, you know, seaweed, and so you can focus
12 on that, but there's a degraded system that would, you know,
13 have the effect of allowing you to reverse the screens, and
14 if you're not looking at the fact that it's not just, you
15 know, the seaweed or sea grass intrusion but in fact whether
16 there's some degradation in the system that impairs its

17 ability to deal with that, then in point of fact that's an
18 example of what I call a cumulative effect.

19 You have the effect both of, you know, what's
20 going on in the water, what's coming in, and you have the
21 effect of a degradation in the system which you might think
22 by itself is not a big deal, but that if it compromises the
23 ability of the circulating water system to deal with a
24 particular thing, then it can have some operational effect.
25 And I haven't even put that into any, you know, risk ranking

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1 as such, but I'm just saying where you have a compendium of
2 things that conspire. And I think it's that kind of
3 vigilance that I think is important.

4 CHAIRMAN JACKSON: Yes. Mr. Collins?

5 MR. COLLINS: Yes. Just to be responsive to
6 Commissioner Merrifield's comment about public confidence in
7 Millstone, there are two forums to look at that in.

8 We have quite an extensive Millstone lessons
9 learned internal program, which we can provide the history
10 on to your staff and the status. I believe the real focus
11 of you question though was externally, and how are new
12 processes or is our decision-making going to help to
13 buttress or to shore up, provide some measure of positive
14 confidence, and although it will take a while to get there
15 certainly, I believe with the new oversight process there
16 are opportunities for that.

17 Those opportunities come very early in the process
18 as far as involving the external stakeholders and there our
19 stakeholders in Long Island are certainly a part of that.

20 The program office will consider and we certainly
21 would be receptive to any insights from the Commission of
22 whether it is the right thing to do and in the agency's best
23 interest to hold local meetings in the area of Millstone to
24 ensure that the individuals are aware and are educated on
25 our new process, because that process will be visible, it

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1 will be public, and like the other initiatives that NU
2 mentioned it will be in our mind a tangible indicator of
3 plant performance.

4 I think part of the history of Millstone, of why
5 we got to why we are here today and the trust issue was the
6 lack of information, and the lack of insights, along with
7 our processes which again warranted improvement and
8 hopefully we are moving down that road, so I think there is
9 room in that area, public confidence.

10 There is room in the understanding of where we are
11 going with our oversight process and what is available to
12 the public to measure actual performance as we move down the
13 road to certainly the operating units' performance and any
14 decision the Commission should make after that.

15 CHAIRMAN JACKSON: Okay. Why don't we go on.

16 MR. MORRIS: Next slide, 14. Northeast has
17 strengthened the internal oversight activity and this
18 includes quality assurance but not just quality assurance.
19 Also there are oversight panels, the self-assessments that
20 are done by the line management.

21 I think that the rollups, the overall assessments
22 that are being performed by QA have been good and you heard
23 the company talk today about having a certain standard that
24 was there before restart. They have increased their
25 standards as the units have come back online. The standards

1 for Unit 3 were higher than they were for Unit 2 or even the
2 startup of Unit 2 and so my sense is or our sense is from
3 the inspections that oversight is strong and certainly
4 acceptable and sufficiently strong to support startup for
5 the unit.

6 The next slide is just a very brief summary of the
7 challenges that Northeast faces. I think it is important
8 for us as we oversee the station that we keep in mind that
9 these challenges are on they will be restarting Unit 2, the
10 preparations for Unit 3, the Unit 3 outage are in process
11 now and they will going into that outage, the need to
12 improve the work control processes, continue to maintain
13 progress on the backlog and complete the site
14 reorganization. There's a lot there -- and at the same time
15 maintain the safety-conscious work environment and employee
16 concerns and so it is with this in mind that we will go on
17 to the next page, continue to provide close oversight.

18 We expect that during the startup of Unit 2 we
19 will have an augmented coverage of the startup activities,
20 that we will agree upon certain hold points in the power
21 ascension program, to review the results of each phase of
22 the power ascension program, the results, and review that
23 with the company before they proceed to the next level.

24 We will continue to provide upon their completion
25 of that some period of monitoring after they start the unit

1 up, also provide coverage of the outage --

2 COMMISSIONER MERRIFIELD: Excuse me, Chairman, if
3 I may, I actually had a -- you talked right through. I just
4 want to go back to the last slide for just one second.

5 You have indicated that the Staff believes the
6 programs and personnel at Millstone are adequate to support
7 restart of Unit 2. You have listed a variety of challenges
8 here and what we have to look at, ultimately, the Commission
9 is going to make the decision and our decision isn't
10 necessarily a laser decision as to are they able to operate
11 Unit 2. It is a question of given all of the other
12 challenges here, given the fact that we have an upcoming
13 outage coming up, all the challenges associated with that,
14 given those, can you articulate your full confidence that
15 they are going to be able to that given all of these
16 challenges?

17 MR. MILLER: Being an inspector, I never like to
18 look forward but my sense is that if they do the things that
19 they have done, make the kinds of adjustments and priorities
20 as they made after they encountered some of the problems
21 coming up on Unit 3, after they made the adjustments as they
22 encountered some personnel errors as they came up on Unit 2,
23 provided they continue that kind of conservative
24 decision-making, that as they encounter difficulties that
25 they slow it down and they make correct decisions and that

1 way they should be able to manage this, but at this point
2 the point of this slide is to just tell you that we need to
3 continue to monitor them closely, and to suggest or to say
4 that we know that they can't do it.

5 It's just that, you know, there is a lot of talk
6 here today about the good news, the things that the company,
7 the progress the company has made and they certainly had to
8 make it sufficient enough to get confidence to start the

9 unit up. It's just that I think it's wrong to then believe
10 that with all of the discussion of the positive things to
11 somehow get the view that this is going to be an easy thing
12 going forward. It won't be and I think we just have to
13 judge, make our judgments about how much is enough oversight
14 in light of that.

15 COMMISSIONER MERRIFIELD: Well, it is easy
16 sometimes for us to get into the NRC-speak, and just so it
17 is clear for the public, we are not simply taking a snapshot
18 of this. I mean this is a compendium. We are going to
19 continue to look at the activities going on with this
20 licensee to determine whether we have continued confidence
21 in what they are doing, so it is not as if, even if this
22 Commission were to decide, yes, we agree with the Staff and
23 we have confidence that this unit can restart, we are going
24 to be continuing to very closely monitor what is going on
25 with this licensee.

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1 MR. TRAVERS: And this is meant to give you a
2 sense of those areas that we --

3 COMMISSIONER MERRIFIELD: -- will continue to look
4 at.

5 MR. TRAVERS: -- will monitor and focus on.

6 MR. MILLER: We will be assessing the plant of
7 course in the next, in the Senior Management Meeting and all
8 of the other things that go along with that.

9 Well, I think this slide kind of speaks for
10 itself. It kind of comes back to the Chairman's, probably
11 her first question to me, and that is where do we stand in
12 terms of the employee concerns program and monitoring it.

13 We are developing the plan and we will be
14 providing our plan and a specific plan at the end of May.

15 At this point this ends my presentation, and I'll
16 turn it back over to Bill.

17 MR. TRAVERS: As I indicated at the beginning of
18 our presentation, our summary and recommendation to the
19 Commission as presented in the SECY paper is that we in fact
20 have been carrying out an oversight program for a little
21 over three years now that has focused on the corrective
22 actions being made by Millstone Unit 2, and we recommend
23 that in connection with the ICAVP that they have met the
24 conditions of the order and we are recommending that the
25 Commission with our conclusion that that order has been in

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1 fact satisfied.

2 Secondly, we believe that the corrective actions
3 and the programs they have implemented during their three
4 year shutdown period are viewed as ones that support the
5 safe restart and operation of Millstone Unit 2, and lastly
6 we provided a recommendation to the Commission that the
7 Commission authorize restart of Millstone Unit 2, and a
8 propos to Commissioner Merrifield's question, the way the
9 Commission considered this in connection with Millstone Unit
10 3, if there is consideration in the same fashion, Millstone
11 Unit 2 would remain in connection with today's program a
12 Watch List Category 2 program and would in fact continue to
13 receive additional scrutiny by the NRC Staff in connection
14 with the kinds of activities including startup and continued
15 operation as they ascend to power, so even if the Commission
16 approved restart, my point simply is that they would remain
17 in a category of our assessment that would be enhanced over

18 and above that normally associated with plants that are
19 operating well.
20 CHAIRMAN JACKSON: These are the final questions
21 and comments. I am going to start in the inverse order,
22 with Commissioner Merrifield. Thank you.
23 COMMISSIONER MERRIFIELD: I have a question and
24 then I have a couple of comments.
25 The question is this. You talked about some of

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1 the recommendations. I wondered if you have given any
2 thought -- obviously there is a great deal of stakeholder
3 interest in regards to this facility, both in terms of the
4 individuals who live in the Waterford area, within the
5 10-mile EPZ, as well as citizens who live outside of the
6 10-mile EPZ on Long Island and elsewhere, and so, you know,
7 as a personal opinion, I think we need to keep vigilant in
8 terms of maintaining that public confidence and keeping them
9 informed.

10 I didn't know whether you had any thoughts in
11 terms of what activities you might be wanting to undertake
12 in that regard as we along, or perhaps you don't. I don't
13 know.

14 MR. MILLER: We have had the periodic meetings
15 that I talked about every six to eight weeks in the
16 Connecticut area. Sam and some of the folks from NRR had a
17 recent meeting in New York, is that right? --

18 MR. TRAVERS: And Dr. Sheron.

19 MR. MILLER: And Dr. Sheron to hear issues of the
20 citizens or of the people in New York regarding the
21 emergency planning issue, and so I mean we have done, we
22 have tried to keep a continuing dialogue going with the
23 public, and specific issues have arisen like the emergency
24 planning issue and we have had specific meetings on that.

25 I expect that we'll continue at some level to do

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1 this.

2 MR. TRAVERS: But I do think we were looking at
3 transitioning into a more nominal state of affairs. We have
4 been carrying out a fairly extraordinary program with regard
5 to our efforts at Millstone, and deservedly so. We think it
6 has been the right thing to do.

7 We think though that there will probably be a
8 lessening of that kind of activity balanced against, as you
9 have indicated, the need to continue to involve public
10 stakeholders.

11 We need to work on just what that will be but I
12 anticipate it will be more nominal.

13 COMMISSIONER MERRIFIELD: Well, I think it is
14 important that we continue to have some presence there and I
15 look forward to reviewing the recommendations that you and
16 your staff will make in that regard.

17 A couple of comments that I want to make to finish
18 things out. Having been a Commissioner for only six months
19 but having been involved in public service for going on 14
20 years now I understand that one has to have a relatively
21 thick skin about things, and having been accused of having
22 no brain, no heart, and no soul, I certainly would want to
23 assure the public that I don't think this Commission is, you
24 know, I don't think we are in the cast of the Wizard of Oz
25 here and I indeed do feel I have those particular parts of

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1 my body and soul.

2 I would also say that given the probably less than
3 \$20 in my wallet, I would say that I don't feel like I have
4 been bought by the nuclear industry.

5 In terms of the comments about Long Island, I know
6 that there were a number of people who came down today to
7 participate in this meeting. We did have one witness who
8 testified on behalf of a Long Island based group. I want to
9 just make it clear for the public record we at the request
10 of Congressman Forbes did hold a public meeting on March
11 1st, 1999 that was chaired by Tom Madden of our Office of
12 Congressional Affairs.

13 One of the concerns that was raised in that
14 meeting was that the information and the transcript from
15 that meeting be presented to the Commission. In fact, that
16 indeed was the case -- the 136 pages plus the attachments
17 were presented to the Commission. I can't speak for the
18 other Commissioners. I did indeed read each and every one
19 of the words presented in that transcript and the material,
20 so at least as far as my consideration of how we move
21 forward in this plant and how we treat it, I certainly do
22 have those thoughts of those Long Islanders as well.

23 Finally, I think Sam and Bill brought up the issue
24 of having public comments as it relates to the new oversight
25 process. I think that is an entertaining thought that

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1 certainly I would consider and I think perhaps we as a
2 Commission ought to think about not only specifically in
3 regards to the residents around Millstone but there may be
4 some reason to have a few -- however one terms that -- a few
5 public meetings around the country at different plants
6 perhaps to test that with the public as well.

7 I think there may be some merit to that, and I
8 will leave that as my final comment.

9 CHAIRMAN JACKSON: Commissioner Diaz.

10 COMMISSIONER DIAZ: I want to thank the staff for
11 presenting for a long time a series of reviews of these
12 plants that I believe are thorough and I believe present
13 significant evidence as to the evolutions and the oversight
14 that has been exerted over the Millstone units which I
15 believe it is an extraordinary oversight.

16 As you know, and I have publicly stated before, I
17 believe that eventually licensees have to stand on their own
18 feet, that they cannot be propped up by external
19 organizations or by continued intense oversight, that they
20 must be able to maintain an effective and safe operation
21 program without extraordinary measures. And I don't believe
22 that this country or anybody can afford to continue propping
23 up or supporting or continue activities that are way beyond
24 what they should be.

25 Therefore, my position is that Millstone should

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1 eventually stand on its own two feet without extraordinary
2 oversight, and then if they're not capable of doing that,
3 then the Commission will have to review why they're not
4 capable of doing that.

5 Having said that, I continue to be concerned with
6 how we interact with the public, and I know especially you,
7 Dr. Travers, have made extraordinary efforts and you, Mr.
8 Miller, to interact with the public and to present how
9 careful this Commission and this Agency and the staff

10 consider the different issues. Still, there's obviously a
11 gap, and this gap might always exist, but I just want to
12 make sure that we continue to be cognizant that these
13 discrepancies exist in how people see what we do and how we
14 see what we do, and that's the real thing. It is not to,
15 you know, it is a real difference.

16 When somebody can come to this room and say, and I
17 quote, an accident is imminent, and we have the technical
18 information that says there have been no accidents in
19 Millstone, there's only been one major accident in this
20 country which you, Dr. Travers, happened to deal with in
21 Three Mile Island -- we had no real, you know, impact on
22 health and safety -- and we continue to have this, it seems
23 to me there is an obligation for this Agency to continue to
24 look at this gap and continue to work on it, continue to
25 improve, you know, how we communicate with the public. And

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1 that is an obligation that I consider it not independent of
2 what we do with public health and safety but attached to it.

3 CHAIRMAN JACKSON: Commissioner Dicus?

4 COMMISSIONER DICUS: No further, thank you.

5 CHAIRMAN JACKSON: I would like to thank Northeast
6 Nuclear Energy Company, Parsons Power Grouping, the Nuclear
7 Energy Advisory Council, First Selectman Thomas Sheridan,
8 the Millstone Ad-Hoc Employee Group, Standing for the Truth
9 About Radiation, the Citizens Advisory Commission, Fish
10 Unlimited, Friends of a Safe Millstone, and the NRC staff
11 for a candid and informative briefing on the readiness of
12 Millstone Unit 2 for restart.

13 As I stated in my opening remarks, the Commission
14 will consider the information presented to us by all parties
15 today along with written information that we've received on
16 the docket including that from Mr. Mastrianna, in deciding
17 whether to lift the Independent Corrective Action
18 Verification Program order and in deciding whether the items
19 associated with the restart action plan have been completed
20 satisfactorily.

21 The decision of the Commission will be based on
22 whether sufficient corrective actions in its judgment have
23 been undertaken and that the results achieved demonstrate
24 that issues that led to the shutdown of the Millstone
25 facility have been alleviated, and the decision also will be

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1 based on whether Unit 2 is in the Commission's judgment in
2 compliance with existing NRC rules and regulations. And I
3 remind you about the fact that we need to have some specific
4 feedback to the Commission on the issue of the 50-mile
5 ingestion pathway exercise that includes Long Island and
6 when it will occur, and that we have closed the loop with
7 the emergency management agency.

8 I just want to say that I do have the advantage
9 or, if you want to call it that, the disadvantage of having
10 been in this from the beginning, since it really surfaced as
11 a serious issue, and therefore I probably take a harder view
12 than most people relative to the remaining -- the continued
13 need for remaining vigilance, and just would like to point
14 out that all of the continuing vulnerabilities that you
15 identified are the same ones which got out of hand and led
16 us into this morass which I think we've been working our way
17 out of very systematically due to the hard work of a number
18 of people including all of you sitting at this table. But
19 because of that then we should all be chastened in terms of

20 how easy it is to fall off the planet, as it were, and that
21 we should not take any of these things for granted.

22 One could argue that the ultimate metric of the
23 efficacy of the new reactor oversight program is in fact
24 whether or not we come away from the pilots understanding
25 whether that program would keep us from falling into this

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1 kind of black hole in the future. And I always believe
2 that, having heard from a number of individuals who
3 expressed themselves quite strongly today in terms of their
4 perceptions of the Commission, I think if we all just
5 remember to keep the public in public health and safety,
6 we'll all be further ahead. And with that I would like to
7 thank you and adjourn a very long meeting.

8 [Whereupon, at 4:38 p.m., the briefing was
9 concluded.]

LIST OF DOCUMENTS SUBMITTED FOR THE RECORD AT THE 4/14/99 "BRIEFING ON REMAINING ISSUES RELATED TO PROPOSED RESTART OF MILLSTONE UNIT 2"

The following items are available in the Public Document Room and in the Office of the Secretary Commission Records:

1. Written Statement of J.W. "Bill" Sheehan, Member, State of Connecticut Nuclear Energy Advisory Council (NEAC) (with attachments)
2. Millstone Employee Signatures in Support of the Restart of Unit 2
3. 2.206 Petition dated April 14, 1999 (to Secretary and the Executive Director for Operations) with attachments (press articles) submitted by Tina Guglielmo, Standing for Truth About Radiation (being handled within the 2.206 Petition Process)
4. Signatures of registered voters demanding that the Millstone Nuclear Reactors in Waterford, Connecticut be closed submitted by Tina Guglielmo, Standing for Truth About Radiation with press articles
5. Petition to Stop Millstone Unit 2 Restart and Permanently Closed Millstone Nuclear Power Station submitted by Joe Basade
6. Ltr dated April 13, 1999 to Chairman Shirley Ann Jackson from Sue B. Avedon, South Fork Groundwater Task Force concerning the reopening of Millstone Unit II
7. Ltr dated April 14, 1999 to Chairman Shirley Ann Jackson from Joseph Besade, President, Waterford, CT Chapter, Fish Unlimited concerning restart for Millstone Unit 2 (with attached report from Donald DeCore, Sr.)
8. Ltr to Commissioners from Valerie Justin, Issue Manager for Millstone, Coalition of Neighborhoods for the Preservation of Sag Harbor concerning safety of Millstone reactors (with attachment from the Sag Harbor Express)
9. Statement for the Record for April 14, 1999 NRC Meeting Held at Rockville, Maryland on Millstone Unit II from Thomas Mastrianna with the following attachments:
 1. Affidavit dated September 15, 1998 of Thomas Mastrianna concerning Millstone
 2. Ltr dated March 19, 1999 to Thomas Mastrianna from David J. Vito, NRC, Region I regarding Millstone and Haddam Neck concerns
 3. Ltr dated April 2, 1999 to T. P. Necci, Northeast Nuclear Energy Company from James C. Linville, NRC, Region I concerning NRC Combined Inspection Report Nos. 50-245/99-02, 50-336/99-02, 50-423/99-02, and Confirmatory Action Letter 1-97-010 Closeout
 4. Ltr dated April 13, 1999 to Thomas Mastrianna from David J. Vito, NRC, Region I regarding Millstone and Haddam Neck concerns
 5. Condition Report Form (AR No. 98-018522) dated 10/9/98 concerning MP2 fire penetration seals
 6. Condition Report Form (AR No. 98-018522) dated 10/9/98 concerning MP2 fire penetration seals
 7. Condition Report Action Closeout (AR No. 98015288-13) dated 12/8/98 concerning MP2 fire penetration seals (with attachments)
 8. Condition Report Form (AR No. 98018516) dated 10/9/98 concerning MP2 fire penetration seals
 9. Condition Report Form (AR No. 98018517) dated 10/9/98 concerning MP2 fire penetration seals
 10. Condition Report Form (AR No. 98018518) dated 10/9/98 concerning MP2 fire penetration seals
 11. Condition Report Form (AR No. 98018519) dated 10/9/98 concerning MP2 fire penetration seals
 12. Condition Report Form (AR No. 98018520) dated 10/9/98 concerning MP2 fire penetration seals
 13. Condition Report Form (AR No. 98018521) dated 10/9/98 concerning MP2 fire penetration seals
 14. Condition Report Form (AR No. 98018523) dated 10/9/98 concerning MP2 fire penetration seals
 15. Condition Report Form (AR No. 98018700) dated 10/13/98 concerning fire penetration seals
 16. Condition Report Form (AR No. 98018909) dated 10/19/98 concerning potential problem areas to site fire protection
 17. Condition Report Form (AR No. 98015288) dated 8/12/98 concerning multiple failures in fire penetration seals
 18. Condition Report Form (AR No. 98011188) dated 6/5/98 concerning the Post Accident Sampling System, fire seal protection, and the control room ceiling
 19. Condition Report Form (AR No. 98-18516) dated 10/9/98 concerning MP2 fire penetration seals
 20. Condition Report Form (AR No. 98018517) dated 10/9/98 concerning MP2 fire penetration seals

21. Condition Report Form (AR No. 98018518) dated 10/9/98 concerning MP2 fire penetration seals
 22. Condition Report Form (AR No. 98018519) dated 10/9/98 concerning MP2 fire penetration seals
 23. Condition Report Form (AR No. 98018520) dated 10/9/98 concerning MP2 fire penetration seals
 24. Condition Report Form (AR No. 98018521) dated 10/9/98 concerning MP2 fire penetration seals
 25. Condition Report Form (AR No. 98018523) dated 10/9/98 concerning MP2 fire penetration seals
 26. Condition Report Form (AR No. 98018700) dated 10/13/98 concerning fire penetration seals
 27. Condition Report Form (AR No. 98018909) dated 10/19/98 concerning potential problem areas to site fire protection
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10. Videotape of Susan Perry-Luxton, Citizens Regulatory Commission and Thomas J. Mastrianna given to the Commission for Review by Joseph Basade, Fish Unlimited at Millstone Meeting 4/14/99 (available in the Office of the Secretary Commission Records only)