

ORIGINAL

OFFICIAL TRANSCRIPT OF PROCEEDINGS

UNITED STATES OF AMERICA

NUCLEAR REGULATORY COMMISSION

Title: **MILLSTONE, UNIT 1**

DECOMMISSIONING PUBLIC

MEETING

Case No:

Work Order No.: ASB-300-651

LOCATION: **Waterford, CT**

DATE: **Tuesday, February 9, 1999**

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BEFORE THE
U.S. NUCLEAR REGULATORY COMMISSION

MILLSTONE UNIT 1, DECOMMISSIONING PUBLIC MEETING

Waterford Town Hall
15 Ropes Ferry Road
Waterford, CT

Tuesday, February 9, 1999

The above-entitled meeting commenced, pursuant to
notice, at 7:00 p.m.

PARTICIPANTS:

On Behalf of the Town of Waterford:

TONY SHERIDAN, First Selectman, Town of Waterford

On Behalf of the NRC Staff:

DUKE WHEELER, NRC Licensing Project Manager for
Millstone Unit 1, Decommissioning Project
Directorate

DR. MICHAEL MASNIK, Chief, NRC Decommissioning
Section

PHIL RAY, Project Manager for Millstone Unit 1,
Decommissioning Project Directorate

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PARTICIPANTS: [Continued]

ETOY HYLTON, Licensing Assistant

PATRICIA MILLIGAN, Health Physicist and Nuclear
Pharmacist

BILL HUFFMAN, Staff, Decommissioning Licensing
Project Management

STEVEN DEMBEK, previous Licensing Project Manager,
Millstone Unit 1

SAM NALLUSWAMI, Decommissioning Project
Directorate/NRC

DR. RON BELLAMY, Chief of the Decommissioning and
Laboratory Branch, NRC Region I

PAUL CATALDO, Resident Inspection staff, Millstone

NEIL SHEEHAN, Public Affairs Office, Region I

ANN HODGDON, Esquire, Office of the General
Counsel

JIM SHEPHERD, Millstone 1 Project Manager

On Behalf of Northeast Utilities and Millstone Station:

FRANK ROTHEN, Vice President of Site Services,
Millstone Station

ERNIE HARKNESS, Unit Director for Operations, Millstone
Unit 1

RON SACHATELLO, Project Manager of Site Characterization,
Millstone Unit 1

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1 PARTICIPANTS: [Continued]

2 SPEAKERS:

3 SAL MANGIAGLI

4 JEN GUTSHALL

5 PETE REYNOLDS

6 PHALIS BUILDMORE

7 JOE BESADE

8 JOE AMARELLO

9 GERALYN WINSLOW

10 MARK HOLLOWAY

11 EVAN WOOLCOTT

12 PAUL BLANCH

13 MARY KUHAN

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P R O C E E D I N G S

[7:00 p.m.]

MR. SHERIDAN: Good evening, everyone. First of all, I would like to ask everyone if they could be seated so we can get started.

First of all, I would like to thank all of you for coming. I am Tony Sheridan, the First Selectman of Waterford, and these other folks at the table, at the various tables here, will be introduced as we progress.

I would like to start by trying to establish some groundrules. This is really a new era for the town of Waterford. Up until now we were talking about over the years construction and management of plants. Now we are talking about decommissioning Unit 1, so there's a little bit of a learning curve we are all going to go through here.

We -- I say "we" -- the town of Waterford through our representative, and I think he is here somewhere in the audience, I thought I saw him -- George Peteros -- where are you, George? There you are.

George has been representing the town of Waterford on the Citizen Advisory Committee at the Haddam Neck plant, so we are all trying to educate ourselves.

I want to thank the NRC people for coming tonight to start this public process, and also the NU people for being here to outline what they and how they hope to go

1 about decommissioning Unit 1.

2 In an effort to be fair with everyone, I think it
3 is important that we try to first and foremost respect
4 everyone's opinion. Everybody has an opinion and it is a
5 public meeting and we would appreciate that bit of common
6 courtesy.

7 The second thing I would like to suggest is that
8 we restrain our remarks to about three minutes each first
9 time around. These people have agreed to be here up until
10 10 o'clock and if the meeting ends earlier than that they
11 will also hang around and have individual questions asked of
12 them, so if we could agree to that, we'll try to be fair
13 with everybody, give everyone a fair opportunity to be heard
14 and also I am told this is the first of a number of meetings
15 we will have.

16 So tonight is really the beginning and with that I
17 would like to remind everybody that there is a sign-up sheet
18 at the back of the room. If you want to speak, please sign
19 up and when you come forward to speak, I would appreciate it
20 if you would for the record identify yourself, so that we
21 know who you are and that if there is a follow-up question
22 to be answered that we know where to send it and who to
23 address it to.

24 There is a second sheet in the back of the room
25 for individuals who may want a transcript -- I believe that

1 is what you want to have happen -- a transcript sent to them
2 of the meeting. I think that is important for the record
3 and if you know of somebody who would like to know what is
4 going on with these meetings, please put their name and
5 address on the second sign-up sheet and we will see that --
6 NRC will see that the transcript of the meeting is forwarded
7 to that individual.

8 Okay. We have an agenda. What I would like to do
9 at this time is to introduce Duke Wheeler, who is the lead
10 person -- he is the License Project Manager for
11 Decommissioning of Unit 1 and ask if Duke then would
12 introduce the NRC folks who are here to help answer any
13 questions.

14 I know there's been a lot of interest in all of
15 the units out there and I want to really establish this rule
16 for this evening. These people are not here to answer
17 questions about 2 or 3. They don't have the right technical
18 staff with them, so we want to try to limit our comments and
19 questions to the decommissioning process of Unit 1.

20 So
21 ^ With that, Duke, if you could start I would
22 appreciate it.

22 MR. WHEELER: Thank you, Tony.

23 Good evening and thank you for taking time to come
24 to this meeting with the NRC Staff to participate in our
25 regulatory program for the decommissioning of Millstone Unit

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1 1. As Tony mentioned, I am Duke Wheeler and I am the
2 Licensing Project Manager for Millstone Unit 1 in our
3 Decommissioning Project Directorate.

4 We transferred Unit 1 from our Special Projects
5 Office to the Decommissioning Project Directorate shortly
6 after we received certification from the licensee that Unit
7 1 had permanently ceased operations and that the fuel had
8 been permanently removed from the reactor vessel, so please
9 note that the licensing actions for the decommissioning of
10 Millstone Unit 1 are being supervised by a different part of
11 the NRC Staff organization than licensing actions for Units
12 2 and 3.

13 We understand that substantial interest and
14 attention may also exist for Unit 2 and 3, but those plants,
15 as Tony mentioned, are beyond the scope of this evening's
16 meeting and we don't have a full complement of NRC Staff
17 present tonight to address interests related to our
18 oversight of Units 2 and 3.

19 Before going any further, I would like to
20 introduce the rest of the NRC Staff who is here this
21 evening.

22 Dr. Seymour Weiss was going to be here but he was
23 unable to make it. He is the Director of the Non-Power
24 Reactors and Decommissioning Project Directorate.

25 Dr. Michael Masnik, to my right, is the Chief of

1 the Decommissioning Section under Dr. Weiss, and he is my
2 immediate supervisor. He supervises 14 Project Managers
3 such as myself who are involved in various aspects of the
4 decommissioning program which at the present time includes
5 decommissioning related activities at 18 nuclear power
6 plants across the country.

7 One of those 14 professionals supervised by Dr.
8 Masnik is Mr. Phil Ray, who is also working the slide
9 projector, and he is the backup Project Manager in our
10 Decommissioning Project Directorate for Millstone Unit 1.

11 Also with us tonight is Ms. Etoy Hylton. She is
12 our Licensing Assistant and is at the back of the room when
13 you first came in to assist you with getting your names on
14 the sign-up lists if you have that interest.

15 Ms. Patricia Milligan is with us tonight. She is a
16 health physicist certified by the American Board of Health
17 Physics and she is also a board-certified nuclear
18 pharmacist.

19 Mr. Bill Huffman is one of our more recent
20 additions to the Decommissioning Licensing Project
21 Management staff, and he also works for Dr. Masnik.

22 Mr. Steven Dembek is the previous Licensing
23 Project Manager for Unit 1.

24 We also have with us Mr. Sam Nalluswami, who is on
25 a rotational assignment to our Decommissioning Project

1 Directorate from our Office of Nuclear Materials Safety and
2 Safeguards.

3 Also with us, to my immediate right, is Dr. Ron
4 Bellamy. He is the Chief of the Decommissioning and
5 Laboratory Branch in our Region I office and will follow my
6 presentation of the Licensing Program with a brief
7 discussion of our inspection program for decommissioning
8 power reactors.

9 Mr. Paul Cataldo is with us, and he is
10 representing our Resident Inspection staff here at the site.

11 Mr. Neil Sheehan is here from our Region I Public
12 Affairs Office and Ms. Ann Hodgdon is here and she is an
13 attorney specializing in decommissioning activities in our
14 Office of the General Counsel.

15 From our Office of Nuclear Materials, Safety and
16 Safeguards we also have Mr. Jim Shepherd and he is the
17 Millstone 1 Project Manager in that office.

18 What I would like to do this evening is give you a
19 brief outline of my presentation for this evening. Topics ^{that} I
20 will address are, first of all, a quick comment on just what
21 decommissioning really is and then also a few comments on
22 those things that are not considered to be decommissioning
23 from our perspective.

24 I will comment on what the NRC's focus is during
25 the decommissioning process and I will identify some

1 alternatives that are available to the licensee during the
2 process. I'll talk about what some of the decommissioning
3 process requirements are. I will talk about what the
4 post-shutdown decommissioning activities report is and I
5 will also describe some additional restrictions that we
6 place on the licensee.

7 I will comment on some of the financial aspects of
8 the NRC's decommissioning regulations.

9 Another important document that I will touch on is
10 the License Termination Plan.

11 Next I will talk a little bit about
12 decommissioning experiences elsewhere. We recognize that
13 this is new to the Waterford community but it is not new to
14 many other communities across the country.

15 I will also give you some information on how to
16 contact me at NRC Headquarters as your point of contact for
17 interests that you might have related to our licensing
18 program for decommissioning power reactors and how it is
19 being applied to Unit 1.

20 The NRC presentation this evening will be
21 concluded by Dr. Bellamy giving a description of the NRC's
22 inspection program for decommissioning plants.

23 First of all, what is decommissioning?
24 Decommissioning is the removal of ^a ~~the~~ power plant safely
25 from service and a reduction of the residual radioactive

1 materials at the site to permit release of the property and
2 termination of the license.

3 Some things that are not decommissioning -- this
4 is very important. Decommissioning does not encompass from
5 the NRC's regulatory perspective any non-radiological
6 decommissioning. If you have a facility that has been
7 cleaned of its radioactive contamination and is acceptable
8 for release if the licensee chooses to further clean up or
9 dismantle the facility the costs incurred by such activities
10 are not regulatory decommissioning costs.

11 Site restoration activities -- if ^{as} ~~the~~ licensee
12 chooses to restore the site to its original character prior
13 to the building of the power plant those costs too are not
14 considered regulatory decommissioning costs.

15 Lastly, spent fuel management and funding -- we
16 have observed that licensees of decommissioning plants
17 across the country spend a significant portion of time and
18 money dealing with safely managing and eventually disposing
19 of the spent fuel. We expect the same will apply here at
20 Millstone. Those costs associated with the care and
21 management of the spent fuel are not regulatory
22 decommissioning costs.

23 Now what is the NRC Staff's focus during the
24 decommissioning of a power reactor? Quite simply, the NRC's
25 primary focus is on the removal of radiological hazards.

1 The first step in that process is to safely remove the
2 facility from service and then the licensee reduces
3 radioactive contamination to levels that will allow release
4 of the site.

5 The licensee will then perform a detailed final
6 radiological survey and the NRC Staff may perform a
7 confirmatory survey to strengthen our assurance that the
8 site meets the specified criteria for release.

9 Finally, if the release criteria are met and the
10 terms and conditions of the License Termination Plan are met
11 and any hearing conditions that may occur are met, then the
12 license may be terminated and at this point NRC regulatory
13 activities would end.

14 With respect to decommissioning alternatives, the
15 licensee basically has three choices. One choice is to
16 begin decontaminating and dismantling the plant soon after
17 certifying to us that plant operations have been permanently
18 ceased and the fuel permanently removed from the reactor
19 vessel.

20 A second choice is to place the plant in what we
21 call SAFSTOR where decontamination and dismantling
22 activities are deferred to some later date. Licensees can
23 choose to take up to 60 years to terminate the license. For
24 example, they could put the plant in long-term storage for
25 50 years, then take five to 10 years to complete the

1 dismantlement and decontamination as long as they complete
2 the process in 60 years.

3 The third choice that they can adopt is a
4 combination of the first two choices.

5 An important point here is that the NRC has found
6 either of these alternatives or a combination of these
7 alternatives to be acceptable. The risk to the public from
8 decommissioning is significantly reduced from when the
9 facility was in operation. In recognition of that reduced
10 risk our regulatory requirements may be reduced during
11 decommissioning of the facility.

12 Now what is involved in the process? The first
13 thing we expect to see is the certifications from the
14 licensee that they have permanently ceased operations and
15 the fuel has been permanently removed from the reactor
16 vessel. We received these certifications in a letter to the
17 Commission dated July the 21st, 1998.

18 Once these certifications have been submitted the
19 licensee cannot change their mind and go back and operate
20 the plant again. These certifications are a significant
21 step and they are an irreversible action, and as I noted for
22 Millstone Unit 1, they have occurred.

23 Next, we require the licensee to submit a Post
24 Shutdown Decommissioning Activities Report within two years
25 of those certifications being docketed. We also require

1 that a site-specific decommissioning cost estimate be
2 submitted within the same timeframe.

3 The PSDAR is required to provide a description of
4 the planned decommissioning activities and we also expect to
5 see a schedule for the accomplishment of those activities.
6 ^{will}
We [^]require that the PSDAR include an estimate of the
7 expected costs associated with decommissioning and we also
8 require the licensee to provide the reasons for which they
9 have concluded that the environmental impact associated with
10 decommissioning is within the existing bounds of the
11 Environmental Impact Statements associated with the
12 licensing of the facility or our rulemakings regarding
13 decommissioning.

14 Within about two months of receiving the PSDAR, we
15 will hold another public meeting very similar to this one in
16 the vicinity of the site. For Millstone 1 the licensee has
17 not submitted a PSDAR yet, so this meeting tonight is not
18 the PSDAR meeting, so we will get a chance to have another
19 meeting like this after the PSDAR is received by us.

20 Also, the NRC Staff does not approve the
21 licensee's PSDAR. Instead, we make a determination as to
22 whether or not the licensee has submitted the information
23 required by our regulations. The PSDAR accomplishes several
24 things. It informs the public of the licensee's plans for
25 decommissioning. It also aids us in planning our inspection

1 activities. It forces the licensee to re-examine their
2 financial resources available for decommissioning and it
3 requires the licensee to evaluate the environmental impacts,
4 as I mentioned a few minutes ago.

5 One comment -- the PSDARs ~~that~~^{that'} we have received in
6 the past have been relatively small documents, typically 15
7 to 20 pages and this is acceptable for our purposes as long
8 as they include the information required by our regulations.

9 Ninety days after the licensee submits their PSDAR
10 they can begin to actively dismantle the facility if they
11 have chosen the Decon alternative or if they selected the
12 SAFSTOR option they can continue to keep the facility in a
13 safe, stable configuration.

14 Now what are some of the financial aspects of our
15 decommissioning regulations? We understand that State
16 Public Utilities Commissions have certain regulatory
17 authority over decommissioning trusts. We have regulations
18 related to the licensee having access to those funds. From
19 our regulatory perspective we allow staged access to those
20 funds. At any time prior to and during decommissioning the
21 licensee would have access to up to 3 percent of the amount
22 of decommissioning trust funds for decommissioning planning
23 purposes. This is for planning, for getting ready for
24 decommissioning. It is not for actual decontamination,
25 demonstration projects, or the like.

1 Licensees are also permitted access to an
2 additional 20 percent of the decommissioning trusts ~~once~~ we
3 have received the Post Shutdown Decommissioning Activities
4 Report.

5 Once we have received the site-specific
6 decommissioning cost estimate, then they have full access to
7 the decommissioning trust fund from our perspective. Our
8 regulations are in addition to and do not take the place of
9 Public Utilities Commission controls. Licensees must comply
10 with both sets of regulations.

11 There are some additional restrictions placed on
12 licensees once they begin the decommissioning process.
13 Licensees are prohibited from performing any decommissioning
14 activity that would foreclose the release of the site for
15 possible unrestricted use. They are also prohibited from
16 performing any activity that would result in a significant
17 environmental impact that has not been previously considered
18 or evaluated. Likewise, they are also prohibited from
19 performing an activity that results in or no longer provides
20 reasonable assurance that adequate funds will be available
21 to complete the decommissioning.

22 When a licensee approaches the end of the
23 decommissioning program, within two years of the time they
24 expect the license to be terminated we expect to receive a
25 License Termination Plan. In this plan we expect to see,

1 among other things, a detailed site characterization. We
2 also expect to see an identification of any remaining
3 dismantlement activities. We expect to see plans for site
4 remediation, detailed plans for the final radiation survey
5 and a description of the end use of the site if the licensee
6 intends that the site be released under restricted
7 conditions.

8 We expect to see an updated site-specific cost
9 estimate regarding the residual costs for finishing the
10 decommissioning of the facility and the site and we would
11 also expect to see a supplement to the environmental report
12 describing any new information or significant changes
13 associated with the licensee's termination activities.

14 When we receive the License Termination Plan, we
15 will notice receipt of it in the Federal Register and it
16 will be made available for public comment. Likewise, since
17 we approve this plan by a license amendment, there will also
18 be an opportunity for a public hearing and the NRC will once
19 again hold a public meeting similar to this one in the
20 vicinity of the site.

21 Once the licensee completes their site radiation
22 survey or concurrently with that survey the NRC Staff may
23 perform an independent confirmatory survey. The license
24 will then be terminated, as I indicated earlier, once we are
25 satisfied that the site has met the applicable release

1 criteria, any conditions or terms that are imposed by the
2 License Termination Plan, and any conditions resulting from
3 our hearing process.

4 Now this concludes my overview of the licensing
5 aspects of our regulatory process for decommissioning power
6 reactors. Although the decommissioning of a nuclear power
7 plant is new to the Millstone and Waterford community, you
8 do share this experience with other communities around the
9 country. Currently there are 21 reactors that have started
10 the decommissioning process. Three of these facilities have
11 actually completed the process.

12 There are 18 other reactors now including
13 Millstone 1 in decommissioning. Five of them are currently
14 being dismantled. There are 12 facilities that are
15 currently in SAFSTOR and we have not yet been informed yet
16 of the decommissioning option that the licensee will select
17 for Millstone Unit 1, so as you can see, the NRC Staff has a
18 lot of experience in the decommissioning of nuclear power
19 plants.

20 Lastly, I would like to leave you with my name as
21 a point of contact for questions related to the NRC
22 licensing program for the decommissioning of nuclear power
23 plants. Please feel free to contact me at NRC Headquarters.

24 At this time I would like to turn the microphone
25 over to Dr. Bellamy, who will discuss the program he

1 supervises for our inspections at decommissioning power
2 reactors. Thank you for your attention.

3 MR. BELLAMY: What we have done in Region I is
4 basically to recognize that the decommissioning projects
5 that are being undertaken in Region I are a significant part
6 of our work activity and have created a specific branch that
7 solely looks at the decommissioning projects in Region I and
8 that is the branch that I presently manage. In addition to
9 the decommissioning projects, I also have under me the
10 responsibility for the Region I radiological laboratory that
11 is in our office in King of Prussia and also the independent
12 measurements mobile radiological van which is still
13 operational I have at my disposal if I decide that it needs
14 to be brought here or any other site in the region for
15 independent measurements of the licensee radiological
16 samples.

17 The distinction between a station with operating
18 and permanently shutdown reactors is significant when it
19 comes to how the region will perform its inspection
20 activities. Here at the Millstone station because of Units
21 2 and 3 we have a significant pool of resources that we will
22 use as the decommissioning is undergone to help us with the
23 inspection activity.

24 I will be in continuous contact with them, my
25 staff will be in contact with them, and we will be able to

1 determine what the appropriate mix is of both resident and
2 regional specialists that will be able to come out here and
3 perform the required inspection activities, and a little
4 later I will get into what those inspection activities are.

5 The present resident effort is periodic tours.
6 They are doing that a little more frequently than monthly
7 now, but I think that is what we will start with to ensure
8 that there is no degradation of the facility, they are
9 attending the planning meetings that are being undertaken at
10 the site, and they are keeping both the Regional office and
11 the Headquarters Staff aware of developments, and again that
12 is a significant resource that we have a great luxury here
13 at the site to use.

14 Duke indicated that there has been a significant
15 experience of decommissioning within the NRC and most of
16 that has been in Region I if you go back and take a look at
17 it.

18 Yankee Rowe is now completing its dismantlement
19 and decontamination activities.

20 Maine Yankee has completed site characterization.
21 They have selected a contractor as a decommissioning
22 operations contractor to come in and run that facility for
23 them. A spent nuclear fuel island has been established.
24 They have put the plant is what is called an official cold
25 and dark status as of December 30, 1998, and they believe

1 the major dismantlement and decommissioning efforts will
2 begin in the spring of 1999. At that time there will be a
3 significant influx of radiation specialists from the
4 Regional office to ensure that the activities are undergone
5 in a safe and competent manner.

6 Haddam Neck is continuing its characterization
7 effort and they are now completing their modifications for a
8 similar spent fuel nuclear island. Their major
9 dismantlement and decontamination efforts are expected to
10 begin in about mid-1999. They have not selected a
11 decommissioning operations contractor as of this date.

12 Peach Bottom 1, TMI-2, and Indian Point 1 are in
13 longterm SAFSTOR condition and there is a specific
14 inspection activity that we do at those facilities. I have
15 assigned inspectors to each of those facilities and they are
16 required to visit those facilities and do a full inspection
17 at least once a year. That inspection activity is
18 documented and those inspection reports are available.
19 Those visits are simply to verify that the condition of the
20 facility has not degraded and again I can supplement that in
21 those situations where there ^{is} ~~was~~ a resident staff available,
22 such as Peach Bottom, TMI, and the Indian Point sites.

23 The major inspection activities in the region when
24 it comes to decommissioning of reactors are those that are
25 actively undergoing dismantlement and decontamination.

1 There is a specific manual chapter that we use to ensure
2 that all of the inspection areas are appropriately covered.

3 The frequency of the inspections is based a lot on
4 what is going on at the site. It is based a lot on the
5 input of any members of the public that believe that there
6 is an area that we need to look at. It's based on a number
7 of activities that are folded into what is best use of
8 resources so we can be there at the heightened times of
9 activity to ensure that the dismantlement and
10 decontamination is being done in a safe manner.

11 The areas of inspection are all-encompassing. We
12 look at the organization of the licensee, its management and
13 cost controls. We look at how they are doing their safety
14 reviews, how they make changes to their safety reviews and
15 their procedures and how they are going to make
16 modifications to the facility.

17 We look at their self-assessments.
18 Self-assessments is a significant factor in how we view how
19 the licensee is doing. We look at how they are doing their
20 audits. We look at who is doing their audits. We look at
21 the findings that come out of those self-assessments and
22 audits and we look at how they track and implement the
23 corrective actions for the findings that they observe.

24 We look at the preparations for reactor fuel
25 handling. We verify that there are certified fuel handlers

1 trained on staff, onsite, and able to perform the reactor
2 fuel handling in a safe and competent manner.

3 We continually look at maintenance and
4 surveillance. Annually we look at cold weather
5 preparations, ~~and~~ we look at the safety of the spent fuel
6 pool. There is a continuous review of occupational
7 radiation exposure. When we get to the final survey stage
8 of the plant our activities will ~~get a~~ ^{again} ramp-up. I will have
9 contractors out here in accordance and in agreement with the
10 Office of Nuclear Material Safety and Safeguards to do a
11 very significant confirmatory effort activity once the
12 licensee's License Termination Plan has been submitted, as
13 already explained.

14 We look at radwaste treatment, we look at the
15 effluents from the plant and we look at the licensee's
16 ability to monitor the effluents and their ability to
17 monitor the environment. We will split samples with them.
18 We will take independent measurements continually and we
19 will verify not only that the licensee's measurements are
20 accurate, but their program to monitor the radioactivity is
21 appropriate and has the appropriate sensitivity and
22 accuracy. We will not initiate a program where we will
23 continually monitor the licensee effluents from the plant
24 whether those be solid, liquid or gaseous, but we will do a
25 routine audit to ensure that again, first, we are satisfied

1 with their program, and we will independently split samples
2 to verify that those measurements are accurate.

3 We look at the solid radwaste management
4 activities on site both during the decommissioning and
5 dismantlement and at the end when major components are
6 removed and ~~we~~ ^{we'll} look at the transportation of those
7 components and radioactive material offsite.

8 We look at emergency preparedness. We would
9 expect both in the areas of emergency preparedness and
10 physical security that there will be changes to the
11 licensee's program that is now submitted on the docket. Mr.
12 Wheeler and his staff will review them and make the
13 appropriate licensing reviews and any appropriate changes to
14 the license and license conditions and then we will do
15 inspections to verify that there is still an adequate state
16 of emergency preparedness. We will have inspectors out here
17 to actually monitor drills and exercises and again to report
18 on those activities in a written and public forum.

19 We think that the public involvement in this
20 process is important from a regional perspective as well as
21 from the Headquarters perspective. All of our inspection
22 reports will continue to be made available to you. I or
23 appropriate members of my staff will be glad to attend
24 future public meetings. We will be here at the PSDAR public
25 meeting that Mr. Wheeler has mentioned and we are also

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1 continually available for comments, questions or concerns
2 that you may have.

3 The Region I office can be contacted at the (610)
4 number up here. You can either ask for me directly or you
5 can ask for the Decommissioning Branch. They will know who
6 I am and they will get me very quickly. We have the
7 (800) number that is listed up there.

8 I would also encourage you now remember that
9 there is resident staff at Millstone. Mr. Paul Cataldo is
10 very familiar with the Unit 1 facility. I have listed his
11 number here and again he is also ready, willing and able to
12 take any of your concerns, questions, or comments at any
13 time.

14 You can also get us through the Headquarters
15 Operations Officer. They know how to get I or a member of
16 my staff 24 hours a day, seven days a week, 52 weeks out of
17 the year, and I can tell you that that process does work, so
18 if there is something that is of great health and safety
19 significance and you need to talk to somebody, we will find
20 a technical person to talk to you at whatever hour you think
21 it is appropriate.

22 Duke did put his E-mail address on his slide. I
23 will also tell you that I can also be reached by E-mail. My
24 E-mail initials are RRB1@NRC.gov and I would be more than
25 willing to accept any E-mail comments, questions or concerns

1 that you might have.

2 ~~MR. SHERIDAN~~ ^{WHEELER} Thank you, Ron. We are at that
3 point in the agenda -- in organizing this meeting I did
4 invite the utility to join us for a brief description for
5 you of the present status of their decommissioning plans.
6 Mr. Frank Rothen is here with us to do that, and he will do
7 that at this time.

8 MR. ROTHEN: Thank you, Mr. Wheeler. My name is
9 Frank Rothen. I am the Vice President of Site Services for
10 Millstone Station. I am also the corporate officer
11 responsible for the decommissioning of Millstone Unit 1.

12 With me tonight is Ernie Harkness, who is the Unit
13 Director for Operations at Millstone Unit 1 and also Ron
14 Sachatello, who is going to be working the slides there for
15 us, who is the Project Manager of the Site Characterization
16 at Millstone.

17 Our number one priority is to maintain the unit in
18 a safe condition. We have been working vigorously towards
19 that end as we are coming up with the overall
20 decommissioning plan. We have a number of priorities on the
21 station right now currently, and the number one priority for
22 us is the safe operation of Millstone 3, followed very
23 closely by the restart of Unit 2.

24 This takes on significance for Unit 1 activities
25 because we have several systems on Unit 1 that the Unit 1

1 staff is responsible for that is required for the operations
2 of Millstone Unit 2 and 3 and that is part of our licensing
3 responsibility.

4 We are in the process of evaluating and selecting
5 an effective decommissioning option. As Mr. Wheeler had
6 stated, there are two options available to us. One is
7 SAFSTOR and the other one is dismantlement. We have yet to
8 reach a conclusion on the method that we will use. It is
9 hoped that by the middle of the summer, hopefully by the end
10 of the second quarter or the beginning of the third quarter
11 we will be able to make that presentation to the NRC and
12 then we will have a public hearing on that so we can share
13 it with the public.

14 Our overall philosophy is to conduct all work in a
15 safe and planned manner and I know that there are times --
16 we have been shut down now for 11 months -- since we
17 announced that we are going to go into the decommissioning
18 phase that there's been some frustration expressed that we
19 are moving quite slowly. We have by law two years and in
20 order to prepare the PSDAR we feel that it is important that
21 we take the time and in a very deliberate and direct manner
22 look out for the best means we can to come up with a
23 solution to the problem that will be acceptable not only to
24 the regulator but to the public.

25 Our safety performance is not one just from a

1 regulatory perspective. We look at industrial safety as
2 being very high on our list also, and that comes through
3 with the careful, dedicated approach. Basically what we
4 have done is gone through work planning activities on a case
5 by case basis. We have taken the time to brief properly all
6 individuals that are working on the unit. We are using a
7 very deliberate process to do that and it has paid off
8 dividends from the industrial safety perspective and that
9 the unit right now currently, I am proud to say, has had
10 over 720,000 man-hours without a lost time accident and in
11 this past year the unit was given the President's Award from
12 Northeast Utilities for being the safest plant in their
13 system.

14 AUDIFNCE PARTICIPANT: Bravo, bravo.

15 MR. ROTHEN: Negotiations are underway currently
16 to sell the new fuel assemblies that we had purchased when
17 we thought the unit was still going to be operational. We
18 had purchased a partial core at that time. There were a lot
19 of questions on what we were going to do with that fuel. We
20 are currently in negotiations with ^{several other} ~~the~~ utilities looking for
21 the best possible method to sell that fuel and move it
22 offsite and we will be in contact with the regulator when we
23 decide to do that.

24 Offsite radiological monitoring -- there have been
25 a lot of concerns raised in the community about radiological

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1 issues that have come up, whether or not they were safe, if
2 there was any of the contamination issues associated with
3 Millstone that might be in the community.

4 We had at the time of construction of the facility
5 at Millstone Station we had given a lot of fill to various
6 areas in the community. We had given fill to Harkness State
7 Park and we had given fill to the ballfields. There is a
8 huge mound of dirt out there on the property that has also
9 come into question. There was issues raised by a number of
10 citizens as to whether or not it was safe for their people
11 to use those ballfields. There was issues raised by the
12 First Selectman, Tony Sheridan, and we have gone out and
13 done numerous surveys. The NRC has done numerous surveys.
14 The DEP has done numerous surveys. The ballfields in
15 Waterford alone we did surveys that amounted to over 100,000
16 check-points on that field. We did a pattern that was
17 broken down into squares the size of a foot and over 100,000
18 samples were taken in those areas, as measurements were
19 taken to verify that in fact every inch of that ballfield
20 was safe, and we are proud to say that the DEP sent a letter
21 to the Town of Waterford this past week confirming that all
22 their independent surveys, which were as extensive as
23 Millstone's, verified the fact that these areas are
24 radiologically free of any contamination.

25 As I said earlier, the surveys involved the

1 Waterford ballfield., the Harkness State Park and the
2 Waterford landfill. The surveys included direct radiation
3 measurements, field radiation scans, soil sample analysis,
4 and again no Millstone-produced radioactivity was detected
5 at any of these offsite locations.

6 The Year 2000 readiness, the Millennium -- big
7 issue. Everybody is bringing it up. We have had a
8 presentation at the request of CRC at the Waterford Library
9 about a week and a half ago where there was a large debate
10 about that. We have another one planned on the 18th for the
11 Nuclear Energy Advisory Commission. We will be making a
12 presentation there.

13 There really is, as we have gone through this
14 review we have a mandate from the NRC to be able to be Y2K
15 compliant and have a plan in place by July 1st of this year.
16 We are comfortable that we are on target to be able to meet
17 that objective.

18 We have had independent surveys done of our
19 program and it has been audited by people outside of
20 Northeast Utilities to verify that we are meeting the intent
21 of the plan and program. In the case of Unit 1 we find that
22 there are no systems in need of remediation and right now
23 the bulk of the systems on Millstone Station in general
24 terms we find that there is very little remediation that we
25 have identified that is required on any of the safety

1 systems. Basically the vintage of the plants are such that
2 because of their age almost any of the computer systems that
3 we have tied in are basically for monitoring those systems
4 and not the actual control and operation of those systems as
5 is the case on some of the newer plants.

6 We have contingency plans we are formulating right
7 now. One of the concerns that we have that deals with Y2K
8 is the services we receive offsite -- offsite power, water,
9 communications and those issue that are outside of our
10 control. We are developing currently contingency plans to
11 make sure that we are able to safely and effectively operate
12 our plants and in the case of Millstone Unit 1 maintain our
13 plants even if we do have some disruptions from outside the
14 station.

15 A regulatory update -- basically we have submitted
16 a license amendment for fuel handler status on the unit that
17 is currently with the NRC under review. We have additional
18 tech spec revisions that we are working on right now that we
19 will be submitting at a later date as ^{they are} completed by the
20 planning group that is onsite working on that process.

21 Our plans for decommissioning, as I said earlier,
22 that we are reviewing two options, and both of them deal
23 with the cost perspective of what is the most efficient way
24 to go. We have to submit those plans not only to the NRC
25 but we have to docket that plan with the Connecticut DPUC.

1 We are scheduled to give an estimate to the DPUC at the
2 April hearings. We are in the process of doing that,
3 revising the initial estimate, right now to them, and they
4 will make a determination on how much money and what funds
5 are available to us to do the complete decommissioning, so
6 it is important that we act in a prudent manner and that the
7 funds that are allocated are sufficient for us to do an
8 effective job and do it safely. We are in the process of
9 evaluating that right now.

10 We are also looking at the possibility of using
11 what is commonly referred to as the DOC, the Decommissioning
12 Operations Contract, similar to what was used at Maine
13 Yankee. We haven't come to any firm conclusions on that.
14 There are several proposals that we are reviewing right now
15 and we hope to be able to make a decision by the end of the
16 second quarter of this year.

17 Again, the PSDAR, Post Shutdown Decommissioning
18 Activities Report will be submitted in the middle of this
19 year.

20 The major milestones to date: The Unit was shut
21 down on 11-4-95. We submitted the 50.82 letter in July of
22 1998. We had our first public meeting at the White Flint
23 facility with the NRC on December 2nd and the first public
24 meeting is of course -- for the NRC is today so another
25 major milestone in the process.

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1 We have key submittals that we will be making to
2 the regulator over the next six months. We have a
3 decommissioning schedule that we are working on right now.
4 We have a team working on the station to put that in place
5 so we'll be able to make a public presentation on it, and
6 like I say we are looking to submit the PSDAR in the third
7 quarter of this year, hopefully.

8 Decision on the DOC is something that we want to
9 do this year and I think it shouldn't take us until the end
10 of the year. We should be in a pretty ^{firm} position to make that
11 decision by the middle of the year. I know the slide says
12 the 12th but we are hoping to do it sooner than that.

13 Primarily the major consideration we have is for
14 our people who are working there. People have been on that
15 unit for a long time. A lot of them have spent their entire
16 career there, 20 or more years, and a difficult decision
17 when you decide to shut a unit down like that. I have to
18 admit I am very proud of the performance of those
19 individuals. We have been able to maintain the material
20 condition of the unit at a very high state of readiness.
21 People are very much aware of what their responsibilities
22 are. They meet very high standards when it comes to
23 maintaining systems for the two operating units and we are
24 looking to be able to come up with a final plan not just for
25 the public and the NRC but for the ^{people that work here so we} ~~employees~~.

*Can tell them concretely what their future holds and what
future plans we have for them.*

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1 So with that said, Duke, I appreciate the
2 opportunity to give you the update.

3 MR. WHEELER: Thank you, Frank. We are the point
4 on our agenda now where we are going to open the meeting up
5 for members of the public to make comments and ask questions
6 of the NRC staff that is assembled here this evening, and
7 also any questions that they may wish to direct toward the
8 licensee representatives that are here. And, ^{Etoys}~~according to~~
9 the sign-up list, please.

10 MR. SHERIDAN: For the purpose of those of you who
11 came in late, again, let's -- to try and make sure everyone
12 has an opportunity to speak, I would ask those of you to,
13 first of all, pronounce your name so that the recorder can
14 make a record of it, and, secondly, to restrict your
15 comments, if you may, to approximately three minutes, and
16 that way we can go around a second time if people have
17 follow-up questions. So with that, Rosemary, you are on
18 first.

19 MS. BASSILAKIS: Good evening, my name is Rosemary
20 Bassilakis, I live in Haddam. I am with the Citizens
21 Awareness Network. Somebody has to go first, I guess it is
22 me tonight, and I probably will come back because I don't
23 think I can do this in three minutes.

24 Just, before I begin to touch on decommissioning,
25 I think it is an important time to reflect on some things

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1 about Millstone 1. First of all, I think we should reflect
2 on the fact that Millstone Point was sacrificed to three
3 nuclear reactors. It was once a very beautiful site, it is
4 no longer that. And these power plants proved not to be too
5 cheap to meter, nor did they prove to be non-polluting.

6 We should think about the millions of curies of
7 radiation that was released into the host community from
8 Millstone Unit 1 alone. Millions of curies of radiation
9 into the host community, it is a real shame.

10 We should think about the hundreds and hundreds of
11 shipments of low level radioactive waste that was moved to
12 Barnwell, South Carolina, and I say moved, because you
13 really don't clean up radioactivity, you simply transport it
14 to another community, and that is exactly what is going to
15 happen with this entire nuclear reactor.

16 We can also reflect on the vast amount of high
17 level radioactive waste that was generated at Millstone
18 Unit 1, high level radioactive waste for which there is no
19 permanent, safe or ethical solution at this point in time.
20 So I just -- I know this is a little bit off the topic, but
21 I think it is very important to reflect on these things as
22 we go into the decommissioning mode.

23 Now, we believe, our organization believes that
24 the NRC's new rule is flawed in and of itself. I don't know
25 if people know, but the NRC came up with a new

1 decommissioning rule back in 1996. Our organization does
2 plan on challenging this rule, first, through trying to get
3 a rule change, and if that doesn't work, then going back to
4 the Appellate Courts and, hopefully, they will understand
5 our position.

6 And the reasons we believe that we need to
7 challenge this rule is, first of all, the public is not
8 entitled to a hearing on decommissioning until after
9 decommissioning is complete, and that is absolutely absurd,
10 to not allow the community to have any input, any real
11 input. Now, it is nice that we have an opportunity to speak
12 before you tonight, and I do appreciate that, but we have no
13 power. Speaking before you is much different than having a
14 say in what goes on during decommissioning.

15 And you did mention that we can get a hearing at
16 the end. I assume that you mean during the license
17 termination plan process. Well, that is only if you can
18 maybe afford to hire an attorney, or if maybe you have the
19 expertise within the organization to come up with
20 contentions that are acceptable to the Atomic Safety and
21 Licensing Board -- no easy task. It is not just a matter of
22 asking for a hearing, you have to jump through all kinds of
23 hoops, and the NRC knows this, and they should present it as
24 such right from the get-go.

25 The new rule, as you mentioned, doesn't require a

1 detailed decommissioning plan. A post-shutdown
2 decommissioning activity report is all that is required.
3 You mentioned it could be anywhere from 15 to 30 pages.
4 Connecticut Yankee's was 13 pages. The problem with this is
5 that it does not give the public any way of knowing what is
6 going to go on at that reactor and how they will be
7 impacted. It is vague, it lacks any detail for which we can
8 understand these things, that is the problem.

9 And once it is submitted, within 90 days, they can
10 begin doing major dismantlement activities. The NRC doesn't
11 have to approve the plan, but within 90 days they can begin
12 cutting apart highly irradiated piping and shipping them on
13 barges or trucks or railways. This is a problem.

14 Because decommissioning is not considered to have
15 significant potential to impact health and safety, there is
16 less NRC oversight. Now, it is true, maybe the community
17 will be less impacted, but the workers -- the workers are
18 highly impacted because they are the ones that are going to
19 be cutting apart, stripping, dissolving, you name it, the
20 highly irradiated components over there, and for that
21 reason, we believe an NRC inspector should be on site.

22 And, lastly, as far as the rule goes, and why we
23 oppose it, the rule no longer classifies decommissioning as
24 a major federal action, therefore, licensees aren't subject
25 to the National Environmental Policy Act standards, and we

1 believe this is actually illegal, and that nuclear reactors
2 do have to do site-specific Environmental Impact Statements
3 to see how decommissioning will impact the environment. So
4 we do plan on challenging this rule.

5 Are you timing?

6 MR. SHERIDAN: Well, I think I am being very
7 liberal right now.

8 MS. BASSILAKIS: Okay. Well, I will come back. I
9 have no problem --

10 MR. SHERIDAN: Would you mind, because I think --

11 MS. BASSILAKIS: No problem.

12 MR. SHERIDAN: In fairness to everybody else.

13 MS. BASSILAKIS: I will even collect my thoughts.

14 MR. SHERIDAN: Before you leave, I would like to
15 give you a letter, if you don't mind, from -- give me that
16 mike. This is a letter from Dr. Wiles from the Connecticut
17 Radiation Monitoring Department, and I get very nervous,
18 actually, as you can imagine, when I hear people talk about
19 the excess radiation than leaks from Millstone. I just want
20 to reiterate Frank Rothan's comments from earlier, I think
21 that letter outlines the extensive studies that were done on
22 all the ball fields surrounding Millstone, which,
23 essentially, encompasses the plant, and I would really
24 appreciate if you could read that, and I would be happy to
25 chat with you, and I am sure others would at another date.

1 Now, next on the list is Sal. Sal.

2 MR. WHEELER: Tony, one note here, if you could
3 make sure that I am provided a copy of that letter, because
4 I would like to get as complete a record of this meeting as
5 I can, and I would like to attach it to the transcript.

6 MR. SHERIDAN: I will be happy to do that.

7 Go ahead, Sal.

8 MR. MANGIAGLI: Good evening, my name is Sal
9 Mangiagli. I live in Haddam, Connecticut, a mile from the
10 Connecticut Yankee reactor, and I am with and for the
11 Citizens Awareness Network.

12 I would like to talk about this grand illusion of
13 radioactive waste being, you know, trucked off to another
14 site as if it disappears and, as if, you know, you clean up
15 a site and there is, you know, no problem with radioactive
16 waste management.

17 And I have a report here from the South Carolina
18 Department of Health and Environmental Control, Bureau of
19 Solid and Hazardous Waste Management, Division of
20 Radioactive Waste Management, and the report is tritium
21 migration at the Barnwell low level radioactive waste
22 disposal facility, January 9th, 1995. As of that date, they
23 found tritium leaking from the Barnwell site and it says
24 here that the monitor well was located on the Chem Nuclear
25 property, approximately 2,200 feet south of the disposal

1 trenches. The tritium plume is now approximately 3,100 feet
2 long and has a width which tapers as it moves towards Mary's
3 Branch. Mary's Branch is a creek on the edge of the
4 property that this tritium is heading towards. The width is
5 generally considered to be 750 feet for calculation
6 purposes. The approximate surface area of the plume is,
7 therefore, 46 acres.

8 This is the Barnwell low radioactive waste dump
9 where Millstone -- where Northeast Utilities will be
10 shipping their radioactive waste. This is unacceptable,
11 this is very low tech technology, where they are burying
12 radioactive waste in unlined, some clay-lined trenches, but,
13 for the most part, unlined trenches.

14 At Connecticut Yankee last year, a representative
15 from Chem Nuclear came up to talk about how wonderful
16 Barnwell is and the technology to deal with these low level,
17 high hazard wastes. And last year, when he was giving his
18 presentation, he talked about some leaks at the site. And
19 when I asked how much of an area the leaks have covered, he
20 told me 100 acres. So in 1995 it was 46 acres, last year it
21 is a hundred acres.

22 This is really, you know, this is an illusion that
23 you are creating, that like this waste just disappears or
24 something, that it is being taken care of and it is a farce
25 and a charade, and it is unacceptable to contaminate another

1 community -- poor, rural, 46 percent African-American. It
2 is unacceptable to contaminate another community to clean up
3 your own liability, and to just dump it on another
4 community.

5 Every low level radioactive waste dump in this
6 country has leaked. Of the six radioactive waste dumps
7 nationwide, three have been closed because of excessive
8 leakage. Barnwell is open, a hundred acres isn't excessive.

9 It seems at this time in the Atomic Age, when
10 aging reactors are shutting down prematurely, -- none of
11 them are running their 40 years, they are falling part.
12 They are corroding and they are dilapidating a lot faster
13 than anyone anticipated. This is a problem that needs to be
14 addressed, but to just close these reactors and dump then on
15 another community is sickening. You should mandate SAFSTOR
16 -- not until the other reactors are closed and they can take
17 them all apart at once, but you should mandate SAFSTOR for
18 the full 50 years.

19 NRC report, right here, your own documents -- the
20 storage and entombment methods allowed for reduction in the
21 levels of radioactivity over time. NRC studies have shown
22 that after 50 years, the volume of radioactively
23 contaminated material would be reduced to one-tenth of the
24 original volume as a result of radioactive decay. What is
25 the rush, guys? A tenth of the radioactive decay -- that

1 the workers have to deal with, that the drivers in the
2 trucks that are going to be driving your garbage down there
3 will have to deal with, the people at the truck stops.

4 God forbid there is any accidents with these
5 shipments. The police aren't informed. The emergency
6 preparedness people aren't aware. What about a fire with
7 one of these trucks crashing on the highway and that diesel
8 fuel burning? What is going to happen to those lofted
9 nuclides? Who is going to deal with that?

10 There is no rush. There is no rush at all. A
11 delay in dismantling a plant would also result in lower
12 ^{radiation} exposure to the workers involved. This is NRC's document.
13 The only reactor sites that are using SAFSTOR are the ones
14 that are multi-complex sites, because it is cheaper for the
15 utility to dismantle those reactors all at once.
16 Connecticut Yankee is using the strip-and-ship method. It
17 is fast, it is dirty, it is cheap, and we believe it is
18 illegal.

19 ^{next} I believe that the NRC should mandate SAFSTOR. In
20 the ^{next} 20 -- in the next 10 years, with deregulation of the
21 electric industry coming, it is projected that 25 reactors
22 are going to be prematurely shutting down. The floodgates
23 of waste are just beginning to open. Tons and tons and tons
24 of radioactive garbage, plumbing, and piping, and concrete,
25 and liquid, and solid and -- where is it all going? You are

1 just going to throw it in the ground and let it leach out?
2 It is unacceptable. Mandate SAFSTOR.

3 MR. SHERIDAN: Thank you. The next person on the
4 list is Jen Gutshall.

5 [Applause.]

6 MS. GUTSHALL: My name is Jennifer Gutshall, I am
7 from New Haven, Connecticut. First, I would like to just
8 express my frustration with the comment that has been made
9 at least five times about the Nuclear Regulatory
10 Commission's extensive experience with decommissioning. As
11 far as I understand, this is only the second boiling water
12 reactor to have been facing decommissioning, which has --
13 because of that set-up, has its own specific and inherent
14 problems, and issues.

15 I also want to note that I did participate in the
16 preliminary hearing up at -- regarding Yankee Rowe up in
17 Greenfield, Massachusetts, and I know that in order to ~~have~~
18 even have gotten that hearing, which you would think, you
19 know, it is in the public interest, the public should have
20 an ability to comment on things that vitally and directly
21 affect them, yet, I know that when Citizens Awareness
22 Network and the Nuclear Coalition on Nuclear Pollution ~~met~~
23 ~~at~~ *submitted* their contentions that the Nuclear Regulatory Commission
24 responded by forcing Citizens Awareness Network to say it in
25 just the precise way, with the precise words, in the precise

1 format, with the precise jargon, to be accepted into this
2 process.

3 We are not lawyers, we don't have the money to
4 hire lawyers, we are the public. If it takes individuals to
5 raise money, who don't have money, to raise money from other
6 people who do not have money, to hire a lawyer to put it in
7 specific language so that you can understand that, when you
8 know damn well what we are saying, it is an outrage, an
9 utter outrage.

10 And I just want to leave one last question, leave
11 with one last question. How much radioactivity to do you
12 plan to leave behind after you decommission? How much
13 radioactivity do you plan to leave with this community after
14 it has already been dumped on for years and years and years?

15 AUDIENCE PARTICIPANT: That is a question, it
16 should be answered.

17 MS. GUTSHALL: And that is a question. I am not
18 really sure if this --

19 AUDIENCE PARTICIPANT: The NRC should be
20 answering.

21 MR. SHERIDAN: Could I suggest that there are two
22 questions? One was the -- the first one was the boiler
23 reactors, there was a comment made that there were two
24 boiler reactors decommissioned. Is that a correct
25 statement?

1 MR. MASNIK: Actually, I believe there are four.
2 Humboldt Bay, ^{✓4/licitos} ~~Valesides~~ Boiling Water Reactor, Big Rock
3 Point, and ^{now} Millstone.
4

5 MS. GUTSHALL: Is Big Rock in -- how far is Big
6 Rock into their decommissioning?

7 MR. MASNIK: They have begun dismantlement.

8 MS. GUTSHALL: Okay.

9 MR. MASNIK: I'm sorry. I'm Mike Masnik, for the
10 transcript.

11 MR. SHERIDAN: And the second question had to do
12 with --

13 MS. GUTSHALL: How much radioactivity do you plan
14 to leave behind in Waterford, in this poor community that
15 has already been dumped on for years?

16 MR. MASNIK: The Commission will require the
17 licensee to submit a license termination plan, and the
18 current standards require the licensee to clean up the site
19 to a level where the dose to an individual is less than 25
20 millirem a year.

21 MS. GUTSHALL: Isn't it correct that the
22 definition of the individual, the standard individual, is a
23 200 pound male who spends eight hours on site a day, and who
24 gardens 1 percent of the time? Now, I am not all that
25 familiar with Waterford, but I assume there are some farms
around here, and I assume there are some women, and I assume

1 there are some children. And I assume there are some
2 individuals with particular illnesses that -- particularly
3 Lyme Disease, which cause a certain sort of immune
4 deficiency. Wouldn't it be proper to define that standard
5 on how much an individual -- (1), to redefine how much
6 radiation an individual can receive, but, (2) redefine who
7 is receiving it to suit the most affected type of person,
8 particularly a child?

9 MR. MASNIK: I think we discussed this last week,
10 but -- again, Mike Masnik. It is a 70 kilogram individual,
11 which is about 153 or 154 pounds, and it is a male.

12 MS. GUTSHALL: But it is not a pregnant woman, it
13 is not an elderly mother, it is not --

14 MR. MASNIK: No, it is not.

15 MS. GUTSHALL: -- a tiny child, it is not a fetus.

16 MR. MASNIK: No, it is not.

17 MS. GUTSHALL: And it is true that these
18 individuals are most -- what is the word?

19 AUDIENCE PARTICIPANT: Vulnerable.

20 MS. GUTSHALL: Vulnerable. Vulnerable. And that
21 to be really safe, to really take Waterford, the community,
22 its individuals, the people that live here into
23 consideration in a fair way, wouldn't it be more appropriate
24 to define that standard on the most vulnerable?

25 AUDIENCE PARTICIPANT: Yes.

1 MR. BELLAMY: This is Ron Bellamy. I think what
2 Mike has expressed so far is what the NRC standard is.

3 MS. GUTSHALL: I understand the standard.

4 MR. BELLAMY: The other part of the regulation is
5 the "as low as reasonably achievable" criteria. And the 25
6 -- it is 25 millirem or as low as reasonably achievable.
7 And we will take a look at exactly what the specific
8 situation is at Waterford or any other community in the area
9 of Millstone or any other plant to ensure that the 25
10 millirem and the "as low as reasonably achievable" criteria
11 are satisfied.

12 MS. GUTSHALL: Twenty-five millirem exposure to a
13 child, compared to 25 millirem exposure to a 200 pound male
14 is very different.

15 MR. BELLAMY: You are absolutely right. You are
16 absolutely right.

17 MS. GUTSHALL: I hope you can look at pregnant
18 mothers in this community who are concerned about the health
19 of their children and say the same thing. Thank you.

20 MR. BELLAMY: I think -- can I?

21 MR. SHERIDAN: Go ahead.

22 MR. BELLAMY: I think to put it in perspective
23 now, you have to remember that a dental X-ray is generally
24 around 20 millirem, number one. And, number two, natural
25 background radiation in this area is about 250 millirem a

1 year. So the 25 millirem a year is 10 percent of natural
2 background which you are going to get whether Millstone
3 Station was here or whether Millstone Station was not here.

4 MS. GUTSHALL: I understand pregnant women don't
5 generally get dental X-rays.

6 MR. SHERIDAN: Well, let's -- Pete Reynolds is
7 next on the list.

8 MR. REYNOLDS: My name is Pete Reynolds, I live in
9 Waterford. And I am a 210 pound male, and I was highly
10 exposed at Millstone, I used to work there. So people here
11 do have concerns, and I want to congratulate you gentlemen
12 on coming here, you know, considering what has been going on
13 at Waterford for the past couple of years, our dealings with
14 the NRC, and Mr. Rothan for getting up and giving his
15 presentation, I know him quite well, probably too well.

16 But getting down to the point of Unit 1, the first
17 thing, Northeast Utilities made the profit. Waterford made
18 profit by their low taxes, that's one of the reasons I moved
19 here. So safe storage, in the light of everything else,
20 does seem like a good idea. So it is going to take 50
21 years. Look at ^{it} this way, like Rothan said, the employees at
22 Millstone Unit 1, you could probably keep half the people
23 there for 50 years, so that's one way of looking at it. You
24 make the profit, you got to bite the bullet somewhere along
25 the line. Businesses do that, they have to accept the

1 risks. And the last I remember, Northeast Utilities, they
2 don't have the funds to decommission Connecticut Yankee,
3 they don't have the funds that were set aside to
4 decommission Unit 1.

5 So in the next 50 years, technology is going to
6 zoom. And not only that, but maybe the U.S. Government will
7 get off their butt and do something about high level
8 radiation storage. But it is feasible, especially with the
9 multi-plant that they have, it would be cheaper for
10 Northeast Utilities to dismantle all of them at once, which
11 they could start doing now, it would be better for me, than do
12 one at a time and incur the same expenses over a three phase
13 period, because when Unit 2 is decommissioned, and Unit 3 is
14 decommissioned, they are going to go through the same
15 process. So why not do it all at once. Put Unit 1 in cold
16 storage, safe cold storage.

17 That's one of the other things. You talk about
18 self-assessments at the plant, that Unit 1 received the
19 company president's award for being safe the past year.
20 Well, it is easy to be safe at a plant when it is not
21 operating, producing electricity, that makes it easier.
22 They had 720,000 man-hours without a lost time accident. If
23 not performing the amount of work that you would normally do
24 on a plant, that is probably easy to achieve. Plus, you
25 have outside contractors coming in, that will add more

1 man-hours.

2 But I remember back in 1991, that there was a lost
3 -- in 1990, there was a lost time accident that never got
4 reported, and it helped Millstone achieve a million
5 man-hours. So it is hard for me to believe what comes out
6 of Northeast Utilities about safety. And that presents a
7 problem with decommissioning, just like the problem we had
8 at Connecticut Yankee, things not being done right,
9 short-cuts being taken, improper supervision. So it all
10 boils down to, you know, we have to believe you, what you
11 are saying, and all the people of Waterford are well aware
12 that that can't be -- just recently, the NRC hid facts from
13 their own Commission so Unit 3 could start up.

14 And now you are ^{talking about} taking a power plant off the
15 rate-base, the company is not going to be getting any
16 profits from that plant. They are going to take all kinds
17 of short-cuts to save money. Anybody out to make money is
18 going to do that. They are not going to -- we can't rely on
19 the NRC to do their job of regulating this, because the NRC
20 has already said, during a decommissioning, there is not so
21 much to regulate. Well, maybe that is because there is no
22 power being put out, but regulations should be adhered to
23 just as though the plant was operating, because it is just
24 as dangerous and probably, in fact, more dangerous
25 decommissioning that plant, in some phases, than with the

1 plant operating, because things get lax. People do things
2 -- well, we are not operating. I have seen it happen just
3 during routine shutdowns at Millstone, the attitude, well,
4 we are not running, nothing can happen.

5 Then we have the spent fuel pool where all the
6 high radioactive material is going to be stored. The way
7 the systems are set up, you are going to need half the plant
8 just to keep these pools cool. So that goes back to a safe
9 shutdown, cold shutdown for 50 years. I think we would all
10 be better off. Maybe a lot of us here arguing the point now
11 might be dead by then, and you can do whatever the hell you
12 want, because that is what is going to happen anyway.

13 You are nice, you come here and you tell us the
14 facts of what is going to be done and everything. Then, in
15 reality, what actually happens -- and we have no say,
16 because we are only the public. We are only dumb, we don't
17 know nothing about radioactivity. I have got news for you
18 -- we probably know more about it than you do. We know how
19 to do it safely, not profitably. We talk about safety
20 versus cost.

21 I have got an NRC internal report at home that the
22 NRC measures the significance of a safety evaluation based
23 on the cost to them, the NRC themselves, plus the cost of
24 the utility. Now, this is from your own office. And you
25 can sit up there and say you are going to do everything

1 safely, not matter what the cost, and you can't afford the
2 cost of safety. That is why they shut down Unit 1, it would
3 cost them too much to bring it up to par the way it should
4 have been operated for the past 25 years.

5 So it is hard to believe exactly what you
6 gentlemen are trying to do. I live in Waterford, and I am
7 going to be watching you. And there's means besides courts
8 and I am pretty sure we can raise the money if we have to,
9 to take care of the problem. So don't try to fool us, don't
10 try to bullshit us. Be straight and do it right. That's
11 all.

12 MR. SHERIDAN: Thank you.

13 [Applause.]

14 MR. SHERIDAN: Phalis Buildmore. Is Phalis
15 Buildmore --

16 MR. BUILDMORE: Oh, that's Phalis.

17 MR. SHERIDAN: Phalis

18 MR. BUILDMORE: Phalis Buildmore.

19 MR. SHERIDAN: Are you Phalis?

20 MR. BUILDMORE: Yes, I am Phalis.

21 MR. SHERIDAN: Please come forward.

22 MR. BUILDMORE: Thank you. You don't mind if I
23 expose myself, do you?

24 MR. SHERIDAN: Well --

25 MR. BUILDMORE: Just a little.

1 MR. SHERIDAN: ^{Well, w' ll} Try and not get excited. ^{What can I say? 53}

2 MR. BUILDMORE: A little exposure. The NRC has
3 been talking about exposure all night. And you don't mind
4 if I turn my derriere to you guys, because that is ^{about how} ~~what~~ I
5 feel for you.

6 But people, I want to talk to you. My name is
7 Phalis Buildmore, and I am a clown. And I have been
8 following this dog-and-pony show all over New England, and
9 they go everywhere. They make all kinds of promises in
10 cryptic language that no one can understand. They say they
11 are going to do this, and they are going to do that. And
12 this and that. And that and this. And when it comes down
13 to it, they are going to just leave you all with a mess -- a
14 big mess. And you won't see it, you won't feel it, you
15 won't smell it, but you all be dying from it.

16 So I would like to do -- well, they ^{go} ~~going~~ around
17 doing their pony show, their dog-and-pony show, and it is a
18 drama, everyone is sad after they leave and distraught
19 because it is so heartfelt and so painful to listen to their
20 stuff.

21 So I would like to give you a little comic relief,
22 and I would like to give you a little cabaret. And I would
23 like to encourage you all, the next time they come down to
24 sock it to them. So, if you don't mind, I would like to
25 give you my poem now.

1 They found some funny rocks out on the Colorado
2 Flats, and they thought they would make some money, so they
3 hired some bureaucrats. Now, they say it is what we need to
4 keep us free from all our care, and we have atomic power
5 -- radiation everywhere.

6 Well, it is in the food, and it is in the air, and
7 it is in the milk kids drink. It is in the snow at
8 Christmas^{time} and it is in the kitchen sink. And down below the
9 continent there's tons of it on store, and all we have to do
10 is keep it safe for a million years or more.

11 Now,, it is the rage in Russia, in China and in
12 France, and every little dictator wants to get their power
13 chance. And they will breed it right along until there's
14 tons on it on store, and they will put it in their missiles
15 and they will have themselves a war.

16 Well, when we finally -- now, here's to all the
17 great men who have brought it right along, in all their war
18 and glory and in business, right or wrong. And when we
19 finally meet them, in the mansion in the sky, we can thank
20 them very kindly for kissing our ass goodbye.

21 You can't see it, you can't feel it, you can't
22 stash it in the hall. You can't serve it up for dinner, it
23 won't answer when you call. You can't flush it down the
24 toilet, and, my friends, this is no lie, you will give it
25 life and money but you will never make it die. Thank you.

1 [Applause.]

2 MR. SHERIDAN: Joe Besade. Where's Joe? You have
3 a hard act to follow, Joe.

4 AUDIENCE PARTICIPANT: Poor Joe.

5 MR. SHERIDAN: Joe is not with us. We will skip
6 over Joe for a minute and we go to Joe Amarello.

7 AUDIENCE PARTICIPANT: Joe Besade is here.

8 MR. SHERIDAN: Hey, Joe, come on, you are on next.

9 AUDIENCE PARTICIPANT: You can do it, Joe.

10 MR. BESADE: My name is Joe Besade and I am from
11 Waterford, Connecticut, a member of the CRC, also, the
12 newest chapter of Fish Unlimited.

13 One of the questions I have is the letter from the
14 DEP that our First Selectman mentioned earlier in his
15 putting in for -- documentation, a long kind of transcript.
16 What type of sampling was done? Was it core bored and how
17 deep?

18 MR. SHERIDAN: I will give you a copy of the
19 letter, Joe.

20 MR. BESADE: Okay.

21 MR. SHERIDAN: It is -- there were three types of
22 samplings, and someone could correct me if I am wrong here,
23 there was a below ground, surface level and waste level.

24 MR. BESADE: Okay. And the below ground would be
25 how deep, and how was it taken? I have names of commercial

1 companies that I will take and --

2 MR. SHERIDAN: I don't know how far down, but I
3 can give you a copy of the letter tomorrow, I would be happy
4 to give it to you.

5 MR. BESADE: That will be fine. Okay. My next
6 question is, after two years, I personally would like to
7 know who will be financially responsible for the dismantling
8 and cleanup of Millstone site if NU Utilities and their
9 partners find it more profitable to go belly-up? Does
10 anybody care to answer it at this time?

11 MR. MASNIK: Mike Masnik from the NRC. We have
12 had a lot of discussions over this many years ago when
13 General Public Utilities had an accident at Three Mile
14 Island. But, basically, if Northeast Utilities should go
15 into bankruptcy, there would be a proceedings and it is
16 probably likely that the judge would honor the requirements
17 of public health and safety before other factors, so that
18 the money for decommissioning would be preserved.

19 The money in the decommissioning trust fund, we
20 are reasonably certain, would also be preserved for the
21 cleanup. Now, if there is insufficient funds in the
22 utility's assets, then the plant could be placed into
23 storage for some period of time, or, ultimately, if there is
24 a question of public health and safety, it would be the
25 responsibility of the federal government to step in and

1 safeguard the public.

2 MR. BESADE: By the federal government, do you
3 mean the NRC or the OIG who is going to keep on the NRC?
4 Right now I don't have much faith in the NRC. I have been
5 to Washington, D.C. twice and with the -- watching local
6 politicians, our First Selectman and our Governor come over
7 to Millstone three years ago and say that it was perfectly
8 safe and none of us had anything to worry about it. It
9 seems as though the whistle-blowers, who haven't got any
10 recognition, that they really deserve, I guess they were
11 quite right and, as you know now, they have spent over a
12 billion dollars on their errors, what should have been done
13 a long time ago.

14 The part that bothers me is when the NRC makes a
15 statement, don't you think the Northeast has suffered enough
16 financially? I am not interested, and I am not happy to
17 hear the NRC's worry about their financial background. The
18 NRC's position is to look out for us small people and our
19 well-being. Thank you.

20 [Applause.]

21 MR. SHERIDAN: Thank you. The next person on the
22 list is Joe Amarello.

23 MR. AMARELLO: Good evening, my name is Joe
24 Amarello, I am an instructor at Northeast Utilities in the
25 Nuclear Training Department. I have been there for

1 approximately two years, and I am speaking for myself. I
2 just wanted to state that safety is my first priority every
3 day at work, and specifically with respect to Millstone
4 Station Unit 1, any training that I provide in support of
5 Unit 1, I will stress safety in all aspects of the
6 decommissioning effort. That's it.

7 [Applause.]

8 MR. SHERIDAN: Thank you. We have completed the
9 list that we were provided. Are there any other people who
10 have not signed up, that would like to speak? This lady and
11 then, Mark, you will be after her.

12 MS. WINSLOW: I guess I have a lot of questions.
13 Some of them have already been answered, but --

14 ~~MR. SHERIDAN~~ ^{WHEELER}: Excuse me.

15 MS. WINSLOW: My name is Geralyn Winslow, and I am
16 a resident of Waterford.

17 ~~MR. SHERIDAN~~ ^{WHEELER}: Excuse me. And since we don't have
18 your name on the sign-up list, just so that we get the
19 transcript accurate, would you please spell your last name?

20 MS. WINSLOW: Winslow, W-i-n-s-l-o-w.

21 ~~MR. SHERIDAN~~ ^{WHEELER}: Thank you.

22 MS. WINSLOW: And the first name is Geralyn,
23 because that is unusual name. G-e-r-a-l-y-n.

24 ~~MR. SHERIDAN~~ ^{WHEELER}: Thank you.

25 MS. WINSLOW: Okay. So the decision hasn't been

1 made about what they are going to do with Millstone 1 yet,
2 as far as the immediate future. It could be a while, it
3 could be right away. Is that the feeling I am getting here
4 tonight? No decision has been made yet?

5 ~~MR. WHEELER~~ ^{MASNIK}: Our regulations allow the licensee
6 to either dismantle the plant immediately or put it into
7 SAFSTOR for up to 60 years, in other words, complete the
8 process within 60 years, or a combination of either. The
9 licensee has not indicated to us which of those two options
10 they will plan to do, and they are required by the
11 regulation to let us know within two years of
12 decommissioning.

13 MS. WINSLOW: Okay. Because I had read in the
14 paper that they were going to let it sit for a while, and
15 that was the feeling I got before I came to this meeting
16 tonight, but now I hear that the choice hasn't been made
17 yet.

18 What about the components of the plant itself,
19 what do they do with that? When they take it apart, what do
20 they do with it?

21 ~~MR. WHEELER~~ ^{MASNIK}: Well, when they dismantle the plant,
22 based on our experience at other facilities, they either try
23 to decontaminate the components or parts, or pipes. Or, if
24 they are unable to decontaminate, in other words, remove the
25 radiation from the material, then they have to dispose of

1 that material off-site, and that would be the material that
2 would be sent down -- in the case of Northeast, it would be
3 sent down to Barnwell.

4 MS. WINSLOW: Would that be considered high level
5 or low level waste, or is it a combination of each?

6 ~~MASNIK~~ MR. ~~WHEELER~~: Well, you have to analyze the
7 ~~contamination~~
~~combination.~~

8 MS. WINSLOW: Depending on the situation?

9 ~~MASNIK~~ MR. ~~WHEELER~~: It depends on the situation.

10 MS. WINSLOW: Okay. Because I was curious about
11 that. And what about the high level waste, will it remain
12 on-site?

13 ~~MASNIK~~ MR. ~~WHEELER~~: Yes, until DOE has a permanent
14 repository. However, there are some other options. The
15 licensee might choose to put it in an interim storage
16 facility. There is some discussion of a national interim
17 repository.

18 MS. WINSLOW: I know all about that. I am just
19 curious about, at Waterford, will it stay in the spent fuel
20 pool?

21 ~~MASNIK~~ MR. ~~WHEELER~~: It depends what the licensee chooses
22 to do. They can keep it in the spent fuel pool for 40
23 years, or 30 years, or they could build dry storage and keep
24 it on-site in a dry storage facility, or they could ship it
25 to an interim facility if one was available. And if DOE --

1 MS. WINSLOW: But that hasn't been decided yet?

2 ~~MASNIK~~
MR. ~~WHEELER~~: No, it has not.

3 MS. WINSLOW: Okay.

4 ~~MASNIK~~
MR. ~~WHEELER~~: And if DOE licensed the high level
5 repository, they would be able to ship it to that as well.

6 MS. WINSLOW: Okay. How much high level waste is
7 there associated with Millstone Unit 1, in metric tons?

8 Because at one time I had heard some talk of measuring it in
9 metric tons. Does anybody have a number on that? How much
10 high level radioactive waste is being stored in the Unit 1

11 fuel pool, does anybody know? *MR. MASNIK: I don't know.*
MS. WINSLOW: So, ultimately all nuclear power plants are nothing but radioactive waste.
12 ... One hundred one Millstones piled up on top of each

13 other. That's a lot of radioactive waste. What are we
14 going to do with it all?

15 Right now some of it goes to Barnwell, South
16 Carolina, and it is leaking there. They don't want it
17 there. People in Texas don't want it, because I've spoken
18 and met with some of them. People in Maine decided they
19 didn't want it in any of their communities, so they're not
20 going to keep any of it there. Nevada doesn't want it,
21 although the Government wants to put it there. So nobody
22 wants it.

23 And I don't want to see Waterford ^{is} waste
24 contaminate any of those communities, so I'm in favor of
25 keeping it in Waterford, which sounds -- although strange

*⊗ It doesn't matter if it's high level or low level waste. But
you're talking about...*

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1 thing, I live here, but I would rather see it remain where
2 it was created. And it just boggles my mind to think of 100
3 nuclear plants being dismantled and put somewhere in storage
4 with no real assurance of safety there. And I just -- when
5 I think of that, it drives me crazy, and then I think well,
6 why are we still making it if we don't know what to do with
7 it? So my -- the only thing I could think of was maybe we
8 could just decide not to make it anymore, and then we could
9 put our heads together for a future for our children and our
10 planet.

11 Thank you.

12 MR. SHERIDAN: Mark, you're on. *Mark Holloway.*

13 MR. HOLLOWAY: Mark Holloway, Waterford,
14 Connecticut.

15 I didn't intend on speaking tonight or asking any
16 questions, but some things that were brought up really
17 concern me.

18 The gentleman mentioned a level as low as
19 reasonably achievable, and this was in reference to the
20 25-rem limit. Does this mean --

21 MR. BELLAMY: The answer is yes, and it's 25
22 millirem, not 25 rem.

23 MR. HOLLOWAY: Millirem. Okay.

24 MR. BELLAMY: There's a factor of 1,000 difference
25 there.

1 MR. HOLLOWAY: Yes, you're right.

2 MR. BELLAMY: 25 millirem.

3 MR. HOLLOWAY: 25 millirem. You're right.

4 MR. BELLAMY: Thank you.

5 MR. HOLLOWAY: That's a big difference.

6 MR. BELLAMY: Yes, it is.

7 MR. HOLLOWAY: Now as low as reasonably
8 achievable, what is our numbers for that? Is there any sort
9 of a quantifier for that?

10 MR. BELLAMY: I would have to say there's no
11 quantifiable way to define as low as reasonably achievable.
12 It's taking the situation that you have and seeing if
13 there's any reasonable way to reduce the dose any further.
14 It's a principle that is used daily in hundreds of
15 activities at this station and every other station in the
16 country.

17 MR. HOLLOWAY: So are we saying that the level
18 could exceed the 25 ~~millirem~~ ^{millirem} ~~millirem~~

19 MR. BELLAMY: No.

20 MR. HOLLOWAY: Millirem?

21 MR. BELLAMY: We are not. We are saying that you
22 first have to satisfy the 25 millirem per year. Then we're
23 saying that maybe that's not good enough, and if there is a
24 way to reasonably reduce that number, they would have to
25 reduce that number further.

1 MR. HOLLOWAY: Okay. So that --

2 MR. BELLAMY: And to get there --

3 MR. HOLLOWAY: That is your top -- that is your
4 top level.

5 MR. BELLAMY: Correct.

6 MR. HOLLOWAY: Okay. Good. I'm glad to hear
7 that --

8 MR. BELLAMY: Correct.

9 MR. HOLLOWAY: There's sometimes a problem in what
10 I look at as being a somewhat subjective measurement,
11 qualities, and --

12 MR. BELLAMY: I would agree as low as reasonably
13 achievable is a subjective criteria, yes. But again the 25
14 millirem per year is what you start with, and then you move
15 downward from that.

16 MR. HOLLOWAY: Okay. That sounds a lot better
17 than a wide-open criteria that is based upon someone's idea
18 of what can be achieved.

19 The area of responsibility in terms of high-level
20 waste, there's been a lot of talk about who should have it,
21 who's responsible for it. Apparently the DOE is by law
22 responsible for it, but since the DOE does not have an
23 acceptable site, even though they're trying to get Yucca
24 Mountain approved, why don't we even consider -- and I'll
25 bet you guys right now whatever you want to bet that

1 Northeast Utilities does not go with the SAFSTOR method for
2 Millstone 1. That didn't happen at CY, and I don't think
3 it's going to happen here.

4 And, you know, I'm not really sure why, except
5 that several people have said there's a cost measure. It is
6 more expensive. And it's also going to keep a facility
7 open. Another gentleman said well, it keeps people working.
8 But I guess that really doesn't matter. What really matters
9 is get rid of it quick.

10 MR. MASNIK: You know, there are some advantages
11 to immediate decontamination. There are advantages of both,
12 obviously. I mean, SAFSTOR clearly you reduce the volume
13 and you reduce the exposure to the work force. But there
14 are some values to DECON. You have an experienced work
15 force now that knows the plant. In 50 years that won't be
16 the case. ^{You...} The Agency has put a lot of stock into that.

17 Another thing that we're concerned about is -- and
18 we have to be realistic here -- once the facility is no
19 longer generating money, there is not a lot of incentive for
20 the licensee to spend a lot of money on the facility. And
21 one of the things we're concerned about in storing these
22 facilities for quite a few years is degradation of the
23 barriers to the environment. You know, we're very sensitive
24 to that. So those two things I think are significant in our
25 mind as far as the DECON is concerned.

1 Now in 1988 the Commission did an environmental
2 impact statement, what we call a generic environmental
3 impact statement, where we looked at a number of options,
4 and the two that were clearly acceptable for plants were the
5 DECON and the SAFSTOR options. And we decided that either
6 of those or a combination of those were acceptable. It was
7 up to the licensee to make the decision. And we've got
8 experience in both, and there are pros and cons for both.

9 MR. HOLLOWAY: But there have been billions of
10 dollars that have been set aside for high-level waste
11 storage, and some of that money has already been spent on
12 the Yucca Mountain facility. So what would be the
13 problem -- I realize the utility can't bear the whole burden
14 of SAFSTOR throughout the country at particular plants --
15 what would be the big problem in using those moneys for that
16 method considering it is as people have expressed probably
17 the safest method that can be utilized?

18 MR. MASNIK: That's a decision that's way above
19 me. I understand your point.

20 MR. HOLLOWAY: I'm talking about responsibility,
21 though.

22 MR. MASNIK: Would they be able to give that money
23 back to the utilities to build an onsite repository?

24 MR. HOLLOWAY: The utility might not even have
25 that site anymore. It might become a U.S.

1 Government-sanctioned high-level waste site with SAFSTOR
2 capability. I mean, I guess I don't understand why that we
3 have funds for this purpose that are not being utilized for
4 this purpose.

5 MR. MASNIK: Well, the Department of Energy is
6 having a difficult time licensing Yucca Mountain, and
7 that's --

8 MR. HOLLOWAY: Well, I'm not even talking about
9 Yucca Mountain. We have 105 plants in the U.S. that could
10 be ^{little} high-level waste facilities with the proper use of
11 manpower, responsibility, and funds.

12 MR. ^{Bellamy} ~~MASNIK~~: I don't think that option is out the
13 window. I can tell you that Maine Yankee is seriously
14 pursuing what's called an independent spent-fuel storage
15 facility onsite for specifically that purpose. They have an
16 advisory committee that I attend their meetings
17 approximately monthly to find out what's going on, and that
18 is right on the top of their consideration priority list,
19 and Maine Yankee will foot the entire bill for that
20 facility.

21 MR. HOLLOWAY: Would this be something that the
22 NRC would encourage?

23 MR. BELLAMY: Encourage is a hard term for us to
24 use. We will encourage the licensees -- we will encourage
25 the licensees to do whatever is necessary to protect public

1 health and safety. If they can convince us that an
2 independent spent-fuel storage facility is the best way to
3 protect public health and safety, we would support that.

4 I don't like the word "encourage," and I won't use
5 the word "encourage." If a licensee comes in and says we
6 think that the best way to protect public health and safety
7 is to completely decontaminate, decommission, and dismantle
8 this facility today and they can do it in a manner that
9 protects public health and safety, we would support that
10 decision.

11 MR. HOLLOWAY: So you're basing it on you have --
12 you're saying to the utility you have these two options,
13 demonstrate to us which option that can be used most
14 effectively in this case. You don't have a preferred
15 method.

16 MR. BELLAMY: Correct. That's correct.

17 MR. HOLLOWAY: There's nothing that you say this
18 is the way we want to go on this.

19 MR. BELLAMY: That's correct.

20 MR. HOLLOWAY: Okay.

21 MR. BELLAMY: I also -- you know, there have been
22 a lot of comments and discussions tonight on SAFSTOR versus
23 DECON. There are also significant differences in the
24 benefits as to whether there are additional operating
25 facilities and reactors at that site. So Haddam Neck is an

1 entirely different situation. If Haddam Neck decided that
2 they wanted to go to a SAFSTOR situation, we would have to
3 take a very hard look at how they're going to secure that
4 facility over the next X years until they decide that
5 SAFSTOR is not appropriate. Whereas here at the Millstone
6 Point you will have a continued very substantial security
7 force, guard force, health physics department, and those
8 sort of ancillary activities to support the work. So you
9 have to look at each situation differently, and there's a
10 significant difference in the benefits and advantages of
11 DECON versus SAFSTOR for the different types of reactors.

12 MR. HOLLOWAY: Because you have operating reactors
13 and you'll be able to maintain an operating plant license
14 within the boundaries of that facility.

15 MR. BELLAMY: I would characterize it more as you
16 have -- you have adequately trained staff there to provide
17 the support facilities for the reactor that might go into
18 SAFSTOR such as the situation at Indian Point 1, TMI-2, and
19 Peach Bottom 1.

20 MR. HOLLOWAY: Thank you.

21 MR. SHERIDAN: Paul and then -- well, Evan, go
22 ahead, and then Paul.

23 MR. ~~WOOLCOTT~~ ^{WOOLLACOT}: I'm Evan ~~Woolcott~~ ^{Woollacot}. I cochair the
24 Nuclear Energy Advisory Council. I'm speaking for myself,
25 just so you know that.

1 And I just want to emphasize a couple of things
2 that I heard. I had not planned on speaking. I think it
3 was Rosemary here brought up the item about a hearing after
4 decommissioning is done is not a hearing. And they talked
5 about taking legal action. I think it would be a lot easier
6 if the NRC took a look at that and scheduled hearings at the
7 proper time.

8 [Applause.]

9 AUDIENCE PARTICIPANT: Yes. Thank you.

10 MR. ~~WOOLCOTT~~ ^{Woollacot}: I think also that I should say that
11 I've been in the nuclear field since 1953, and when someone
12 says they have extensive experience in decommissioning, I
13 don't think that's true. We're all learning an awful lot.
14 One of the concerns I have is that the BWR is a direct-cycle
15 unit, and it gives off more radiation than the systems in a
16 pressurized water reactor. And I wonder if NRC has looked
17 at the differences between BWR and PWR and made some
18 decisions of what actions they might take.

19 MR. MASNIK: We did a series -- Mike Masnik
20 again -- we did a series of studies back in the eighties,
21 and some of those studies are continued -- actually
22 continued into the nineties -- where we looked at a
23 reference BWR and a reference PWR, and the study actually
24 went through the dismantlement, it looked at discrete work
25 packages, it looked at discrete components, and it made some

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1 predictions about what kind of exposure the work force would
2 get, what kind of costs would be incurred.

3 I'm happy to say that our experience to date, at
4 least at the PWR facilities, has been that the rates of
5 exposure are significantly lower than what we predicted. So
6 it seems like the industry is doing a better job at taking
7 the plants apart than we had predicted.

8 MR. ~~WOOLCOTT~~^{Woolcott}: Yes, I think that was my point. I
9 think as we get experience, there are different ways we can
10 clean these things up so it's more usable from the
11 standpoint of where you want to put it and that type of
12 thing.

13 And the other one, I know Rosemary won't like
14 this, but she has to listen to me every once in a while
15 anyway, and I hope and pray that the DOE and all the suits
16 will cause the DOE to do something to make a centralized
17 interim storage facility so we have one place to take care
18 of the high-level nuclear waste. I recognize the problem of
19 low-level, but high-level has got to go in one spot. And I
20 would say that whoever talked to the people in Nevada didn't
21 talk to the same people I talked to in Nevada, because the
22 people in Nevada say they want it. They'd like to have it.

23 Thank you.

24 MR. SHERIDAN: Paul?

25 MR. BLANCH: My name is Paul Blanch. I'm from

1 West Hartford, Connecticut. I'm a consultant to Northeast
2 Utilities, but I'm here speaking for myself.

3 About a year ago I attended a meeting at Yankee
4 Rowe, and it was a meeting similar to this. And I wasn't
5 going to speak tonight, but a point was made, and it's
6 bothersome to me. I reviewed the transcript of that Yankee
7 Rowe meeting a few months ago, and the Nuclear Regulatory
8 Commission at that time promised me an answer in writing to
9 my questions, and here we are a little over a year later,
10 and I still haven't gotten any response from the NRC.

11 But the basic question was that Yankee Rowe stated
12 that their site, returning it to greenfield, was going to be
13 for unrestricted use, and I ran the numbers, and they were
14 going to say -- they said that no area three feet above the
15 ground would be more than 10 microrad per hour, which if you
16 work that out to 8,760 hours a year, that turns out to be 87
17 millirem per year. And I asked how that equated to 25
18 millirem a year, which was their criteria. What I've
19 heard -- and by the way, that was for unrestricted, which is
20 defined as living there 24 hours a day, 365 days a year, and
21 potentially camping out and sleeping on the ground.

22 I think what I heard tonight by one lady was that
23 you've now changed the definition of unrestricted access to
24 be only eight hours a day? Is that what I heard?

25 AUDIENCE PARTICIPANT: Yes, you heard that.

1 MR. MASNIK: I don't believe we said eight hours a
2 day.

3 AUDIENCE PARTICIPANT: ^{During the (?)} The greenfield you did.

4 MR. SHERIDAN: Could you give these folks a chance
5 to respond, please?

6 AUDIENCE PARTICIPANT: Double-talk, buddy.

7 MR. ^{MASNIK} ~~BELLAMY~~: The estimate is based on the average
8 dose to a member of the critical group, and there are
9 certain assumptions made on the amount of time that this
10 individual spends on the site. Nobody, or very few people,
11 spend their entire 365 days a year on the ground. Now there
12 are people, you know, you move, you leave the location, and
13 the calculation is done assuming that the individual instead
14 of taking the worst-case condition takes an average
15 condition for the individual.

16 MR. BLANCH: Well, that is completely contrary to
17 what we were told. And if you look at the transcript at the
18 Yankee Rowe meeting, you'll clearly see it was based on
19 8,760 hours a year.

20 AUDIENCE PARTICIPANT: He was there.

21 MR. BLANCH: And I would also like to formally
22 request that you review that transcript, and I would like a
23 response in writing from the Nuclear Regulatory Commission
24 to that.

25 MR. MASNIK: Paul, we will give you --

1 MR. BLANCH: Because I think it's important.
2 We're talking -- and it doesn't matter to me, 15 millirem
3 doesn't hurt in my mind, 25, you know, I'm not worried about
4 that. But when you go from 25 to 87 and then it's just by
5 changing a little bit of words to the average individual,
6 that's bothersome. And sometimes people could actually camp
7 out on these sites. Who knows how they're going to be used.
8 But if it's unrestricted, it's got to be for the 8,760
9 hours, whatever it is.

10 The second question or statement I'd like to make
11 is there's a lot of confusion as to what regulations apply
12 during decommissioning. We're still applying the rules of
13 Part 50, which is for an operating nuclear powerplant. We
14 know that this is no longer an operating nuclear powerplant.
15 And I've actually talked to some of the Commissioners and
16 the EDO about this particular topic. And we need -- we, the
17 industry, and the NRC needs more clarification as to what
18 rules apply during the decommissioning.

19 For instance, there are a lot of areas of Part 50
20 that do apply and do not apply. There are areas of various
21 appendices to Part 50 like Appendix A. What applies as far
22 as Appendix A in the general design criteria? Appendix B,
23 quality assurance requirements. What quality assurance
24 requirements? And I'm not saying you need to increase when
25 we're decreasing, it's just that they need to be defined.

1 Utilities need to know what they're doing. Maine
2 Yankee is doing it differently than Connecticut Yankee. I
3 understand Maine Yankee essentially is doing it without an
4 Appendix B program. I'm not saying whether that's right or
5 wrong. It's just got to be defined so that the utilities
6 and the public know what is going on. And I think that has
7 to be done very quickly, before the Millstone
8 decommissioning starts, so that everyone knows what rules
9 are being played by. I'm not asking you to respond to that,
10 but it's just a statement right now.

11 Thank you.

12 [Applause.]

13 MR. MASNIK: Paul, we will provide you with a
14 written response to your question.

15 MR. BLANCH: Thank you.

16 MR. SHERIDAN: *Could you send a copy to my office, please?* ~~(X)~~
Mary?

17 MS. KUHN: Thank you for being here. I just have
18 a couple of quick questions, or comments too.

19 I would suggest that -- oh, I'm sorry, Mary Kuhn,
20 K-u-h-n, ^CPRC from Waterford -- Quaker Hill, actually.

21 In your presentations I understood also that or as
22 low as reasonably achievable, what I understood you to say
23 was 25 millirems a year or as low as reasonably achievable,
24 which sounded like a big loophole to me. And I think that
25 if you have any printed material, it would be well to

~~(X)~~ MR. MASNIK: Sure.

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1 clarify that, because it was very confusing.

2 MR. BELLAMY: I'm sorry, could you state -- could
3 you tell me again what the confusion is?

4 MS. KUHN: Well, you say 25 millirems a year or as
5 low as reasonably achievable.

6 MR. BELLAMY: I beg your pardon. If I said or, I
7 misspoke -- it's "and."

8 MS. KUHN: Um-hum.

9 MR. BELLAMY: It's 25 millirem per year and as low
10 as reasonably achievable. It is not an "or" statement, it
11 is an "and" statement. The licensee must satisfy both
12 criteria independently.

13 MS. KUHN: Um-hum.

14 MR. BELLAMY: So if I stated "or," I misspoke and
15 I misled you. But I meant to say "and."

16 MS. KUHN: Um-hum.

17 MR. BELLAMY: They have to satisfy both.

18 MS. KUHN: Or you could say or as low as
19 reasonably achievable below --

20 MR. BELLAMY: Great. Thank you.

21 MS. KUHN: 25 millirems a year.

22 MR. BELLAMY: Great.

23 MS. KUHN: Yes. The spent fuel pool comes under
24 the DOE? Is that correct? Will that be still where it is
25 now?

1 MR. BELLAMY: The answer is no. The spent fuel
2 pool remains under NRC regulatory jurisdiction here at the
3 site.

4 MS. KUHN: Um-hum.

5 MR. BELLAMY: The Department of Energy is required
6 by law to generate and have a spent-fuel repository.

7 MS. KUHN: Oh, I see.

8 MR. BELLAMY: Offsite, and the facility that
9 you've heard mentioned is Yucca Mountain.

10 MS. KUHN: Um-hum. Do you have any concerns about
11 this spent-fuel pool? Well, it's above ground now. Is that
12 correct?

13 MR. BELLAMY: The answer is yes, it's above
14 ground. We inspected it today, this afternoon. We walked
15 away with no concerns that said I have to do anything about
16 it or any of the NRC staff has to do anything about it
17 today. We took a look to ensure that there was a
18 leak-detection system. So it's a difficult question to ask,
19 do you have any concerns. We have a concern about a
20 leak-collection system to make sure that if there is a leak
21 it can be detected. But it's not a significant concern.

22 MS. KUHN: I feel a little uneasy with that
23 spent-fuel pool myself because I understand that the
24 containment of the reactor was so strong that it could take
25 an airplane crashing into it. And then I always thought

1 that well, what if it didn't crash into the reactor, what if
2 it crashed into the spent-fuel pool, what ~~might~~^{would} happen to
3 that? And I once asked an NRC person, and they said well,
4 that would be the worst possible thing, because you would
5 lose your coolant. And I take it you would lose your
6 coolant reasonably quickly, too, or at least you could. So
7 I have always felt a little uneasy with that there.

8 MR. MASNIK: The spent-fuel pool is in the
9 containment at Millstone 1.

10 MS. KUHN: Um-hum.

11 MR. MASNIK: Okay? So it's inside that structure.

12 MS. KUHN: The same containment that the reactor's
13 in?

14 AUDIENCE PARTICIPANT: Don't lie to her. It's not
15 inside. It's got a regular roof over the top of it just
16 like we've got here. It's not in containment.

17 MR. BELLAMY: It's inside the reactor building.
18 It is not inside the same structure that the -- the
19 containment vessel and the reactor have a separate structure
20 inside the reactor building. The spent-fuel pool is in the
21 reactor building. That's a correct clarification.

22 MS. KUHN: Thank you. I also understood from an
23 NRC person that the billions of dollars that were set aside
24 for the permanent storage are no longer available, that they
25 had been -- I think one gentleman said it was put to use to

1 decrease the budget deficit or something like that. That's
2 just my understanding.

3 MR. SHERIDAN: That's correct.

4 MS. KUHN: That is correct. The other point that
5 I would like to make hopefully that the NU is a little
6 bit -- has their priorities a little bit more in order than
7 you think they do, because I notice that you said that if
8 the high-level radioactive waste is kept on site, then the
9 company doesn't -- but the plant is closed, decommissioned,
10 it doesn't have a lot of incentive for the company to spend
11 money. And I would like to think that safety is the first
12 incentive of this company, but I guess the NRC doesn't
13 necessarily think so. I just wanted to make that comment.

14 Thank you very much.

15 [Applause.]

16 MR. SHERIDAN: Are we all set with first-time
17 speakers?

18 MR. MANGIAGLI: I have a couple of comments I'd
19 like to make. You mentioned one of the very good reasons
20 for the rapid dismantlement of the reactors, the experienced
21 work force that's on site that is familiar with the reactor,
22 so therefore they're best suited to take it apart. But yet
23 Siemens has done the chemical decontamination at Connecticut
24 Yankee, and Connecticut Yankee is taking bids from
25 contractors to rip the steam generators out, to rip the

1 vessel out, the pressurizer, to do all this work. They're
2 looking to take the lowest bid they can get. Maine Yankee
3 has done the same thing. Maine Yankee has used contractors.
4 So this thing about the experienced work force, what happens
5 to the experienced work force, totally shafted for
6 lower-bidding contractors.

7 So, you know, this issue of the experienced work
8 force being on site is pretty weak when they're being laid
9 off.

10 MR. MASNIK: What we find at most plants is that
11 there's a significant reduction in the number of full-time
12 personnel, that it gets down to about 150 to 200
13 individuals, and these are the people that the licensee
14 maintains on site during the DECON activity. Now it is true
15 that they go out and contract for various evolutions and
16 operations, for example, full-^{flush}~~fledged~~ DECON. Or if they're
17 removing major components, they go out and they hire a heavy
18 lift operator. But that work is supervised and overseen by
19 the utility personnel.

20 MR. MANGIAGLI: Something I'd like to say on the
21 Yucca Mountain issue, the high-level waste issue, Mr.
22 Sheridan, you've worked very hard to see that the interim
23 storage bill gets passed, the mobile Chernobyl bill. And
24 just to remind everybody that's thinking that Yucca Mountain
25 is like this wonderful thing that's going to save us all

1 from our high-level waste, it'll only hold a third of the
2 high-level waste that we will be generating, that we need to
3 be building two more Yucca Mountains like right now, because
4 the volume is not there.

5 One of the site criteria boundaries for Yucca
6 Mountain was that there was to be zero water infiltration
7 for 1,000 years. They found radioactive chlorine in Yucca
8 Mountain that could have only come from the bomb tests.
9 They found it down in their trenches where they're digging.
10 This is 50 years' water travel down to Yucca Mountain. They
11 found the plate movement underneath Yucca Mountain to be ten
12 times greater than they thought. Water infiltration, they
13 found that there's hairline fractures, subterranean hairline
14 fractures from all the underground bomb testing. That whole
15 area is just filled with hairline fractures. Yucca Mountain
16 is falling on its face, and everybody knows it. Everybody
17 knows it.

18 To start transporting all of our high-level waste
19 to Yucca Mountain will take 30 years at a shipment a day.
20 The Department of Energy estimates 15 accidents a year at
21 that kind of volume of traffic. The casks are not even
22 built yet. We will be shoving waste into Yucca Mountain
23 that will be irretrievable, and it will have to be
24 safeguarded for 240,000 years. This is a geological time
25 frame. This isn't decades or centuries. We could have a

1 damn ice age by then. There's no telling what's going to
2 happen.

3 And you're going to shove this waste into that
4 mountain where it's irretrievable so 30 years from now we
5 have a better solution, 50 years, 1,000 years from now we
6 could have a better solution, and that waste will be
7 irretrievable. This is a very irresponsible, short-sighted,
8 illusion that the utility is creating and that the NRC is
9 backing. And it's not for the people, it's for the
10 liability of this very deadly, lethal, long-lived
11 radioactive waste. And you better start thinking about the
12 people, because we're getting fed up with getting the short
13 end of this "too cheap to meter" friendly atom. It's full
14 of lies. The whole industry is based on lies.

15 [Applause.]

16 MR. SHEPIDAN: Next, Rosemary.

17 MS. BASSILAKIS: Rosemary Bassilakis up again.

18 First of all, I just wanted to comment on the
19 overhead that the NRC presented. You said that there were
20 three nuclear reactors that completed decommissioning
21 already. Shoreham, which operated for how many hours, Mr.
22 Masnik? About 48 hours?

23 MR. ^{Bellamy}~~MASNIK~~: I don't know how many hours it
24 operated, but it did not operate above 5 percent rated
25 power.

1 MS. BASSILAKIS: Right. So it's not too
2 incredibly radioactive of a challenge. Fort St. Vrain, what
3 kind of nuclear reactor was that?

4 MR. MASNIK: High-temperature gas reactor.

5 MS. BASSILAKIS: Right. Is it true it used helium
6 to cool the fuel rods?

7 MR. MASNIK: The answer is yes.

8 MS. BASSILAKIS: Because it's my understanding
9 that helium doesn't become radioactive, which is actually a
10 very nice feature, in that you'll have less contaminated
11 piping.

12 You also mentioned another nuclear reactor,
13 Pathfinder? I've never heard of it. Can you tell me where
14 and how big that reactor is?

15 MR. MASNIK: It was a small demonstration reactor
16 built a number of years ago.

17 MS. BASSILAKIS: Okay. So those are the three
18 reactors that we've completely decommissioned. That's not a
19 huge track record, and we are definitely still in the
20 experimental stage.

21 Now Jen Gutshall had raised the issue of how many
22 boiling water reactors have been decommissioned. It's my
23 understanding that they're most in SAFSTOR, and that the Big
24 Rock Point, ¹⁵ ~~at~~ the first boiling water reactor right now ~~and~~
~~they're going to decommissioning.~~ ^{undergoing} Is that true?
25

1 MR. MASNIK: Big Rock Point is in active
2 dismantlement.

3 MS. BASSILAKIS: Right. That's the first one.
4 And so if Millstone Unit 1 undergoes decommissioning, it
5 would be the second boiling water reactor to undergo rapid
6 dismantlement.

7 MR. MASNIK: If they choose DECON, it would be the
8 second.

9 MS. BASSILAKIS: Okay. Well, I mean if they do
10 choose rapid dismantlement, I'll look over this side of the
11 table, because this is the licensee's side of the table. Is
12 that true?

13 ^o
[MR. MASNIK] Correct.

14 MS. BASSILAKIS: Well, one of the concerns we
15 have -- of course we believe in SAFSTOR anyway. Sal
16 Mangiagli pointed that out pretty clearly, that that's the
17 most reasonable stance to take. But if you were to undergo
18 DECON, you would be just the second boiling water reactor to
19 undergo DECON, but also, you would have to juggle -- you
20 would have to juggle dismantling Unit 1, trying to restart
21 Unit 2, and keeping Unit 3 up to high enough standards to
22 keep operating. I would say that's far more than you can
23 handle at this point in time, and that you really should go
24 for SAFSTOR. It's in everybody's best interest, not just
25 ours, but yours as well.

1 As far as spent fuel management goes, I think
2 everybody needs to know that we have no say in how the spent
3 fuel is managed. We as community members have no say
4 whether or not it stays in the pool, whether or not it goes
5 in dry casks, anything. And we know this from experience,
6 because CAN -- Citizens Awareness Network -- wanted to be
7 involved with the spent-fuel management. We had questions,
8 concerns that we wanted to raise. And when we first went to
9 a prehearing with the NRC, we were told that during the
10 license termination plan hearing, you will be able to
11 address that issue. It's premature at this point in time.

12 Well, on January 26 of this year we went before
13 the Atomic Safety and Licensing Board, and we were told that
14 we cannot discuss fuel management at all, that that utility
15 can put those -- the fuel rods in dry casks, they can take
16 out the fuel pool, they can do whatever the heck they
17 wanted, and we don't have a say. And we consider this a
18 meltdown in democracy. Again, this is wrong. These are
19 issues that vitally affect us and our communities, and we
20 need to have a voice. We shouldn't need to hire lawyers to
21 get a voice, we should have a voice.

22 I guess I'll just -- oh, two more things. One is,
23 you know, Jen Gutshall raised the issue of who the standard
24 was, whether or not it was 150 some odd men or whether the
25 standard was a child. And the NRC likes to look at it as

1 far as well, you know, we really don't need to protect the
2 worst-case scenario, and we don't believe this is a
3 worst-case scenario. Having a child on site 24 hours a day,
4 365 days a year, is reasonable. Kids don't go to school
5 until they're five. Before then, they're home with their
6 mom for the most part. And we want them to be protected.
7 And this is one of the reasons why CAN is trying to get a
8 hearing on the license-termination plan. We believe NRC
9 needs to take another hard look at their regulation. It is
10 the children we need to protect.

11 And this is important, because unrestricted use
12 means unrestricted use. It means a family can build their
13 home there and raise their family there. Someone can open
14 up a day-care on Millstone Point. It sounds kind of absurd,
15 but it will happen. It will happen. It might not be for 60
16 years or 70 years or 80 years, but it will happen. And what
17 we -- the things we decide today will impact future
18 generations. And this is so incredibly important. We need
19 to be as protected as possible so we can be assured that
20 future generations will be safe.

21 And lastly, as far as a, you know, the issue of
22 the fuel pool was raised at Millstone Unit 1, and I recalled
23 that the fuel rods in that fuel pool, there's a bunch of
24 them that aren't seated properly. And it keeps getting
25 pushed off and pushed off into the future as far as when

1 those unseated fuel rods are going to be addressed, and I'm
2 just wondering, are they going to be addressed in the PSDAR,
3 are they going to be addressed in future NRC inspections?
4 When are we going to address this very fact that the fuel
5 rods aren't seated where they're supposed to be seated? And
6 maybe -- I don't know, maybe you guys can't answer that,
7 because it's not really your jurisdiction.

8 MR. BELLAMY: Well, I can't answer it, but I'd
9 like to get a little more details of exactly what you mean
10 by unseated, and check with my staff and find out exactly
11 what the situation is.

12 MS. BASSILAKIS: Ron, please do, because they have
13 a whole bunch of unseated fuel rods. They don't know why.
14 They don't know -- because there's tools hanging down there.

15 MR. ~~REYNOLDS~~^{Bellamy}: Unseated means that the rack slot
16 that they're designed to be in in the spent-fuel pool
17 they're not --

18 MS. BASSILAKIS: Right.

19 MR. ~~REYNOLDS~~^{Bellamy}: Geometrically where they're
20 supposed to be. That's your definition of "unseated"?

21 MS. BASSILAKIS: Yes.

22 MR. ~~REYNOLDS~~^{Bellamy}: I'll check it out.

23 MS. BASSILAKIS: Good.

24 MR. SHERIDAN: Thank you.

25 Anyone else who would like to speak?

1 Paul.

2 MR. BLANCH: Tony, I just want to read something
3 from the transcript here.

4 I'm Paul Blanch again. And just related to our
5 followup from my previous statement, Rosemary gave me a copy
6 of the transcript from the meeting of Yankee Rowe. And this
7 is a statement, the criteria that was being used at Yankee
8 Rowe. And they were committing to 15 millirem a year, and
9 I'm just going to read a couple of lines here from the
10 transcript.

11 When people establish a home on site, they plant a
12 garden and they eat vegetables that are grown in a garden,
13 and we also assume that they put a well on site and drink
14 the ground water that's on site. And when you add all the
15 radiation^{exposure} from the exposure from the ground, from any
16 exposure associated with eating the vegetables or drinking
17 the water, the total dose for that must be less than 15
18 millirem per year. That doesn't sound like unrestricted --
19 that is unrestricted access, and I would hope that -- now
20 that is the criteria you're applying, and not eight hours a
21 day. It sounds like someone has made a major, major policy
22 change to increase the allowable exposure from 25 to 87
23 millirem per year.

24 Thank you

25 MR. SHERIDAN: I'd like to thank all of you. This

1 is the first of what I hope to be several meetings that we
2 will have to discuss this matter. It's very, very
3 important. I really appreciate the comments that everyone
4 has made. There are two or three items that I just want to
5 remind NRC about as we leave. One is there was a question
6 asked that I wasn't clear on the answer, and that is if
7 there was an answer, that is, how much waste is left in the
8 Unit 1 pool. I think we need an answer to that.

9 The second, there was some question about a
10 request -- written request on the clarification of the 20 ^{mr}~~M~~
11 or lower issue. That came up several times, and I think it
12 would be appropriate if we could put that in writing so that
13 everybody has a clear understanding of that.

14 And the third matter is a letter for the record
15 from Dr. Wiles on the radiation that you requested.

16 Again, thank you very much, and I hope we can
17 continue this rapport and help this process along. We all
18 want to do what's right here.

19 MR. WHEELER: As was mentioned at the beginning,
20 the NRC staff will stick around after the meeting to make
21 ourselves available to continue further discussions with
22 anyone who chooses to do so. Thank you.

23 [Whereupon, at 9:10 p.m., the meeting was
24 concluded.]
25

REPORTER'S CERTIFICATE

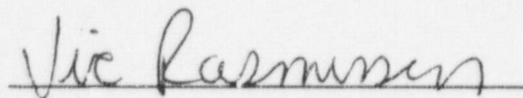
This is to certify that the attached proceedings
before the United States Nuclear Regulatory Commission in
the matter of:

NAME OF PROCEEDING: MILLSTONE UNIT 1,
 DECOMMISSIONING PUBLIC MEETING

CASE NUMBER:

PLACE OF PROCEEDING: Waterford, CT

were held as herein appears, and that this is the original
transcript thereof for the file of the United States Nuclear
Regulatory Commission taken by me and thereafter reduced to
typewriting by me or under the direction of the court
reporting company, and that the transcript is a true and
accurate record of the foregoing proceedings.



Vic Rasmussen

Official Reporter

Ann Riley & Associates, Ltd.



*United States
Nuclear Regulatory Commission*

PUBLIC MEETING

NRC DECOMMISSIONING PROGRAM

**February 9, 1999
Waterford Town Hall
Waterford, Connecticut**

*Louis L. Wheeler
Senior Project Manager
Non-Power Reactor and Decommissioning Project Directorate
Division of Reactor Program Management
Office of Nuclear Reactor Regulation*



United States
Nuclear Regulatory Commission

NRC STAFF PRESENT

Office of Nuclear Reactor Regulation

Dr. Seymour H. Weiss, Project Director
Dr. Michael T. Masnik, Section Chief
Mr. Phillip M. Ray, Project Manager
Ms. Etoy Hylton, Licensing Assistant
Ms. Patricia Milligan, Health Physicist
Mr. William C. Huffman, Project Manager
Mr. Stephen Dembek, Project Manager
Mr. Sam Nalluswami, Project Manager

Region I

Dr. Ronald R. Bellamy, Branch Chief
Mr. Paul C. Cataldo, Millstone Resident Inspector
Mr. Neil A. Sheehan, Public Affairs Office

Office of the General Council

Ms. Ann P. Hodgdon, Senior Attorney

Office of Nuclear Materials Safety and Safeguards

Mr. James C. Shepherd, Project Manager



OUTLINE

- **What is/is not Decommissioning**
- **NRC Focus**
- **Decommissioning Alternatives**
- **Decommissioning Process Requirements**
- **Post-Shutdown Activities Report**
- **Additional Restrictions**
- **Financial Considerations**
- **The License Termination Plan**
- **National Perspective**
- **NRC Staff Points of Contact**
- **NRC Inspection Program for Decommissioning Power Plants**



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WHAT IS DECOMMISSIONING?

Decommissioning is defined as:

The removal of a facility safely from service and the reduction of residual radioactivity to a level that permits release of the property and termination of the license.

WHAT IS NOT DECOMMISSIONING?

Decommissioning does not include:

- **Non-radiological cleanup/demolition**
- **Site restoration activities**
- **Spent fuel management**



NRC FOCUS

The NRC focus is on the removal of radiological hazards

- **Removal of the facility from service**
- **Reduction of radioactive materials to a level that allows site release**
- **Detailed final radiological survey**
- **License termination**



ACCEPTABLE ALTERNATIVES

- **DECON -- Decontaminate and dismantle**
- **SAFSTOR -- Long term storage followed by decontamination and dismantlement**
- **Combination of both**



INITIAL STEPS IN THE PROCESS

- **Licensee Certifications**
 - **Operations permanently ceased**
 - **Fuel removed from the reactor vessel**
 - **Certifications are irreversible**
- **Operating license no longer authorizes fuel loading**
- **Post-Shutdown Decommissioning Activities Report**
- **Site-specific Cost Estimate**



POST-SHUTDOWN DECOMMISSIONING ACTIVITIES REPORT (PSDAR)

The PSDAR is required to provide:

- **A description of planned decommissioning activities**
- **A schedule for accomplishment of planned activities**
- **An estimate of expected costs**
- **Reasons for concluding that environmental impacts are bounded by previously issued environmental impact statements**

The NRC staff will hold a public meeting in the vicinity of the site.

The PSDAR is a summary description.



FINANCIAL CONSTRAINTS

- **Limit of 3% of the trust fund for decommissioning planning**
- **Limit of 20% prior to receiving the site-specific cost estimate, provided the PSDAR has been issued**
- **Full access not permitted until site-specific cost estimate is issued**
- **NRC constraints do not usurp state regulatory constraints**



ADDITIONAL RESTRICTIONS

The licensee is prohibited from performing any decommissioning activity that:

- **Forecloses the release of the site for possible unrestricted use; or**
- **Results in significant environmental impacts not previously considered; or**
- **Results in there no longer being reasonable assurance that adequate funds will be available.**



LICENSE TERMINATION PLAN

The plan will describe:

- **Site characterization**
- **Identification of remaining dismantlement activities**
- **Plans for site remediation**
- **Detailed plans for the final radiation survey**
- **Description of the end use of the site if restrictions are imposed**
- **Updated site-specific cost estimate of remaining costs**
- **Supplement to the Environmental Report describing any new information**



LICENSE TERMINATION PLAN (continued)

- **Plan receipt will be noticed in the *Federal Register* and the plan will be made available for public comment**
- **Opportunity for a hearing on the plan will be given**
- **NRC will also hold a public meeting**
- **The plan will be approved by issuance of a license amendment**
- **Licensee continues to decommission the site and perform a site radiation survey**
- **NRC may perform confirmatory surveys**
- **The license is terminated if the license termination plan was followed and the site meets the release criteria**



DECOMMISSIONING PROJECTS

21 power reactors are decommissioning

- **3 facilities completed**
Pathfinder, Shoreham & Fort St. Vrain
- **5 facilities now being dismantled**
Trojan, Yankee Rowe, Haddam Neck,
Big Rock Point, Maine Yankee
- **12 facilities in long-term storage**
TMI-2, Dresden 1, Fermi 1, VBWR,
La Crosse, Peach Bottom 1, Rancho
Seco, San Onofre 1, Indian Point 1,
Zion 1, Zion 2, Humboldt Bay
- **1 to be determined - Millstone 1**



United States
Nuclear Regulatory Commission

POINT OF CONTACT FOR LICENSING ACTIONS

**U.S. Nuclear Regulatory Commission
ATTN: Louis L. Wheeler
Mail Stop: O9-D19
Washington, DC 20555-0001**

**Telephone: (800) 368-5642 (NRC operator)
(301) 415-1444**

E-Mail: DXW@NRC.GOV



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**MILLSTONE 1 DECOMMISSIONING
MEETING**

**WATERFORD, CONNECTICUT
February 9, 1999**

***Ronald R. Bellamy, PhD.
Chief, Decommissioning & Laboratory Branch
Division of Nuclear Materials Safety
USNRC Region I***



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- **Region I will manage the inspection program.**
- **For a station with operating and permanently-shutdown reactors, a mix of resident and regional specialists will perform the inspection activity.**
- **Present resident effort is periodic (approximately monthly) tours of Unit 1, attendance at planning meetings approximately weekly, available as necessary for interaction with the licensee. Also keeps the regional office and headquarters staff aware of developments.**



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- **Region I has been involved in a number of ongoing reactor decommissioning projects**
- **Yankee Rowe is completing dismantlement and decontamination**
- **Maine Yankee has completed site characterization and has selected a Decommissioning Operations Contractor. A spent fuel nuclear island has been established and major dismantlement and decommissioning efforts are expected to begin Spring 1999.**



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- Haddam Neck is continuing its characterization effort and is completing modifications for a spent fuel nuclear island. Major dismantlement and decontamination efforts are expected to begin mid 1999.
- Peach Bottom 1 is in a long-term storage SAFSTOR condition
- Three Mile Island 2 is in a long-term SAFSTOR condition
- Indian Point 1 is in a long-term SAFSTOR condition



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- For reactors in SAFSTOR, the inspection effort is a periodic inspection (approximately annually) to verify the condition of the facility and that degradation has not occurred, supplemented by frequent observations by the resident staff
- For reactors in dismantlement and decontamination, a structured inspection program is established, based on the activities at the site.
- Areas of inspection are:
 - Organization, Management and Cost Controls
 - Safety Reviews, Changes and



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Modifications

- **Self-assessments, Audits, Corrective Actions**
- **Decommissioning Performance, Status**
- **Preparations for Reactor Fuel Handling**
- **Reactor Fuel Handling**
- **Maintenance and Surveillance**
- **Cold Weather Preparations**
- **Spent Fuel Pool Safety**
- **Occupational Radiation Exposure**
- **Final Surveys**
- **Radwaste Treatment, Effluents, Environmental Monitoring**
- **Solid Radwaste Management and Transportation**



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- Evaluation of Emergency Preparedness
 - Physical Security
 - Public involvement will continue. Inspection reports will continue to be made available, staff will attend meetings as appropriate.
 - The resident staff can be contacted at
- 860-447-3170**
- The Region I office can be contacted at

610-337-5000 or 800-432-1156.

Millstone Unit 1 Decommissioning Planning Status

**NRC Public Meeting
February 9, 1999**

**Frank C. Rothen
*Vice President - Site Services***

Northeast Nuclear Energy

Current Activities

- ◆ Safely maintain the unit
- ◆ Request removal of NRC regulatory requirements that no longer apply
- ◆ Support Unit 2 Restart
- ◆ Evaluate and select effective decommissioning option

Focus Continues To Be On Safe Operations

- ◆ Overall philosophy is to conduct all work in a safe, planned manner
- ◆ Worker safety continues to be our number one priority
- ◆ Safety performance at Unit 1 has steadily improved over the last three years
- ◆ Unit 1 was recently recognized for this achievement with the NU President's Award

Negotiations are Underway to Sell New Fuel Assemblies

- ◆ Comprehensive reviews for the new fuel transfer and shipment are in progress
- ◆ Schedule is under assessment

Offsite Radiological Monitoring

- ◆ Responsive to community concerns
- ◆ Learning from industry experiences
- ◆ Independent surveys by State of Connecticut and NRC confirm NU results

Offsite Radiological Survey Locations

- ◆ **Waterford ball fields**
- ◆ **Harkness State Park**
- ◆ **Waterford Landfill**

Surveys Included:

- ◆ **Direct radiation measurements**
- ◆ **Field radiation scans**
- ◆ **Soil sample analyses**

**No Millstone-produced radioactivity
detected at any of the
offsite survey locations.**

Year 2000 Readiness At Millstone Unit 1...

- ◆ Station goal is to be Y2K ready by 7/1/99
- ◆ No Unit 1 items will need remediation
- ◆ Spent fuel storage systems not affected
- ◆ Contingency planning activities have begun

Regulatory Update

- ◆ License amendment request submitted to reflect regulatory requirements in a defueled status
- ◆ Additional technical specification revisions to reflect defueled status in final NU review

Planning for Decommissioning

- ◆ Reviewing options with two operating plants on site
- ◆ Evaluating use of Decommissioning Operations Contractor (DOC)
- ◆ Post Shutdown Decommissioning Activities Report (PSDAR) to be submitted later this year

Major Milestones

- | | |
|--------------------------------------|--------------|
| ◆ Unit 1 Shutdown | 11-4-95 |
| ◆ 50.82 Letter Submitted | 7-21-98 |
| ◆ NU Public Meeting | 12-2-98 |
| ◆ NRC Public Meeting | 2-9-99 |
| ◆ Key Regulatory Submittals | 12/98 - 7/99 |
| ◆ Establish Decommissioning Schedule | In-progress |
| ◆ Submit PSDAR | 3rd. Quarter |
| ◆ Decision on Use of DOC | 12/99 |



STATE OF CONNECTICUT
DEPARTMENT OF ENVIRONMENTAL PROTECTION



January 21, 1999

The Honorable Thomas A. Sheridan
First Selectman
Town of Waterford
15 Rope Ferry Rd.,
Waterford, CT 06385

RECEIVED
SELECTMAN'S OFFICE
93 JAN 25 AM 11:06

Dear Mr. Sheridan:

I would like to take this opportunity to share with you some information regarding activities conducted by the Department of Environmental Protection's Division of Radiation (DEP-DOR). These activities center around the radiological survey of the Millstone Ballfields, and some pertinent information regarding thermoluminescent dosimeters that were utilized to measure exposure to ionizing radiation.

Millstone Ballfields. The Division conducted an in depth radiological survey of the following ballfields: Rolf, Rotary, Patterson, Babe Ruth, Spera, Greco, Mullins and the Hall Playground Area. The DEP-DOR collected 412 surface soil samples composited into 103 containers for analysis. 115 subsurface and 17 background samples were collected and analyzed. All soil samples were collected, stored and transported under the DEP-DOR agency chain of custody guidelines. The samples were analyzed for alpha, beta and gamma radiation utilizing established analysis techniques by an independent certified laboratory. The results of the soil sample analysis yield naturally occurring radioactivity and the presence of isotopes related to weapons fall out which can be considered in both instances to be "background". The DEP-DOR also conducted direct measurements to detect gamma radiation. These direct radiation measurements involved the use of sodium iodide (NaI) type detectors. These detectors were utilized for surface area scans, intermittent surface level direct measurements and intermittent waist level direct measurements. The entire surface area of each of the seven ballfields and playground were surveyed. Waist and ground level measurements were accomplished approximately every ten feet. Numerous areas were discovered that had variations in background radiation levels up to five times background. All of these anomalies were attributed to rocks, stones or gravel which contain higher concentrations of naturally occurring radioactivity than surficial material. The remaining areas yielded results consistent with background radiation levels in Southeastern Connecticut.

Environmental Monitoring Program. Until its termination in January 1998 the DEP-DOR participated in an Cooperative Agreement with the U.S. Nuclear Regulatory Commission (U.S. NRC). This agreement tasked the DEP-DOR to collect various environmental media to be analyzed for radioactivity content at the State Department of Health Laboratory. Additionally,

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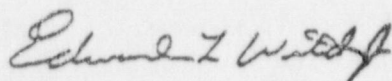
Date

Sheridan Memo

DEP-DOR was responsible for the placement and retrieval of thermoluminescent dosimeters (TLD's) that were provided by the NRC on a quarterly basis. These dosimeters were positioned in a concentric pattern around the Haddam neck and Millstone Point facilities. The NRC utilized the "UD 800 series" Panasonic TLD's which afford excellent energy resolution throughout the range of expected exposures that members of the general public could possibly be exposed to during an offsite release of radioactivity during a nuclear power plant incident. The measured radiation levels are reported in units of milliroentgen. They are quarterly gross exposures and include exposures received while the dosimeters were in transit as well as exposures received in the field. A control TLD, accompanies the TLD shipment during transit and was stored in a low background area while the other TLD's were in the field. The results of the quarterly exposure was published by the NRC. The DEP-DOR was responsible for the emplacement of retrieval of these TLD's. Additionally, the DEP-DOR received from the utility various environmental samples that were analyzed by the Department of Health radiochemistry laboratory. The results of the analysis of these samples were reported to the NRC by the DEP-DOR in an annual report.

I trust that this memo has provided you with some pertinent information with regards to activities that the DEP-DOR has performed in and around the Millstone Station area. If you need further clarification on any of these issues, or if I can provide you with further information please feel free to contact me at telephone number (860) 424-3029.

Sincerely,



Edward L. Wilds Jr. Ph.D
Director
Division of Radiation
Bureau of Air Management