

UNITED STATES OF AMERICA
 NUCLEAR REGULATORY COMMISSION

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PUBLIC MEETING FOR FOLLOW UP DISCUSSIONS OF SELECTED
 TOPICS FOR THE REVIEW OF EMERGENCY PREPAREDNESS
 REGULATIONS AND GUIDANCE FOR COMMERCIAL NUCLEAR
 POWER PLANTS

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FRIDAY,
 MAY 19, 2006

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The Committee met in the Georgetown Room
 of the Rockville Ramada, 1775 Rockville Pike,
 Rockville, Maryland, at 8:15 a.m., Kevin Williams,
 facilitator, presiding.

PRESENT:

PAUL GUNTER	Nuclear Information and Resource Service
MARY LAMPERT	Pilgrim Watch
ERIC LEEDS	Nuclear Regulatory Commission
NADER MAMISH	Nuclear Regulatory Commission
PATRICIA MILLIGAN	Nuclear Regulatory Commission
PHILLIP MUSEGAAS	Riverkeeper, Inc.
JIM RICCIO	Greenpeace
STACEY ROSENBERG	Nuclear Regulatory Commission
DAN WILCOX	Department of Homeland Security

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P-R-O-C-E-E-D-I-N-G-S

(8:14 a.m.)

1
2
3 MR. WILLIAMS: All right. Good morning.
4 Can you hear okay? We're going to go ahead and get
5 started here. I want to kick it off and just let you
6 know my name is Kevin Williams. I'll be facilitating
7 the meeting. This is going to be a Category Two
8 meeting between the non-governmental organizations and
9 the NRC, and the purpose of this meeting is to solicit
10 information in an information exchange format such
11 that we can get input and thoughts as we move forward
12 to the review of emergency planning, or emergency
13 preparedness, regulations and guidance.

14 As stated in the agenda, and if everybody
15 -- if you don't have a copy of the agenda, the agenda
16 is back on that table there. The public will have an
17 opportunity to provide questions as stated in the
18 agenda, and those questions are directed to the NRC
19 staff.

20 Now, as we go through here, we really want
21 to emphasize that this is an information exchange.
22 We're reaching out to the non-governmental
23 organizations such that we can improve our processes,
24 we can improve dialogue, and we're trying to see where
25 change is necessary.

1 To go over the ground rules, what we want
2 to talk about is we're here to discuss EP regulations
3 and guidance. That's what we do. That's what we
4 know. Anything outside of the EP regulations and
5 guidance, we're not prepared to talk about, but what
6 we will do is we can put a parking lot issue, get you
7 to the appropriate staff member that can address your
8 concern.

9 If one person is talking, and you have a
10 comment, you want to address that, you know, just flip
11 your name tin up like this. If Jim wants to talk, he
12 can just put his tin up there, and I'll get to him.

13 In the interest of time, I may have to cut
14 you off. I don't mean to be rude or anything of that
15 nature, but we need to make sure that everybody at the
16 table gets an opportunity to share their opinions and
17 their thoughts.

18 We want to be constructive. We want to
19 focus on the technical aspects of your position. We
20 want you to shepherd one another such that we can have
21 meaningful and purposeful discussion as we move
22 through the day. That's pretty much the ground rules.

23 Now, anybody in the audience or at the
24 table, if you have a cell phone, I would prefer that
25 you turn it off. I'm a chief violator, but we want to

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1 make sure that we don't get any -- interrupt anybody
2 as we flow throughout the day.

3 All right, what I want to do now is just
4 take an opportunity to introduce the people that are
5 at the round table here, and then we can move forward.
6 We have Phillip Musegaas. He's a policy analyst for
7 Riverkeeper.

8 We have Mary Lampert, who is the director
9 of Pilgrim Watch, Jim Riccio, who is a nuclear policy
10 analyst for Greenpeace, Paul Gunter, who is the
11 reactor watchdog project director for the Nuclear
12 Research Info Services, and we have Stacey Rosenberg
13 from the NRC, Nader MAMISH, the director of emergency
14 preparedness, Eric Leeds, the Director of the Division
15 of Preparedness and Response, Patricia Milligan. We
16 have Dan Wilcox from DHS and is here to give us the
17 DHS perspective on the topics as we move throughout
18 the day.

19 So I look forward to an opportunity of --
20 did I miss somebody? No? Look forward to an
21 opportunity of excellent dialogue, excellent
22 information exchange, and at this time we will turn it
23 over to Nader Mamish.

24 MR. MAMISH: Well, good morning, and thank
25 you, everybody, for joining us. At the last meeting

1 we had last September, August, we received some good,
2 honest feedback regarding our review of EP
3 regulations. As Kevin mentioned earlier, our goal
4 today is to use the time together to briefly review
5 what we heard at the last meeting and to hear some
6 more about the issues that you believe have the
7 greatest priority.

8 As you know, we've engaged many
9 stakeholders in the review of rules and regulations,
10 including state and local governments and the
11 industry, who have presented thoughtful perspectives
12 and views. We've conducted additional outreach
13 activities similar to this meeting with other
14 stakeholders, and today we are anxious to hear from
15 you, the representatives of non-government
16 organizations.

17 We will make the same pledge to you that
18 we made to other stakeholders: to listen openly to
19 your comments and to seek ways to incorporate those
20 concerns that have a valid technical basis into our
21 regulations and guidance as we continue to ensure the
22 protection of public health and safety.

23 We encourage you to use this time today
24 with us to help us collect your position on key
25 emergency preparedness issues. Please understand that

1 if we ask for a clarification or seem to probe deeper
2 in response to any of your concerns or issues, we're
3 not trying to be argumentative or refute any of your
4 concerns, but rather, we want to ensure that we
5 understand your position.

6 We will share your comments with the
7 Commission as we provide them the results of our
8 review. Our responsibility is to present your issues
9 to the Commission in a thoughtful, technically sound,
10 and logical manner, which will require a thorough
11 understanding on our part. Your opinions are valuable
12 to us, and we are actively seeking to enhance our
13 working relationship with all stakeholders.

14 Our agenda topics today are intended to
15 provide us a framework that is broad enough to allow
16 ample discussion of the EP issues that you feel are
17 most important as we move forward. We ask that you
18 work with us today to make this a productive
19 experience for all, and with that, let me ask if there
20 is any opening remarks. Anybody? Anything you want
21 to share?

22 MS. LAMPERT: I'll open. The major point
23 that I want to bring, I deal with planning on a
24 practical basis, because I'm also the chair of our
25 town's nuclear advisory committee, and so I've been

1 reviewing annually the plans and procedures for the
2 town of Duxbury around Pilgrim, oh God, since 1988
3 every year, if you can imagine. I know it by heart.

4 And the major thing, message I'd bring is
5 the necessity for regulations and guidance to be more
6 reality based. That is, to be based particularly --
7 one focal point is to have hazard assessment recognize
8 that, particularly in our coastal areas, but also up
9 around Indian Point, that the straight line, steady,
10 straight line gaussian plume model is really something
11 that doesn't exist in reality, and the input, of
12 course, is largely the met tower on site.

13 What is needed is the ability to consider
14 the fact that weather conditions are a byproduct of,
15 affected by, the sea breeze effect, by the variability
16 into rain, by the number and clustering of buildings,
17 and other factors. So what it means is the winds are
18 highly variable, and to understand what's happening,
19 if you rely only on the met tower, essentially at the
20 reactor, and what's going to happen is you know where
21 it started, but you have no idea where it's going or
22 where it's been, and as a result, you may be sending
23 people into a plume or telling people to stay put when
24 it's going at them, and also you have no way to
25 honestly interpret what has happened to determine

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1 effect.

2 And the last point on reality is basing it
3 on -- basing plans on what people actually do, not
4 what planners would like them to do, to make it look
5 good on paper. That would mean the shadow evacuation,
6 et cetera, being taken into consideration. So that's
7 where I'm coming from.

8 MR. MAMISH: Thank you, Mary. We'll get to
9 those good issues in some more detail later on. Let
10 me, to kick things off a little bit, begin to discuss
11 security-based -

12 MR. WILLIAMS: Let me -- before we get
13 started, there is one thing that I forgot to say is
14 that as we move through the meeting, we won't be
15 making policy decisions. We will be exchanging
16 information, but we're not -- you know, this is not
17 the forum to make any decisions such as that. We're
18 here to discuss the issues, take that back to, you
19 know, to our respective organization, and then inform
20 our paper.

21 MR. MAMISH: Okay. Thank you, Kevin. To
22 kick things off and begin our discussion on security-
23 based emergency action levels, let me spend -- is that
24 any? You don't have anybody on? Okay.

25 Emergency classification levels -

1 MR. LEEDS: If I could interrupt you for a
2 second.

3 MR. MAMISH: Sure.

4 MR. LEEDS: There is one thing I just want
5 to make sure everyone understands and the audience
6 understands. I think our, the folks at the table
7 understand, but I don't want to assume anything. The
8 reason we're doing this review, we're doing an
9 emergency preparedness regulations and guidance
10 review, is because we know that the world has changed
11 since 9/11.

12 We've made a number of changes. We're
13 doing a number of things since 9/11 to include the
14 aspect of security-based emergency based preparedness,
15 and the Commission asked us to provide them with a
16 paper with recommendations on how to proceed to
17 improve our regulations based on the new environment,
18 and so what we've done is -- what we want to do, and
19 what we've started to do is engage all of our
20 stakeholders, and we talked a little bit about that.

21 The input that you give to us, we will
22 provide to the Commission in September, and we want to
23 be able to provide your thoughts, your bases for what
24 should be changed, as straightforwardly and honestly
25 and credibly as possible. We're doing the same thing

1 with our other stakeholders. We're doing it with the
2 states. We're doing it with the industry. So we're
3 going to get a variety of inputs.

4 When we met August 31st and September 1st,
5 one of the things we learned from that meeting was
6 that our stakeholders have a very disparate view of
7 what needs to be done, all right? The industry had a
8 number of their issues. The state and local
9 responders had a number of their issues. The non-
10 governmental organizations, you folks, have a number
11 of your issues. They don't always intersect. They
12 don't always agree with one another.

13 We want to be honest brokers, as honest as
14 we can, to present all the diverse view points to the
15 Commission and provide them our recommendations for
16 what we think should go forward, but we want to be as
17 transparent as possible, so we need to understand your
18 input so that we can provide that to the Commission.

19 I don't know if that was well understood
20 or not. Any questions on that? That's why we're
21 doing this meeting. That's why we're asking you for
22 your opinion so that we can provide that to the
23 Commission.

24 All right? Good. I'm sorry to interrupt.

25 MR. MAMISH: No. It's okay.

1 MR. LEEDS: I just want to make sure that
2 everybody understood that. Okay. Thanks. Go ahead.

3 MR. MAMISH: Okay, emergency classification
4 levels refer to the four standard classes of
5 emergencies used to categorize incidents at nuclear
6 power plants into increasing levels of seriousness.
7 Notification of unusual event, alert, site area
8 emergency, and general emergency.

9 The emergency classification level ECL's
10 definitions have been revised to incorporate security
11 based events into emergency preparedness planning
12 basis. Emergency Action Levels, EALs, are
13 predetermined, observable thresholds for plant
14 initiating conditions that place the plant into one of
15 the four emergency classes. An EAL can be, for
16 example, and instrument reading, an equipment status
17 indicator, a measurable parameter, or a discrete
18 observable event.

19 Security-based EALs, as some of you may be
20 aware, have been an initiating condition for emergency
21 classification schemes, including the original NUREG-
22 0654 EALs implemented in the early eighties. To
23 ensure an appropriate level of response to the
24 security based event in the post-9/11 environment, new
25 EALs have been developed to take advantage of the

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1 threat assessment information, to provide more
2 anticipatory emergency declarations, and to recognize
3 the threat posed by security-based events, rather than
4 current planning conditions. These changes were
5 addressed in the bulletin that we issued last year,
6 Bulletin 2005-02, Emergency Preparedness and Response
7 Actions for Security-Based Events.

8 The nuclear power industry is expected to
9 initiate a revision of NEI 99-01, methodology for
10 development of emergency action levels, to incorporate
11 the new security-based EALs and other changes that
12 will then be submitted to the NRC for endorsement. As
13 part of the endorsement process, the NRC will provide
14 an opportunity for public comment. Stakeholders can
15 expect that public meetings and appropriate
16 opportunities for comment on the revisions will take
17 place.

18 So we had our meeting last year, and what
19 we heard from you, and I'm just going to discuss four
20 main points and then turn it to you for dialogue. One
21 thing that we heard was that the criterion for
22 security-based events should be based on the
23 consequence or consequences of an event, whether or
24 not a release might be expected.

25 EAL terminology often triggers a

1 predetermined protective action such as pre-written
2 press releases. You commented that security events
3 may need separate and distinct press releases. You
4 also indicated that we should look at expanding the
5 vital area definitions to include spent fuel cooling
6 and make-up equipment to revised emergency plans so
7 that the reactor core and spent fuel hazards are
8 handled comparably.

9 And lastly, you questioned whether the
10 threshold for what triggers a security event, whether
11 that was low enough, so with that intro, let me know
12 turn it over to you and see if you can expand on those
13 issues.

14 MR. -- Thank you. Well, Nader one of the
15 issues, I think, has to do with the whole issue of
16 predetermined actions, and obviously one of the
17 concerns is how the stations respond to anticipated
18 threats, too. I mean, part of the issue is being
19 ahead of the curve, particularly with security events
20 as we understand it, and I think that what the area
21 that we're looking to get more clarity and more direct
22 communication is that not all -- that the EALs don't
23 fit. One size doesn't fit all.

24 We think that there are -- that there
25 should be -- that there are designs that are more

1 vulnerable than others, for example, and should be
2 treated differently. To be specific, you're aware,
3 I'm sure, that not only is there broad public concern
4 with regard to the Mark I Boiling Water Reactor, but
5 we now have the state of New Jersey as filing on the
6 license extension for Oyster Creek with regard to
7 severe accident mitigation analysis for the elevated
8 storage pond at Oyster Creek.

9 Similarly, we expect the state of
10 Massachusetts to file similar contentions in the
11 Vermont Yankee and Pilgrim Mark Is. So, you know,
12 there are a whole set of EALs, I would believe, that
13 need to focus on the vulnerability as broadly
14 perceived of the elevated storage ponds, and what --
15 you know, I think that it's also a question of whether
16 any of the EALs would be effective, particularly given
17 that these pools are just like sore thumbs.

18 And, you know, I think that what we'd like
19 to do is, and again, you know, we understand that
20 there are safeguards issues here, but we do need to
21 have frank discussions, and it's not just going to be
22 from public stakeholders, but you're going to begin to
23 see this from the states, as well.

24 So the --I think that, in broader terms,
25 though, that was just an example that the EALs, I

1 think, need to be tailored to specific design
2 vulnerabilities and site issues, rather than try to
3 shoehorn all these issues into one EAL or class of
4 EALs.

5 MR. RICCIO: Just to follow up on what Paul
6 is saying, one way you could possibly base this is
7 looking at your containment failure probabilities. You
8 know, not all containments were designed equally, and
9 taking credit for certain reactors within your
10 regulatory system for containment holding for, you
11 know, absence of a large early release frequency in
12 some instances is not realistic, especially when you
13 then take credit for it elsewhere in your regulatory
14 framework.

15 MR. LEEDS: I'm sorry, Joe. Would you say
16 that again? I missed that point.

17 MR. RICCIO: Taking credit for containment
18 holding when you know that you have a 90% probability
19 of containment failing in the event of a core melt
20 should not allow you to credit for that, you know, for
21 instance Cooper.

22 You take credit for basically containment
23 holding at Cooper. I've been trying to get the --I've
24 had a FOIA out on this for about a year and a half
25 now. You take credit for Cooper holding, and in the

1 ROP, you take credit for being able to get people out
2 before they're exposed to the radiation.

3 I think that's unrealistic in many
4 instances, and I don't feel you should be allowed to
5 take credit for emergency planning in other parts of
6 the ROP or any other part of regulation, given the
7 uncertainty about whether or not you're actually going
8 to get people out and actually whether you're going to
9 have to protect them.

10 MR. LEEDS: So if I paraphrase back to you,
11 so you're saying that the EALs should be anticipatory,
12 and if you anticipate that there's a high probability
13 of, say, containment failure -

14 MR. RICCIO: Containment failure. Right.

15 MR. LEEDS: -- that the EAL should reflect
16 that -

17 MR. RICCIO: Should reflect that.

18 MR. LEEDS: -- and that you're going to
19 start moving people. You're going to start --the EAL
20 should trigger action sooner than later based on that.

21 MR. RICCIO: Based on your containment
22 failure probabilities.

23 MR. LEEDS: Which also fits in very much so
24 with one size doesn't fit all that the EAL should be
25 very much tailored for the design, and that's the

1 point that you're making. Is that a decent summary?

2 MR. WILLIAMS: Any comments?

3 MS. LAMPERT: I have a comment. You go
4 ahead.

5 MR. LEEDS: No, go ahead. Go ahead.

6 MS. LAMPERT: Again, in a more -

7 MR. LEEDS: I'm not using mine. I'm sorry.

8 MS. LAMPERT: Again, in a more practical way,
9 I've read and have the most recent EALs for security
10 events for the Pilgrim Nuclear Power Station, and I
11 expect it's probably the same across the board.

12 "Unusual event: Should the threat involve
13 an airliner, airliner is meant to be a large aircraft
14 with a potential for causing significant damage to the
15 plant. Then escalation to an alert would be
16 appropriate if the airliner is less than 30 minutes
17 away from the plant. You could consider upgrading the
18 emergency response status and emergency
19 classification."

20 Now, frankly, the planners went nuts when
21 they read this, because it makes absolutely no sense.
22 It seems in a security event it would be appropriate
23 to have mobilization, getting your responders into the
24 EOCs, contacting and upping this to contacting your
25 transportation providers and not alerting the public.

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1 I'm not saying get the sirens out, and so
2 if nothing happens, you know, people are killing
3 themselves getting out of town, but not to fast
4 forward in getting all your emergency personnel
5 prepared and ready, recognizing it takes time, is a
6 mistake.

7 And my next comment is, reading through
8 these EALs, I see a lot of -- I don't know what you
9 call it, frosting or something, referring to just
10 large aircraft, which is, what, perpetuating the myth
11 that a small plane loaded with explosives couldn't do
12 a number on a reactor? Of course it could, so just
13 take it out so it looks honest. Aircraft is enough.

14 We have also here, "The EAL should address
15 loss of physical control of spent fuel pool cooling
16 systems if imminent fuel damage is likely, e.g.
17 freshly off-loaded reactor core in pool." Does that
18 mean that the National Academy of Science's
19 vulnerability of spent fuel pool talking about fires
20 is only a problem if the recent fuel is there? No.

21 In a densely packed pool situation, which
22 we have, this should be recognized, and I think for
23 the public and for emergency responders to have in the
24 system, they can't see this PR business. I think it
25 has to be straight and these old stories taken out and

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1 just straightforward to increase confidence if nothing
2 else.

3 MR. MAMISH: Okay, before we take anything,
4 let me allow -- I don't want it to be just a one-way,
5 so I'll let you two speak, and then I think it's
6 reasonable for us to probe a little bit.

7 MR. MUSEGAAS: I would just follow on
8 Pixie's comments. I actually wanted to talk about the
9 30-minute aircraft EAL, as well, and I think, you
10 know, and just plainly speaking, I think unless that
11 particular EAL is more well explained and, you know,
12 the basis for it and the understanding of it is more
13 clarified, it really serves no purpose, because for
14 Indian Point is a good example because of the high
15 population density we have near the plant and the fact
16 that, you know, based on where airports are located
17 near Indian Point, all these basic common sense
18 things, I don't know what having a 30-minute advance
19 warning of a hostile aircraft really is going to --
20 how that's going to benefit, and I'd love to hear some
21 clarification on that. I mean, if it's at the status
22 it is right now, if you have a 30-minute inbound
23 aircraft, then you go to an alert? Is that right?

24 MS. LAMPERT: And actually it starts out as
25 an unusual event, and then they're recommending at 30

1 minutes.

2 MR. MUSEGAAS: Okay.

3 MS. LAMPERT: At 29 minutes it becomes an
4 alert.

5 MR. LEEDS: Outside 30 minutes, it's a UE.
6 Once it's within 30 minutes, it's an alert.

7 MS. LAMPERT: Yes, that's why I was saying
8 29 minutes. But then again, you kind of -

9 MS. ROSENBERG: I'm sorry, what's the
10 question that you have?

11 MR. MAMISH: How will 30 minutes do for us?

12 MR. MUSEGAAS: How does that benefit us?
13 I mean, I don't see, and is that 30 minutes, is that
14 assuming that we have 30 minutes before an inbound
15 aircraft is not going to be intercepted, and it's
16 going to strike the plant? I mean, it's very vague,
17 and it's -- the description of what type of aircraft
18 it is is also very vague. I don't see how disclosing
19 that information and the basis for it is any kind of
20 safeguards issue, but perhaps it is.

21 But, I mean, those are my concerns. I
22 don't -- I think it wastes a lot of time and energy
23 for all of us if we have regulations that appear to
24 achieve an end but realistically don't have any real
25 benefit.

1 MS. ROSENBERG: So are you looking for more
2 of a basis explanation?

3 MR. MUSEGAAS: To begin with, yes.

4 MS. ROSENBERG: Okay.

5 MR. GUNTER: And to follow on with that,
6 the -- you know, the questions and comments you're
7 hearing here, I think, go back to whether or not an
8 EAL has any confidence from the public. So I suppose
9 my question is if, in fact, an EAL such as the 30-
10 minute warning on aircraft, and again, I would
11 emphasize what Pixie has stated, that, and we've
12 discussed this at an earlier meeting, that larger
13 craft is it's not necessarily an appropriate
14 description when you're looking at the variety of
15 designs and vulnerabilities out there, so.

16 But if Disney World warrants a no-fly
17 zone, rather than an EAL, I think the public is
18 concerned as to why no-fly zones are not appropriate
19 or more appropriate than certain actuation levels.
20 Let's just establish that the vulnerability and the
21 consequence warrant this kind of evaluation, and
22 we've, you know, for establishing appropriate no-fly
23 zones.

24 This is what we're hearing. You know,
25 we're seeing it in letters to the editor. We're, you

1 know, we hear it from our constituents. I'm sure
2 you're hearing it, as well. The question is,
3 particularly with the aircraft issue, is why are we
4 not seeing no-fly zones as the appropriate emergency
5 actuation, given the vulnerability and consequence?

6 MR. LEEDS: No-fly zones. Let me respond
7 a little bit. We just heard an awful lot of different
8 issues, all right, so we just got a shotgun of issues,
9 and it's supposed to be an information exchange, so we
10 want to hear what the issues are. We want to be able
11 to react to them. We also want to have some basis so
12 that when we go to the Commission, we can say, "This
13 is why folks are looking for -- these are your
14 issues." You know, that's why you want to see change.

15 So event escalation. Let's go back to the
16 event escalation issue if we could. The aircraft is
17 30 minutes out, more than 30 minutes out. It's an
18 hour out. It's two hours out. Rather than go to an
19 unusual event, you're suggesting that we go to an
20 alert.

21 MS. LAMPERT: Perhaps, also, you may
22 consider, because this is a different type of event,
23 having an EAL focused more on getting your personnel,
24 emergency personnel, in place, mobilized, your support
25 services, because if you follow your classic what

1 happens that an alert -- for example, an alert, you
2 can have mobilizing of school buses, bringing them on
3 site. Maybe you don't want to do that, so I think --
4 what I'm saying is you want to get all you support in
5 place, ready to go, not mobilizing the population.

6 MR. LEEDS: All right, well -

7 MS. LAMPERT: And I think that's a
8 different situation.

9 MR. LEEDS: Understand, I'm trying to go
10 back to the 30-minute cutoff. Can you give me an idea
11 of what cutoff we should ask for the Committee? I
12 mean, if we have intelligence, and the aircraft is two
13 hours out, should we put -- you know, an aircraft
14 travels -- let me finish.

15 MS. LAMPERT: Yeah, here's an example.
16 I'll tell you.

17 MR. LEEDS: Let me finish. An aircraft,
18 commercial aircraft, travels roughly 400 knots, so the
19 aircraft is an hour out. Well, it's an hour outside
20 of what? Fifty nuclear power plants. Do we want to
21 put all those folks on alert, and what would be the
22 basis? What do you want me to tell the Commission as
23 to at what point do we go to alert, from UE to an
24 alert? Should all the plants automatically be on
25 alert if you have a hijack?

1 MR. GUNTER: Eric, you know -

2 MR. LEEDS: What do you want me to tell the
3 Commission?

4 MR. GUNTER: -- just to clarify, there are
5 -- you know, we've got descriptions of non-commercial
6 air fields within ten miles of nuclear power stations.
7 That's the concern to populations. It should be a
8 concern to you. You know, I think we have to get off
9 of the commercial aircraft description, because the
10 threat can come from non -- the threat can come from
11 private aircraft.

12 MR. RICCIO: I think we're -

13 MR. LEEDS: And that's fine, from any
14 aircraft. So, if we have intelligence, if we know an
15 air -- what do you -- what specifically -- you said 30
16 minutes isn't appropriate. You want me to go back to
17 the Commission. What do you want me to tell the
18 Commission?

19 MR. GUNTER: Let me -

20 MR. LEEDS: What's? Hold on.

21 MR. RICCIO: Can I clarify?

22 MR. LEEDS: You know, what's appropriate?

23 MR. RICCIO: Because I think we may have
24 caused the confusion.

25 MR. LEEDS: Right. I am -

1 MR. RICCIO: We're just saying that, you
2 know, in certain instances, you're not going to have
3 30 minutes. I'm sorry, if you have a plane take off
4 from LaGuardia or from, you know, the airport in
5 Jersey, I'm sorry, Oyster Creek is right there.

6 MR. LEEDS: I understand that.

7 MR. RICCIO: You're not going to have 30
8 minutes, so to put, you know, that you have 30 minutes
9 in there may not be realistic, and so I think you
10 should account for that within the EAL. That's all
11 I'm saying.

12 MR. LEEDS: I thought that, yes, and I
13 thought that we do have that. If it's less than 30
14 minutes, you're going to an alert. You know, we
15 escalate depending on how far out we think the
16 airplane is.

17 MR. RICCIO: That's what, basically, I'm
18 saying at certain airports, certain instances, you're
19 going to alert immediately anyway.

20 MR. LEEDS: That's what the EALs say.

21 MR. RICCIO: Right.

22 MR. LEEDS: So what do you want changed is
23 what I'm asking.

24 MS. LAMPERT: This is what I want to
25 suggest. I mean, your card isn't up. Mine was.

1 MR. LEEDS: Kevin, you're not doing a good
2 job.

3 MS. LAMPERT: As the focus is, as mine is,
4 getting the support services ready, there is a, for
5 example, three-hour mobilization time for the buses
6 for the transportation dependent. So, if you have 30
7 minutes, what you're saying is that you're going to be
8 at least three hours and a half away from getting the
9 buses for the transportation dependent, and so I think
10 you can look at it.

11 Really logically you can come up with a
12 rationale on who you want to mobilize, how long it
13 takes; therefore, at what time, when you know there is
14 a plane that's up to no good, that it's worthwhile
15 notifying the transportation providers, et cetera,
16 right away.

17 So what is it? An exercise with a little
18 reality base. So I say go beyond 30 minutes if you
19 know there is a loaded, a plane loaded forebear,
20 because it takes a long time to mobilize what would be
21 needed if, in fact, they were needed, and you have
22 lost nothing. You've gained a reality-based drill if
23 nothing else.

24 MS. ROSENBERG: Did that answer it?

25 MR. LEEDS: No.

1 MR. MAMISH: Did somebody join us? Hello?

2 MS. ROSENBERG: Is somebody on the line?

3 MS. PETERSON: Yes, this is Elise Peterson
4 from New York State.

5 MS. ROSENBERG: Thank you.

6 MR. LEEDS: Well, not really. I want to be
7 able to take your position and go back to the
8 Commission and say, "Thirty minutes is," and maybe I
9 don't understand your position, is that 30 minutes is
10 not a good cutoff from going, for an emergency action
11 level from going from an unusual event to an alert,
12 that 30 minutes is inappropriate, but I don't hear
13 from you what is appropriate. I don't understand what
14 you want us to change.

15 MR. MAMISH: Yes, exactly. That's what I
16 wanted to say. There are two different concerns here.
17 One concern that I'm hearing is 30 minutes is not
18 enough. The other concern that I'm hearing is, that
19 Mary articulated, was with that, you don't have
20 sufficient time to mobilize -

21 MR. GUNTER: Because it's the response.

22 MR. MAMISH: -- the response field, so you
23 need to think about, as you're making that
24 declaration, you need to think about mobilizing
25 emergency response folks. Is that correct?

1 MS. LAMPERT: Yes, and so it could
2 certainly go much longer than -- as soon as you hear
3 about it, you make your call to mobilize your people.

4 MR. WILLIAMS: Let me step in for a second
5 if I -- I understand the 30-minute issue, and I'm
6 going to go back to yours for a second. If we're
7 talking about -- are we talking about mobilizing of
8 the emergency responders, or are we talking about
9 mobilizing, moving people? I'm trying to get it.

10 MS. LAMPERT: No, the emergency responders,
11 the transportation providers, being notified, not the
12 people.

13 MR. WILLIAMS: Okay. Now, Dan, can you
14 speak to that at all?

15 MR. WILCOX: I guess I would just say that
16 certain the capability is there to make a notification
17 as however far out we think we need to be, and I don't
18 think that the EALs limited us, limit us to that if
19 the need is there, you know, say an hour or two out.
20 You know, yes, the EALs trigger certain actions, but
21 it does not preclude other actions from being taken
22 before the EAL is issued.

23 MR. MAMISH: That is, I mean, I don't
24 understand what that means.

25 MR. WILCOX: Well, that just means that if,

1 just for example, if local law enforcement or the
2 local emergency management agency was notified of this
3 threat, they could start making necessary -- I won't
4 say. No, for lack of a better word -

5 MR. MAMISH: Preparations?

6 MR. WILCOX: Preemptive actions. They
7 could go ahead and begin, you know, putting their
8 transportation providers, you know, on alert, and
9 maybe bringing in, you know, the off-duty policeman,
10 that sort of thing. I mean, they don't have to wait
11 until an EAL is issued to do those things if there is
12 a bona fide threat that we have more lead time. We'll
13 use whatever lead time we can get to make those
14 notifications.

15 MR. WILLIAMS: And just as a point of
16 clarification, you know, as we've been going out and
17 doing the CRs, comprehensive reviews, you've worked
18 with the state and the locals, and you get everybody,
19 you know, in the room together, and you discuss these
20 issues, you know? So what are you doing? How are you
21 prepared to do this? What does your infrastructure
22 look like, such that you can adequately address what's
23 going on, and that's maybe something that I would like
24 Dan to speak to, as well.

25 MR. WILCOX: Just a follow on to carry on

1 with what you were saying. For these comprehensive
2 reviews, for example, we get all of the state, the
3 county, the township, whatever the makeup is of the
4 community surrounding the plant, we get them together,
5 and we run through basically a loose scenario and say,
6 you know, at this point in time what would you be
7 doing? And so we what-if this kind of thing as such
8 as we ca. Even in the security-based drills, which
9 we'll hear about later on, we do the same type of
10 thing.

11 The idea is not to be so prescriptive that
12 we can't make, that we can't start taking protective
13 actions. Protective action's probably not a good word
14 here, but take steps to be prepared to pre-deploy, to
15 use a disaster response term. We can still do those
16 things even before an EAL is declared out in the
17 communities if we're aware of that threat information
18 and, you know, it's pending, credible and that sort of
19 thing.

20 MR. MAMISH:: Can I make just a couple of
21 quick comments, if I may, and then I will yield the
22 rest of my time. Concerning the 30-minute
23 notification, for what it's worth, the reason why we
24 have that notification, NRC notification, is to allow
25 us, if there is a threat to any given nuclear

1 facility, it would allow us to get that word out to
2 other potential sites that -- you know, we know that
3 Al Quaeda operates in a coordinated fashion, so what
4 we want to do is blast dial the rest of the plants so
5 that they're on heightened awareness, do what they can
6 to protect the plants.

7 I want to go back very quickly to the
8 issue that Eric raised. Jim, you indicated that 30
9 minutes may not be enough. What would be your
10 proposal or suggestion?

11 MR. RICCIO: Sorry, Nader, I was looking at
12 something. All I'm saying is that when you have 30 in
13 a document, and someone looks at it and goes, "I'm
14 sorry, but my nuclear plant is 15 minutes from the
15 airport," it should reflect that. That's all I'm
16 saying.

17 MR. GUNTER: I would second that. And just
18 one more thing, you know -

19 MR. MAMISH: Let's let him finish.

20 MR. RICCIO: One of the, you know, and one
21 of the problems you're going to have with, especially
22 this crowd, is that we already -- you know, I think
23 each one of us signed the petition asking that NRC
24 actually reduce the risk from the spent fuel pool, the
25 petition which has been denied, and so when we're

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1 coming in here trying to help you get to the point of
2 addressing how to protect people when the agency has
3 already determined that they don't need to reduce the
4 risk coming out of the spent fuel pool, that's where
5 you're going to have some problems with us.

6 So when we're talking about airliners
7 coming into nuclear plants, when the agency hasn't
8 taken the first steps to reduce the overall risk, you
9 know, obviously you recognize that the spent fuel pool
10 is a risk. That's why you have this.

11 But the fact that, you know, we're dealing
12 with an agency that doesn't want to acknowledge that
13 risk or where we have an industry that will repeatedly
14 mischaracterize the facts about it, we have some
15 problems with just dealing with this in general.

16 MR. LEEDS: I appreciate what you just had
17 to say. This is something that we're struggling with
18 here. There's so many just areas that are
19 intertwined. We can make progress today. We can help
20 improve the, I think, your concern and our concern.
21 Our bottom line is the same, public health and safety.

22 We're not going to fix the world today.
23 We can't fix everything that you may have a problem
24 with with nuclear power and with our regulatory
25 structure, but we can make progress if you want to

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1 make progress, or at least we can understand what your
2 issues are so that we can go back and chew on them,
3 and we can give them to the Commission, and that's
4 what we're trying to do.

5 So I'm going to ask you to please try as
6 much as you can to focus on the issues that we can go
7 after, and be careful about the intertwining. And I
8 know it's very, very difficult. I'm -- let me.

9 MR. GUNTER: Well, I'm talking about
10 security and EP.

11 MR. LEEDS: Yes, it's tough. Can I just go
12 back? There's a couple issues here that I've heard
13 that I think we can represent easily to the
14 Commission: larger versus small aircraft. All right.
15 You want to take that out, because you're concerned
16 about aircraft with -

17 MR. GUNTER: It's explosives.

18 MS. LAMPERT: Yes. Just -

19 MR. GUNTER: Explosives is the -

20 MS. LAMPERT: Just take out the adjectives.
21 Aircraft.

22 MR. LEEDS: And so I think I understand
23 that, and I think we can represent that.

24 MR. GUNTER: You can compensate for fuel
25 with explosives.

1 MR. LEEDS: Right. And then you talked
2 about the spent fuel pools or ponds, recently
3 offloaded fuel, and that there should be some concern
4 that EALs should address those. Is that right?

5 MS. LAMPERT: Well, no. The issue was not
6 to have the words "recently offloaded," that with
7 densely packed pools, which, unfortunately, are
8 reality, there is a risk of fire if the water drains
9 whether it's the old stuff or the new stuff.

10 MR. LEEDS: Okay. Right. I understand
11 that.

12 MS. LAMPERT: That's all.

13 MR. LEEDS: Do you have any kind of
14 technical study that you could point to?

15 MS. LAMPERT: Yes, the National Academy of
16 Sciences is good for me. It's called the "Spent Fuel
17 Vulnerability Study."

18 MR. LEEDS: Where? Good. All right.
19 Good, so I understand those issues.

20 MS. LAMPERT: Okay. There's another.

21 MR. LEEDS: I'm having trouble, with the
22 30-minute aircraft EAL. Can I -

23 MR. GUNTER: Okay. Can I -

24 MS. LAMPERT: Can I talk about it?

25 MR. LEEDS: Let me just tell you what I

1 understand so that you can correct me, and maybe
2 that'll help. If the aircraft is out more than 30
3 minutes, and we think the intelligence community has
4 some intelligence that the terrorists are targeting a
5 certain nuclear power plant, it's more than 30 minutes
6 out, or maybe a number of nuclear power plants.

7 Remember, these aircraft are flying very,
8 very fast. They can travel a lot of area, and there's
9 a lot of different paths that they can take. So we
10 want to alert folks. We want to get them prepared and
11 start taking their actions, so we have a cutoff 30
12 minutes, which seems to be problematic, that the site
13 should go to an unusual event. Within 30 minutes,
14 they should go to an alert.

15 So you have airports that are within 30
16 minutes. All right, so if we know the intelligence,
17 that this plane took off, and it's hijacked, and it's
18 closer than 30 minutes, well, they're not going to a
19 UE and then an alert. They're going to go directly to
20 an alert.

21 So I'm having trouble with the 30 minutes.
22 What do you want me to tell the Commission is a better
23 time period for escalating actions? I mean -

24 MR. GUNTER: Could I just say that I think
25 that what you're hearing are arguments for

1 establishing no-fly zones.

2 MR. LEEDS: Is that what -

3 MS. LAMPERT: No, that isn't what I had
4 documents on.

5 MR. MUSEGAAS: That's what we hear. I
6 mean, the fact that nuclear power stations are ringed
7 with airports -

8 MR. LEEDS: But that's not what I heard
9 from Mamish.

10 MS. LAMPERT: No, because I thought this
11 was the discussion, not on -- I mean, it's an
12 important discussion to have on reducing
13 vulnerability, and certainly, no-fly zones, I think
14 short-range missiles are on site. But that's not what
15 we're talking about today as reducing vulnerability.
16 We're talking about when the shit's hit the fan.
17 We're looking at emergency planning. Is that correct?

18 MR. LEEDS: I didn't put it that
19 eloquently, but -

20 MS. LAMPERT: And so -

21 MR. MUSEGAAS: So we are talking about
22 preemptive actions.

23 MS. LAMPERT: Yes, if that's what we're
24 talking. I mean, are we talking about emergency
25 planning or preventing the problem to begin with?

1 MR. LEEDS: Emergency preparedness. You're
2 a hundred percent right. I agree with you.

3 MS. LAMPERT: Okay, then what I wanted to
4 mention is you're looking for a fixed number. I would
5 say as soon as it's known that you have a plane that's
6 loaded forebear, then it would be appropriate to
7 figure out at that time where reasonably it can hit.

8 If it's on the East Coast, probably you
9 aren't going to go out to California, but I think you
10 would notify those places as soon as possible so they
11 could get their emergency personnel in line, which
12 would be more than 30 minutes.

13 But I wanted to respond to what Dan Wilcox
14 had to say.

15 MR. LEEDS: Can I just summarize?

16 MS. LAMPERT: Because this ties up -

17 MR. LEEDS: -- make sure that I understand?

18 MS. LAMPERT: Okay. Go ahead.

19 MR. LEEDS: I just want to make sure I
20 understand, you know, so when we tell the Commission
21 30 minutes isn't appropriate. As soon as we know that
22 an aircraft has been hijacked, and we have an idea
23 where it's going, we should put the plant at what
24 level, on alert? A site area? General? What?

25 MS. LAMPERT: Get right up to your site

1 area where everyone is getting prepared. They're
2 mobilizing, and the reason being, because I think what
3 Dan Wilcox was saying was, "Well, locally we could, or
4 we could not," and I don't think that's an option.
5 That's a problem I have in general where emergency
6 planning has been going in general, could or could
7 not, as opposed to being prescriptive.

8 I thought Commissioner Jackzo or however
9 he pronounces his name -- I wish I could -- I don't
10 mean to -- I wish I knew how to pronounce it.

11 MR. LEEDS: You did it right.

12 MS. LAMPERT: Is that how he pronounces it?
13 Good. His talk out in St. Louis, I think, spoke to
14 this, that there should be more specifics. The bar is
15 being set. Not that you can't go any further, but
16 instead of having guidance be more, you can, or you
17 can't or maybe, consider, it should be stiffened up,
18 particularly in this area.

19 MR. MAMISH: Let me -- I'm going to let
20 Kevin and, you know, help us move on. Just for the
21 record, I think that the issue that you're raising is
22 a very good one, Mary. We'll need to go back, work
23 with DHS on the issue of mobilization of responders.
24 It is certainly an emergency preparedness and a
25 response issue.

1 I don't know how -- it's not clear to me
2 how we're going to move that into EALs, because the
3 EALs trigger certain actions, not only for the off-
4 site folks, but also for the licensee, so it's a very
5 good issue, and I think it's a little bit complicated
6 for us to solve it pretty quickly.

7 MR. WILLIAMS: I think, and I'll ask
8 Stacey, that Eric has summarized the issues, so I
9 don't believe we need to do that. Phillip, I would
10 ask if you have another comment that's related to this
11 that, you know, take about a minute or so to wrap it
12 up, and then as long as we captured all of your
13 thoughts, then we need to move on to the next topic.

14 MR. MUSEGAAS: Okay. Yes, I just have a
15 quick comment. I think the overall consensus with
16 some degrees of difference between Pixie and Paul,
17 perhaps, and myself is that unless the agency can make
18 a better justification for having this 30-minute rule,
19 it seems like an ineffective regulation to have, and
20 I think this goes back to the issue of site-specific
21 differences, because at Indian Point you have several
22 major airports within, easily within 20 minutes of the
23 plant. Westchester County airport is probably five
24 minutes from the plant.

25 So I'm not saying you put a caveat in

1 there that this regulation doesn't apply to Indian
2 Point, but give us the technical and the basis on
3 which you made this regulation. What is the purpose
4 of it? If the purpose is to notify other plants in a
5 wider area, that makes more sense to me.

6 But for Indian Point, and that's the plant
7 I'm concerned with, this regulation is absurd, and I
8 don't mean to offend. I'm just saying it doesn't --
9 I don't see the usefulness of it, because we would be
10 on alert all the time, probably, if there was, you
11 know, if you pushed it back far enough, so that's just
12 -- I don't want to go on, but that's my concern with
13 that.

14 MR. LEEDS: Just a clarification -- not
15 offended. I understand where you're coming from, I
16 think.

17 MR. MUSEGAAS: Okay.

18 MR. LEEDS: It's, just for clarification,
19 the 30 minutes isn't a regulation. It's not codified.

20 MR. MUSEGAAS: It's guidance, right?

21 MR. LEEDS: It's a practice. It's the way
22 we're working right now. It's helpful for us if we
23 can -- the more information you have, the more
24 technical basis you can provide, the more alternatives
25 that you can provide, the better we can present that

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1 to the Commission with a recommendation as to a course
2 to pursue.

3 You know, if we go back to the Commission
4 and say, "Thirty minutes is no good. You know, the
5 public thinks 30 minutes is no good, because - ."
6 Well, what would you rather do? It just doesn't
7 provide as much of a basis for us to say, "Yes, we
8 should move on this," or "No, we shouldn't," you know,
9 whether we endorse it or not.

10 MR. MUSEGAAS: Okay, well, can't -

11 MR. LEEDS: You understand?

12 MR. MUSEGAAS: I do understand, but I think
13 it would make sense to go back to the Commission and
14 say, you know, "The NGOs that are representing the
15 public don't understand the basis for this choice."

16 MR. RICCIO: We understand it. We just
17 don't agree with it.

18 MR. MUSEGAAS: Well, yes, however you want
19 to put it, but that's -

20 MR. RICCIO: Would the number of airports
21 within ten miles of nuclear power plants provide you
22 the basis you need to go back to the Commission?

23 MS. LAMPERT: Because they don't have to be
24 coming from those airports.

25 MR. RICCIO: I know, but would that provide

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1 you some basis?

2 MR. LEEDS: Well, we have that information.
3 There's a disconnect with understanding in terms of if
4 one of those -- if a plan hijacked at LaGuardia, all
5 right, and we know that it's headed for Indian Point,
6 we're going to go to an alert. You know, it's within
7 30 minutes. As soon as we know, we're going to alert
8 and take off on it.

9 MR. RICCIO: I hope you go to an emergency.

10 MS. LAMPERT: Okay.

11 MR. REEDS: So yes, so we are, so I'm
12 missing the point.

13 MS. LAMPERT: Okay, here's something
14 practical.

15 MR. MAMISH: I just think -- I don't want
16 to short-change the other items. I really think we
17 need to move on.

18 MS. LAMPERT: Can I just say one thing?

19 MR. MAMISH: If you want to short-change
20 other items, that's fine. It's your meeting.

21 MS. LAMPERT: Okay, let me just say this
22 quickly. You wanted some facts. You wanted some
23 facts. What you ought to bring back and look, and you
24 can gather your own data, is, okay, I live in an
25 affluent town. Our policemen, our responders, our

1 emergency personnel don't live in our town. I mean,
2 this is maybe not unusual, so they need as much time
3 as possible to get into the EOCs.

4 I said it was three to three and a half
5 hours to mobilize transportation providers. Mobilize
6 means to go to a town a half hour away to the bus
7 company before they come. These are the types of
8 things you look at to realize you want as much time to
9 be prepared, and therefore extend the 30.

10 MR. WILLIAMS: I think we got it. I think
11 we understand the issues. As we said, we're going to
12 partner with DHS on that other issue, and as we move
13 forward with the 30-minute issue, we'll address that,
14 a well. I think we do need to, in the interest of
15 time, move on to our next topic.

16 MR. MAMISH: Okay, thank you, Kevin. With
17 respect to emergency, with respect to security-based
18 drill and exercise scenarios, as you're aware, nuclear
19 power plant emergency programs are designed to address
20 a wide range of events scenarios. The on-site and
21 off-site emergency response organizations engage in a
22 comprehensive drill and exercise program.

23 Drills are activities that allow for
24 supervised instruction and training in discrete areas
25 of emergency response such as radiological monitoring,

1 medical, fire, and communications. Tabletop drills
2 are facilitated activities designed to identify,
3 establish, and clarify rules and responsibilities
4 among the various organizations responding to an
5 event.

6 Exercises test the integrated capability
7 of the on-site and off-site emergency response
8 organizations and generally involve a simulated
9 radiological release. A full participation exercise
10 evaluated by the NRC and DHS is held once every other
11 year and commonly referred to as a biennial exercise.

12 We've determined that the EP drill and
13 exercise program should become more involved in the
14 response to security event based scenarios, and we're
15 contemplating de-emphasizing radiological aspects so
16 that more emphasis can be placed on practicing inter-
17 organizational skills that are key in the post-9/11
18 environment.

19 The incorporation of security-based
20 scenario elements into the existing EP drill and
21 exercise program was outlined in the bulletin I
22 referenced earlier. The staff has worked with the NEI
23 emergency preparedness security working group, as well
24 a state and local responders during the last two
25 national radiological emergency preparedness

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1 conferences. We've established guidelines for
2 integrating and demonstration of emergency response to
3 security events, including preparation and conduct of
4 integrated drills, exercising ERO response to a wide
5 range of security events.

6 The industry has conducted four security-
7 related tabletop drills and one full-scale drill to
8 date. Some of the issues that we've learned, some of
9 the lessons that we've learned from these drills,
10 include the identification, that identification is
11 needed to permit prompt processing of off-site
12 emergency responders, that federal agency
13 participation in drills should be increased, that the
14 impact of an escalation in the national threat level
15 upon state and local resources need to be considered.
16 This sort of tailors into your issue, Mary.

17 The role of the NRC Resident Inspectors
18 need to be better defined for security-related events,
19 and lastly, the control of air space during security-
20 related events needs to be addressed so that personnel
21 and resources needed for the response are not
22 restricted.

23 For your information, the next phase of
24 this initiative will involve the conduct of EP drills
25 utilizing security event based scenarios at each site

1 over the next three-year period. The staff is
2 considering a regulation to require each site to
3 demonstrate an emergency response to a security event
4 at least once during the six-year biennial exercise
5 cycle.

6 What we heard from you at the last meeting
7 was that we should be considering in our exercises
8 simultaneous events, with one being a security event.
9 We heard that exercise scenarios should be more
10 realistic and meaningful, that there should be a
11 strong lessons learned component to the exercise
12 program, and that we should be involving members of
13 state and local governments and the public as players
14 and evaluators in these exercises.

15 So with that, let me turn it over to you.

16 MR. WILLIAMS: Before we do that, I need to
17 find out where this background noise is. Elise?

18 MS. PETERSON: Yes?

19 MR. WILLIAMS: Do you have a radio on in
20 the background?

21 MS. PETERSON: No, nothing.

22 MR. WILLIAMS: Okay, I've got pretty --
23 okay. All right. Never mind. I apologize and thank
24 you for that.

25 MS. PETERSON: That's okay.

1 MR. MAMISH: Do they have the music?

2 MR. WILLIAMS: No, they don't have a
3 signal. Okay. Paul, go ahead.

4 MR. GUNTER: Could I just put this in a
5 thumbnail sketch question? You're asking us to
6 consider the value of security-based drills that
7 preclude a radiological release? Is that correct?

8 MR. MAMISH: Let me tell you what we've
9 heard from state and local -- I'm going to answer your
10 question, but let me tell you what we heard from state
11 and local governments.

12 State and local governments have told us
13 that in virtually all of these exercises, biennial
14 exercises, they come in as volunteers, and states have
15 told us that we don't have infinite amount of
16 resources to conduct a 12-hour exercise. What I mean
17 by that is if you -- currently the exercises last,
18 let's say, eight hours, and they involve a
19 radiological release almost in all cases.

20 The 9/11 environment has presented us with
21 some unique challenges that we had not previously
22 considered, challenges that happen before a release
23 takes place and after a plane or some sort of hostile
24 action could possibly take place.

25 So the idea is all these other skills and

1 all these other practices, picking up the phone,
2 calling the NRC, getting responders to, you know,
3 staff up quickly, getting local law enforcement
4 agencies to potentially respond to the site, all these
5 things were not previously practiced in the last 25
6 years, and what we've heard is it is going to be
7 pretty difficult to try to cram everything into a six-
8 or an eight-hour type of an exercise.

9 So, NRC, you need to think about what is
10 it that you want to get your money for? Do you want
11 to emphasize these other skills first and then, you
12 know, focus on release versus no release? Perhaps as
13 we move on with this initiative, the idea was that
14 let's learn how to crawl before we can walk. Let's
15 learn how to walk before we can run, and so the idea
16 is for the next few years, should we have some of
17 these exercises that would not necessarily involve a
18 release? Does that answer your question, Paul?

19 MR. GUNTER: I think it raises issues, but
20 it answers the question.

21 MR. RICCIO: Why would you run a drill that
22 didn't have a release?

23

24

25 MR. MAMISH: Well, you can -- you can send

1 out a response teams to still do dose assessment, to
2 do all the things that you would otherwise do I a
3 radiological release. Why we wouldn't have a release,
4 potentially not have a release, is so that you can
5 focus on the skills that had not been practiced in the
6 last 25 years, like getting the local law enforcement
7 agencies engaged, the FBI, you know.

8 MR. RICCIO: I got you. You know, there's
9 only one concern. I think Eric and I discussed this
10 when we toured the Instant Response Center. If you're
11 doing a security drill, and all of the sudden it turns
12 pear shaped, and you have to get people out, I think
13 you better practice that.

14 MR. LEEDS: We're not -- I'm sorry.

15 MR. RICCIO: Okay.

16 MR. LEEDS: Correct me. We're not saying
17 we're never going to have a release. We're going to
18 get to security drills where you have a release. What
19 we want to practice now are things that the states
20 haven't practiced before. We've done a number of
21 tabletops. We did them out at Vermont Yankee, Diablo
22 Canyon, Duane Arnold, down at North Anna, where we
23 brought folks together, and we had a -- we went
24 through a scenario with a security-based event, and
25 it's something that we haven't practiced.

1 We've been practicing releases for 20
2 some-odd years, and so the states, this raised a lot
3 of questions to the states. All right, some of my
4 police force are the same folks that are going to be
5 manning traffic control points, as the ones that will
6 respond when the bad guys get to the site. How am I
7 going to handle that? What am I going to do?

8 What am I going to do about off-site
9 responders need to get to the site to fight the
10 radiological, the potential radiological emergency,
11 and you have bullets flying across the fence? When
12 are you going to let them in? How are you going to do
13 that?

14 Those are complicated questions. Those
15 require a lot of coordination and well thought out
16 preparation. We want them to practice that. They
17 haven't practiced that. They have practiced
18 responding to radiological emergencies. We've been
19 doing it for 20, 25 years, so in this first step of
20 this program, we want to get them working on new
21 skills and then bring in the radiological release
22 skills.

23 MR. MAMISH: If I can just emphasize one
24 point that Eric said, we are not saying that every
25 security-based exercise is not going to have a

1 release.

2 MR. RICCIO: I understood that.

3 MR. MAMISH: Okay? I just wanted to be
4 clear. Before we can walk, we need to crawl. Before
5 we can run, we need to walk.

6 MR. RICCIO: Okay, I can understand your
7 desire to practice the things you haven't practiced,
8 but I do think you should have them devolve into a
9 release, and despite the fact that you've been
10 practicing it for 20 years, certain people out there
11 think you guys need to improve on what you've been
12 doing for the last 20 years. I think the people
13 around this table think you need to improve what
14 you've been doing the last 20 years, and GAO is one of
15 them.

16 MR. MAMISH: How do you propose that we can
17 improve? What areas?

18 MR. RICCIO: Just because you've been
19 doing, practicing one thing for 20 years doesn't mean
20 you're good at it. You've had major problems in
21 emergency planning at Indian Point, on notification,
22 on things you've been doing for 20 years, so just
23 because you've been doing it for 20 years doesn't mean
24 you're good at it.

25 So practice it. Practice it devolving

1 into a release scenario, because, as we discussed
2 earlier, you're going to have -- at one point you're
3 going to have your security guards or police personnel
4 blocking entry into or toward the site when, if it
5 turns pear-shaped, you're going to want to get people
6 out.

7 MR. LEEDS: We agree. We really agree.

8 MR. RICCIO: Oh, I know.

9 MR. LEEDS: Okay, we agree with the points
10 that you made. We are going to continue practicing.
11 We're not stopping. Biennial drills are going to
12 continue. They're in the regulation. We're going to
13 continue practicing, so we're agreeing with your
14 points there.

15 MS. LAMPERT: My comment -

16 MR. WILLIAMS: Before we move on, Phillip's
17 had his tin up here for a while.

18 MR. MUSEGAAS: I've been behaving myself.

19 MR. WILLIAMS: And so we want to make sure
20 that everyone gets an opportunity to, you know, voice
21 their opinion, and then we'll get to Mary.

22 MR. MUSEGAAS: Okay, I think -- can you
23 hear me? I think as far as scheduling drills that
24 don't result in a radiological release for Indian
25 Point is a huge concern for people in that area. For

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1 the public, I think for local officials, for NGOs like
2 Riverkeeper, it's unacceptable in our terms, because
3 it hasn't been done. Maybe if we'd had one already,
4 and we saw the results of that, we wouldn't be so
5 predisposed to be concerned about this.

6 MR. MAMISH: You're saying for a security-
7 related?

8 MR. MUSEGAAS: A security-related event.

9 MR. MAMISH: Because we've done many with
10 radiological release.

11 MR. MUSEGAAS: Yes.

12 MR. MAMISH: Okay.

13 MR. MUSEGAAS: But you, I mean, you did a
14 security drill in 2004 -

15 MR. MAMISH: Which did not involve -

16 MR. MUSEGAAS: Did not result, and which I
17 don't really understand the reasons for, but I think,
18 you know, a simple question would be are you going to
19 schedule one at Indian Point that involves a security-
20 based event that results in a radiological release?

21 MR. WILLIAMS: I think, Nader, what would
22 be helpful at this point is if we talk about the
23 phase-in approach of what we were doing with the
24 drills and exercise program.

25 MR. MAMISH: Right. Thank you, Kevin. We

1 need to go to Mary after I do. We talked about Phase
2 One and Phase Two. I talked about Phase Three, which
3 will begin sometime this fall. What it will involve
4 is a drill at each nuclear power plant within the next
5 three years. These drills will be security-based
6 drills. Our ultimate vision is that at the end of
7 Phase Three, we would within each six-year cycle at
8 each nuclear power plant, you would have, you would
9 kind of hit the cycle, you know, to use a baseball
10 metaphor.

11 You would have an ingestion pathway
12 exercise. You would have a radiological type of
13 exercise where -

14 MR. MUSEGAAS: You mean safety-based?

15 MR. MAMISH: Yes, safety-based. Thank you.
16 And then you would have a security-based exercise.
17 What we have heard, and I think Paul was at the last
18 Commission meeting on EP, we heard a lot of concern by
19 the Commission about preconditioning responders. We,
20 in fact, have seen it recently in exercises where, you
21 know, we'd be on a drill, and folks would make
22 comments like, "Okay, well, you know, time to take a
23 break. We're not going to have the release for
24 another, you know, 45 minutes or an hour."

25 We want to get out of that mode. We want

1 to get out of the cookie cutter type approach of
2 exercises. Predictability in exercises doesn't help
3 train, you know, responders in nuclear power plants,
4 so that's our aim and our goal.

5 MR. WILLIAMS: Can I ask a clarifying
6 question? Do you believe that the Phase Three drill
7 that Nader's talking about is replacing the biennial
8 exercise?

9 MR. MUSEGAAS: Do I believe that it's
10 replacing the biennial exercise?

11 MR. WILLIAMS: Yes. I'm asking. Or is
12 Nader answering you question?

13 MR. MUSEGAAS: To some degree, but I think
14 the -

15 MR. LEEDS: I think the point you're trying
16 to make is this is in addition to the exercise they
17 already do.

18 MR. MUSEGAAS: Right.

19 MR. LEEDS: This over the three-year
20 period, that's an additional exercise.

21 MR. MUSEGAAS: No, I understand that.

22 MR. LEEDS: Okay. Good.

23 MR. MUSEGAAS: But the fact is, then, under
24 this additional program, you're only going to test,
25 and maybe my math is bad, but you're only going to

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1 test for a security-based event that results in a
2 radiological release once every six years.

3 MR. MAMISH: Following the three-year
4 period. Following the three-year period, so in 2009,
5 we need to work with our partners in DHS. We need to
6 work with state and local governments. We need to
7 work with licensees to try to design a program such
8 that the drills are going to have a broad spectrum
9 events, not only in terms of safety, security, and
10 ingestion pathway, but also in terms of severity.

11 We need to be looking at that. We need to
12 inject some, you know, lack of predictability. We
13 don't want people to know that every exercise, you
14 know, you're going to have this kind of pump fail.
15 You're going to have, you know -

16 MR. LEEDS: Realism.

17 MR. MAMISH: Realism.

18 MR. LEEDS: What's your point, Paul? I'm
19 sorry. Phillip.

20 MR. MUSEGAAS: My point is that I think we
21 would like, from Riverkeepers' perspective, we'd like
22 to see security-based drills happen more often, and
23 your response to me is that, or your earlier comment
24 suggested that the local officials are saying that's
25 too much of a strain on their resources?

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1 MR. LEEDS: How often do you want to
2 security-based drills? You're giving me something I
3 can use with the Commission.

4 MR. MUSEGAAS: Okay.

5 MR. LEEDS: I can say to the Commission,
6 "Okay, you want security-based drills." How often do
7 you want security-based drills?

8 MR. MUSEGAAS: Resulting in a radiological
9 release, or either way?

10 MR. LEEDS: No, what do you want us to tell
11 the Commission? I'm asking you what's -

12 MR. WILLIAMS: Let me clarify.

13 MR. MUSEGAAS: I think you want to have
14 them on -- I don't think you need to clarify. I think
15 you need to have them as often as your resources will
16 allow. I think at least every other year. I mean,
17 once a year would be ideal, but that sounds like
18 that's probably not practicable, because of the fact.

19 And once again, this gets to the point
20 that emergency planning needs to be, in this respect,
21 in these types of situations, needs to reflect some
22 site-specific realities, and the reality here is that
23 Indian Point is a bigger target than most of the
24 plants in the country. It's probably the biggest
25 target among nuclear plants, so the drill schedule

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1 should reflect that, and I think you're -- Nader? I
2 think you're -- I'm sorry -- I think you're able to do
3 that without injecting too much predictability into
4 it. I would trust that you have -- that you're able
5 to do that, so that would be my suggestion.

6 MR. MAMISH: Thank you. Okay, Mary?

7 MS. LAMPERT: Yes, a lot of things have hit
8 me. One is that it's impractical, the resource issue.
9 I think what has to be considered is the consequences,
10 and so therefore, because the consequences can be so
11 severe, there certainly justifies spending the money,
12 as opposed to whining afterwards, "Why are we being
13 dismantled?" you know, or something like that, you
14 know?

15 And so there's that, and I cannot
16 understand why you wouldn't practice the worst case
17 scenario, the most complicated, because if you
18 practice the most complicated frequently enough,
19 knowing practice can get you closer to perfect, that
20 if you practice the worst, then you're well prepared,
21 better prepared, for a lesser event.

22 Therefore, you should be, at minimum, I
23 would think once a year would be appropriate to do a
24 security-based drill off-site, seeing how in actuality
25 there's a coordination. Do you have the resources

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1 that we are told in communities that you have? For
2 example, the town of Duxbury voted against the policy,
3 the prescription, that when there's a problem, we
4 aren't sending our police, our fire, et cetera, to
5 Plymouth. They're staying home and taking care of our
6 people, because our traffic control points, et cetera,
7 are going to be needed.

8 So if this is the case, is there is now
9 only enough people to deal with either going down and
10 help putting out the fire and dealing around the site
11 to help the locals by borrowing, then you better know
12 it, and maybe we can get the National Guard off the
13 border and start training them to deal with this sort
14 of thing, because I think in reality people say, "You
15 know, we don't have enough resources."

16 This is a game," and by dividing it out
17 practicing this, it looks good, so you get an A,
18 because it's simpler test. You practice another type
19 of event, you get an A in that, too, so the public
20 may, you know be being massaged, but we're not stupid,
21 because we realize you need to coordinate the two of
22 them.

23 And I think I would reiterate what Phil
24 said about the public perception of having no release,
25 just hitting, what, something in the parking lot. It

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1 was like, "Are they - ? Give me a break. This is just
2 PR, industry baloney to make it appear that nothing
3 can ever happen." That was the perception. I'm not
4 saying the reality, but you've got to deal with
5 perceptions.

6 MR. MUSEGAAS: But the perceptions, just
7 really quickly, the perception is extremely important
8 when you're dealing with emergency planning, because
9 you guys want people to do what we tell them to do
10 when there's an actual emergency, right? We all do.
11 But if they see drills being undertaken that, to them,
12 whether it's right or wrong have no real basis in what
13 could actually happen, then there's a disconnect with
14 public confidence and with the drills that are being
15 done. They don't believe in the drills, and I'm not
16 saying you should only run drills that the public is
17 going to believe in, but there has to be some
18 connection.

19 There has to be some awareness that the
20 public looks at these things, and they're aware of
21 what's -- they have their own ideas about what is
22 valuable and what is not, and they don't see this as
23 valuable. I'm speaking for Indian Point. I don't know
24 about other plants, but is that -- I hope that makes
25 sense to you guys.

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1 MR. WILLIAMS: If we could, I think what
2 we're hearing is what is the connection between the
3 approach that we're taking to security-based drills
4 and exercises and our current program, and I think
5 that's the piece that we need to address.

6 MS. MILLIGAN: Yes, and I just want to make
7 a comment about that. Our emergency planning is not
8 based on whether or not we have a release. The
9 emergency planning infrastructure that we have is
10 based on a progressively worsening plant conditions.

11 You could have a series of plant
12 conditions that occur, get you to a general emergency,
13 and never have a release. We would still expect the
14 infrastructure to go into place. We would still
15 expect off-site teams to be dispatched. We would
16 still expect protective action decisions to be made.
17 We would still expect locals to make arrangements to
18 move communities, evacuate or shelter or whatever.

19 We expect them to set up and do dose
20 calculations based on what could possibly happen, what
21 could this mean? The release is almost kind of
22 immaterial when you look at it in the whole big
23 picture, because we expect the infrastructure, and
24 indeed, the infrastructure does come into place
25 irrespective of a release. As I said, even with plant

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1 conditions, you can get to a general emergency based
2 on our definition and never, ever have a release.

3 Having said that, we're focused on the
4 six-year exercise cycle, which is the what we call our
5 graded exercise cycle or our FEMA evaluation exercise
6 cycle. Our licensees routinely do a series of
7 exercises or drills, the off-year exercises and
8 drills, where they practice all of these things, work
9 with locals. Locals are involved in many instances in
10 many of their off-year exercises and drills looking
11 at specific things.

12 So it's not just once every two years is
13 the only time we work on this. We work on this
14 routinely throughout the course of the year. I just
15 wanted to make those points, because I think we're
16 missing that part of it.

17 MR. WILLIAMS: Okay, and I wanted to
18 address one other thing. We do our -- and I
19 understand that, you know, Phillip, you're in the
20 Indian Point area, and that's the plant of concern,
21 but I think I want to redirect it more to the global
22 aspects of our regulations and our guidance such that
23 -

24 I think what I'm hearing you saying is
25 that, you know, Paul started out in the beginning, one

1 size doesn't fit all, and how can we take your
2 concerns, and what can you give to our panel up here
3 such that we can make a change or a recommendation
4 that would fit such that we could look at how it would
5 apply to our regulations and our guidance?

6 MR. MUSEGAAS: Yes, I think you guys
7 understand what I'm asking, right? Okay.

8 MR. LEEDS: Can I ask for - I'd like Stacey
9 to summarize.

10 MS. ROSENBERG: Okay.

11 MR. LEEDS: Because I'm getting a little
12 bit lost, but I want to make sure that we heard the
13 message that you want us to give to the Commission, so
14 maybe Stacey can do that.

15 MS. ROSENBERG: Yes, I do, too, and also I
16 do want to go back to the what is the worst case
17 scenario, because I want to have a better
18 understanding of that. When I look at scenarios, I
19 see a lot of different scenarios can get you to the
20 same place, and I don't know that there's a worst case
21 that can encompass everything, and if you're done this
22 "worst case," then you're prepared.

23 I think there are so many different
24 scenarios that need to be practiced, but what we've
25 heard is that we need to practice a release, right,

1 for security. Are we going to schedule a security
2 exercise at Indian Point with a release, which is a
3 question. Have security-based drills at least
4 biennially. Practice worst case scenario. We need to
5 look at the resource issues and understand the
6 resource issues to find out if we have the necessary
7 people, resources, and we need to deal with the public
8 perception and need to factor the public perception
9 into our drills.

10 MS. LAMPERT: Okay, you asked a question
11 that you didn't understand what was meant by worst
12 case. Why a security event with off-site release, I
13 would categorize that as a worst case event, because
14 there has been very little, if any, forewarning.
15 Also, very fast breaking, and with the spent fuel
16 pools involved, certainly a heck of a consequence, and
17 also, because of the recognition that it could be a
18 multiple attack, you know, hit Pilgrim and Seabrook,
19 do a double-header, that hence the equipment to help
20 the personnel, the radiation monitors, the KI supply,
21 the this, that that we hear are going to be borrowed,
22 let's say, from Seabrook and then beef up our now
23 inadequately supplied reception centers for Pilgrim
24 aren't going to be there.

25 So you have to be figuring, okay, where

1 else can I bring things in? How long is it going to
2 take? Also, it's a worst case, because the state
3 police, the local police, the fire, all these other
4 emergency workers are going to have two things to do.

5 One, they could be going down and playing
6 cops and robbers or putting out fires, or I don't
7 know, you know, doing that sort of thing, and then
8 they also have to deal with traffic management,
9 medical, all this sort of stuff, so you're being hit
10 at in many directions, and so that is why I think
11 that's the worst case, and that's why it is a special
12 circumstance, and if you can do that, then you will
13 have lessons learned from, because you can have a fast
14 breaking, major consequence accident that is not the
15 result of a security event. However, it seems that
16 planning has been typically practiced and based on a
17 much simpler and more pleasant scenario, less
18 challenging.

19 MS. ROSENBERG: Okay.

20 MR. WILLIAMS: I want to take the
21 opportunity to capitalize on Dan and let Dan speak,
22 and then I want to try to get back to Paul, because
23 Paul has been patiently waiting over here.

24 MR. WILCOX: Yes, thank you. I just wanted
25 to point out that one of the -- some of the points

1 that you made are exactly the types of things that
2 we're looking at in the comprehensive reviews. Going
3 back to the one size doesn't fit all, we're finding
4 out as we go out and meet with all the organizations
5 for each individual, and which will be accomplished by
6 about May of next year, we bring with us an
7 interagency team including infrastructure protection
8 folks, the emergency preparedness folks from the
9 government's, from the federal government's side. The
10 NRC is there, FBI, and for stations that have water
11 access, we bring in the Coast Guard as well.

12 And we're trying to take a look both at,
13 you know, each individual facility and what their
14 resource constraints are in the type of scenario that
15 you're talking about, but also look at them globally.
16 You know, what recurring themes do we see coming out
17 of each one of these comprehensive reviews?

18 So, just, you know, for going back to the
19 resource issue, you know, with fire and police versus
20 traffic control points and things like that, yes,
21 there's a very real concern in some communities that
22 we need to find ways to beef that up. In other
23 communities, we're finding that they have totally
24 separate groups that handle the traffic control points
25 versus the first responders that would respond to the

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1 site, so we are paying close attention to that.

2 MR. MUSEGAAS: Dan?

3 MR. WILCOX: Yes?

4 MR. MUSEGAAS: Just a quick question on
5 that. So how is what you're learning through these
6 comprehensive reviews getting integrated into the
7 drill program, or is it?

8 MR. WILCOX: Yes, we are taking the results
9 of the comprehensive reviews. We're compiling those,
10 as I said, taking a look at the recurring themes, and
11 as we work more with the NRC and NEI on the proposal
12 for these security-based drills, we want to make sure
13 that the issues that have been raised in the
14 comprehensive reviews are issues that we deal with
15 when determining, you know, how we're going to
16 implement the security-based drills.

17 MR. GUNTER: A couple of questions. Let me
18 start, first of all, by saying that the overall
19 concern of conducting security-based emergency
20 planning drills without release goes back to the issue
21 of public confidence in that the intent is important
22 here in that we're responding to the -- that you all,
23 all of us, collectively, would be responding to the
24 intent to inflict a fast breaking radiological event.

25 That's the intent. It's not to take out

1 te electricity, necessarily. They can do that a
2 number of ways, so what we're looking for is a
3 response, you know, the training and exercising of a
4 response dealing with the intent of inflicting a fast
5 breaking event. So if we're not exercising that,
6 there is the concern that we're missing the point of
7 the intent of our adversary.

8 But the -- I need some clarification in
9 terms of how these security-based drills are
10 conducted. Are they, for example, conducted like the
11 OSREs, where a licensee and the states are given a set
12 of four tabletops, and, you know, an advanced time
13 frame. They look them over, and then you conduct one
14 of those tabletops, or are they given one tabletop
15 where they may already know the foregone conclusion,
16 if there's a release or not, and if that's the case,
17 I'd say mix it up, that if you're going to do a drill,
18 that the states and the responders don't know the
19 intent, or they don't know the outcome, so that their
20 exercise -- so they're entering into exercises that
21 are blind to the conclusion.

22 MR. MAMISH: Yes, none of the drills that
23 we're contemplating or the ultimate vision of having
24 FEMA evaluated exercises would, in fact, involve
25 providing scenarios to state and locals and the people

1 that are participating in the drill, so they're going
2 to be totally blind, whether it's a security event, a
3 radiological event, a equipment malfunction event.
4 None of that is going to be known to the participants,
5 if that answers your question.

6 MR. WILLIAMS: All right. I think we need
7 to keep moving. We've got to wrap it up, and I know
8 you have a comment. I wanted to get to Jim before you
9 got to be - with you, and then we'll go from there.

10 MR. RICCIO: I think Paul clarified what we
11 were talking about in terms of when you run the
12 drills, don't claim that you're practicing whether or
13 not the reactor came with standard airliner impact
14 when you're actually testing whether or not it can
15 withstand a loss of off-site power. I hope that's
16 clear.

17 The second point was, and this came from
18 one of our colleagues in the peanut gallery. We've
19 run into a lot of issues with NRC since 9/11 with
20 security-based information falling into a black hole.
21 If that happens with EP, it kind of defeats the
22 purpose, so just a cautionary. You know, we'd like as
23 much information about security-based emergency drills
24 as possible.

25 MR. WILLIAMS: Eric?

1 MR. LEEDS: Thanks. Put on my glasses so
2 I can read what I wrote. Covered a lot of ground.
3 Stacey summarized for us a number of issues that we
4 heard from you. I didn't hear that she summarized them
5 improperly, so I'm going to assume those are the
6 messages you want us to take to the Commission. If
7 you'd like, we can have her summarize again when I'm
8 done to make sure that she understands.

9 MS. LAMPERT: Can we see a written summary,
10 because I know I intend to submit written materials.

11 MR. LEEDS: We're having this whole meeting
12 transcribed, and we'll put it all out on the web, and
13 you can see all of it.

14 There's a couple things that I'm having,
15 that I'd like some clarification on if you could, and
16 we talked about worst case, and you started to
17 describe worst case, Mary. I'd really appreciate it if
18 you would take the time. I'm asking for you to do me
19 a favor so that I can do a job, tell the Commission
20 what you're talking about with worst case.

21 If you could provide us in writing the
22 worst case scenario, what you think the worst case
23 scenario is, so I can provide that to the Commission
24 and say, "This is what we should be practicing." Now,
25 I don't -- I'm not assuming that you want it on every

1 drill, but on some drills we should do a worst case.
2 Is that correct?

3 MS. LAMPERT: Yes, and Phil, don't be hurt
4 when I say the worst case is Pilgrim in America's
5 hometown and in my neighborhood.

6 MR. LEEDS: Well, let me just, and please,
7 when you give me the thing, it doesn't have to be
8 plant specific.

9 MS. LAMPERT: I'm only -- that was being a
10 joke.

11 MR. LEEDS: Okay. Thank you.

12 MR. GUNTER: Eric, I think we can give you
13 a reference right now to look at the National Academy
14 of Science's report on the consequences of touching
15 off a zircoloy fire in an elevated storage pond.

16 MS. LAMPERT: You know, I'll do what you
17 said.

18 MR. LEEDS: You can both send it to me.

19 MS. LAMPERT: I'll obey.

20 MR. LEEDS: Send me your own, if you'd
21 like, but I'll do the best that I can to represent to
22 them.

23 MR. GUNTER: Pilgrim is, you know, Oyster
24 Creek is as much a concern as Pilgrim.

25 MR. LEEDS: And recall a basis, you know,

1 the basis for how you got there. You talked about
2 realism, so let's try to keep it in that -

3 MS. LAMPERT: Yes, with references, and as
4 you know, Dr. Lyman, who is now at UCS, also did a
5 Chernobyl on that and study, so, you know.

6 MR. LEEDS: Right.

7 MS. LAMPERT: It'll all be done.

8 MR. LEEDS: That'd be very helpful. Thank
9 you.

10 MR. GUNTER: So you don't want us to send
11 you the National Academy of Science's redacted
12 version, do you? You've got the full report.

13 MR. LEEDS: We have that. We have that,
14 and I heard something different than the National
15 Academy of Science from Mary

16 MR. GUNTER: Okay.

17 MR. LEEDS: So, you know, if you all want
18 to work together or something, it'd be wonderful.

19 MS. LAMPERT: Yeah, we will.

20 MR. LEEDS: Whatever. I'd appreciate it.
21 Practicing -- something else that would help us is we
22 talked about the responders, the site, the responders,
23 the federal government all participating and
24 practicing in these events. Remember, that's the whole
25 thing. We don't, you know, we're looking for the

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1 everyone understanding their roles and
2 responsibilities and being able to practice all these
3 different types of aspects to an event.

4 And we talked about with the security
5 drills, there are aspects that hadn't been practiced
6 before, and that's one of the things that we're
7 learning. That's why we're going that way since 9/11,
8 and we want to practice. We're practicing new things.
9 Very, very useful.

10 MS. LAMPERT: Are you practicing
11 interoperability of communication equipment?

12 MR. LEEDS: That's part of the things that
13 we're learning about, and it's fascinating. It's
14 wonderful to watch, and I'll share with you.

15 To digress for a minute, the four
16 tabletops that we did for the beginning of this
17 current program that we're doing, Diablo Canyon we did
18 an aircraft. At Duane Arnold, I think we had bullets
19 over the fence. At North Anna, we had bullets over
20 the fence, waterborne attack, and an aircraft, and at
21 VY -- I forget what we did at VY. We had, I think it
22 was another bullets over the fence, so we're trying.

23 We're practicing different things and the
24 responders, you know, and it was wonderful to watch
25 the law enforcement get together and start, "Okay, how

1 are we going to handle this from all the different
2 townships around, the different states around. We had
3 Massachusetts, New Hampshire, Vermont. How are they
4 going to coordinate their response?

5 And then you've got all the firefighters
6 over here and the police over here. How are they
7 going to interface? And watching that happen was
8 great. The lessons learned from that was terrific.
9 That's what the public needs. That's public health
10 and safety. That's bottom line.

11 Are we practicing this? Do we know how to
12 communicate with each other? Can we work together?
13 And so I saw huge value from these exercises.

14 MS. LAMPERT: Do you have medical people?

15 MR. LEEDS: Yes.

16 MS. LAMPERT: Because that's the whole --
17 but that's just on-site, not off-site.

18 MR. LEEDS: Oh, no. Off-site, too. Here,
19 I'll throw another one at you -- lessons learned. You
20 want us to have lessons learned. This is a great one.
21 Diablo Canyon, we did aircraft, the aircraft attack.
22 Well, what's the first thing that the federal
23 government's going to do when you've got a hijacked
24 airplane and aircraft attack? What did we do at 9/11?

25 MS. LAMPERT: Read a book upside down. No.

1 MR. LEEDS: No, no. I'm serious.
2 Seriously.

3 MS. LAMPERT: I know. I know.

4 MR. LEEDS: We grounded all aircraft,
5 grounded all aircraft. Well, how is that going to
6 help the emergency medical folks get in? They use
7 helicopters to go. Well how are they going to work?
8 Who are they going to contact so that they can put
9 life saving vehicles in the air? I mean, lessons
10 learned. Very valuable. Very valuable. That's the
11 point.

12 But the problem that I'm having and
13 something else I'm going to ask from you is that the
14 value of the release, the value of the release. We've
15 been practicing for 25 years. We continue to
16 practice. Every two years we have graded exercise.
17 Every year we're practicing.

18 Do you have to have -- what is the value
19 of having a release every year when you go through the
20 event, you're still mobilizing all those people?
21 You're still protecting. You're still doing the PAR,
22 the Protective Action Request that's going to mobilize
23 all those. Do you have to have a release every time?
24 Are we preconditioning our responders when they don't
25 need to be preconditioned or shouldn't be

1 preconditioned? Think about it. Give me your
2 feedback for why.

3 MS. LAMPERT: Vermont's an idea. Well,
4 Vermont was an example, because for years, I know we
5 haven't had our monitors at the reception center, you
6 know, tested, nor the buses actually send out to the
7 schools and the people being, kids being put on them,
8 and recently Vermont did, and they did very poorly,
9 and so they had to practice again and again, and
10 that's the point of practicing.

11 MR. LEEDS: And that was independent of a
12 release. You didn't have to have a release to
13 practice that.

14 MS. LAMPERT: Yes, but the point being,
15 then, in planning for a release, these would be the
16 logical, real-based situations that you would test
17 for, not in just an isolated event.

18 MS. MILLIGAN: Usually those things -- just
19 to interrupt here quickly -- you do those things
20 irrespective of whether you're moving to release. If
21 you're at a site area emergency, for example, and
22 you're plan calls for you to mobilize buses and move
23 children, you do that independent of whether there is
24 a release, so Vermont's test had nothing to do with a
25 release. You would still be moving those children

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1 whether or not you have a release, because you have
2 plant conditions or a security event that's driving
3 you to that particular avenue, so the release isn't
4 important.

5 I think what Eric's trying to find out is,
6 ultimately, is why is the release so important to
7 practice? I think that's what we're looking at. Or
8 why is it important to have?

9 MR. MAMISH: And particularly, right now,
10 since we're trying to focus on security issues.

11 MR. MUSEGAAS: Okay, what about on that
12 point, then, if you have a -- if you do a drill
13 without a release, do you have local hospitals
14 practice decontamination of large numbers of people
15 that would be affected?

16 MS. MILLIGAN: Absolutely. You expect all
17 -- expect. I use that word a lot. But all those
18 things are practiced and prepared for, because you
19 don't know, going through the exercise. Since the
20 participants don't know how it's going to come out,
21 they're preparing for all of these different avenues,
22 so all of those things are tested, and I think Dan
23 will tell you all of those things are evaluated.

24 Field monitoring teams are dispatched.
25 They have to turn their instruments on. They have to

1 source check them. Portal monitors have to be turned
2 on. They have to be source checked. All that stuff
3 has to be done whether or not you have a release,
4 because you don't know what's coming. You're
5 preparing. So when we go through and evaluate, that's
6 what happens in our exercises.

7 MR. MUSEGAAS: Right. You're
8 prepositioning. You have the things there, but are you
9 -

10 MS. MILLIGAN: We're ready, but we've never
11 have a release, and that's a good thing, and you may
12 have a release, and the participants don't know that,
13 so they're preparing for all possible aspects. That's
14 what we -- that's how we run our exercises, so what
15 we're trying to understand is why is the release so
16 important to add on to the end? What does that add to
17 the response?

18 MR. RICCIO: What it adds is the interface
19 between when you have to shift from going from a
20 security-based event to an emergency planning event,
21 and where that interface occurs, to my mind, is going
22 to cause some problems, and that should be tested.

23 MR. MUSEGAAS: That transition.

24 MR. RICCIO: The transition from when you
25 got your security-based -- this is what we discussed

1 at the Incident Response Center. All of the sudden
2 you're sitting here trying to keep people from getting
3 at the reactor, and all of the sudden, you know, when
4 you do, you know, or if, you know, God forbid you fail
5 to prevent the terrorist attack, all of the sudden
6 you're in emergency planning aspect.

7 MR. MAMISH: We agree. We agree.

8 MR. RICCIO: Right. Okay. So just -

9 MR. GUNTER: And it's overlapping. You
10 know, I think it's about exercising and drilling
11 overlapping responsibilities. That's obvious, but,
12 you know, I think that one other question I have and
13 concern that relates to public confidence is the scope
14 in terms of your initial, you know, your initial
15 actions are being exercised in what scope?

16 If we're confining initial actions to five
17 miles down wind, for example, and I know we're going
18 to get into this a little bit later, but that's not
19 necessarily worst case scenario. Okay, so when we're
20 talking about exercising the event in a security-based
21 context, and you're asking questions about what's a
22 worst case scenario, we're looking to see if you're
23 actually going to be exercising out, so that you're
24 going beyond an initial response and exercising
25 something that may have, at least out to the ten mile

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1 planning zone so that you're --

2 You know, that's when we're going back to
3 this whole issue of worst case scenario, that we need
4 to see something that looks at what we believe to be
5 a reality of the geography that would be potentially
6 affected.

7 MR. WILLIAMS: I think, Nader, if you'll
8 respond, and then we need to take a little time for a
9 break.

10 MS. LAMPERT: Well, just say release, why
11 release would be important, it ties into why reality
12 is important, and that's been a major criticism of a
13 lack of real reality testing.

14 MR. MAMISH: I think you raised some good
15 issues, Paul, that we'll need to probably dive into.
16 You know, the next discussion I'm, you know, I'm happy
17 to get into those. Should we go to Jim and then wrap
18 it up?

19 MR. WILLIAMS: No, I think Jim was done.

20 MR. MAMISH: Okay.

21 MR. WILLIAMS: I think what we're going to
22 do -- I think Stacey's already summarized. I think we
23 know what the issues are. We're going to take a 15-
24 minute break, and after that time, I believe
25 Commissioner Jackzo is going to come and speak to us.

1 I believe so.

2 MR. MAMISH: What time do you want us all
3 sitting at the table?

4 MR. WILLIAMS: Ten-fifteen.

5 (Whereupon, the above-entitled matter went off
6 the record at 10:00 a.m. and resumed at 10:15 a.m.)

7 MR. WILLIAMS: Yes, at this time what we
8 want to do is Commissioner Jackzo has expressed and
9 interest to talk with you in terms of, you know, it's
10 just very important. Emergency preparedness is a key
11 issue that he's been focusing on, and so when he found
12 out about the meeting, he was delighted to come down
13 here and share his thoughts with you.

14 So what we'd like to do now is take this
15 time to have Commissioner Jackzo share his thoughts
16 and ideas with you as we move forward.

17 COMMISSIONER JACKZO: Well, thank you very
18 much. I'm just going to be very brief. I know you --
19 sounds like you're having a very productive discussion
20 this morning, and I don't want to interrupt the flow
21 of that meeting, but I did just want to come here and
22 just say a few words, one, to really appreciate the
23 work that I think Eric's doing to hold this meeting.
24 A lot of meetings I've had with him he's talked about
25 the importance of interacting with members of the

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1 public and really getting a good sense of the views of
2 a wide spectrum of people, and I think this meeting is
3 really putting those words into practice, and I think
4 it's really --

5 We started out with a really historic
6 public meeting on emergency preparedness earlier in
7 the year, and I really appreciate the fact that the
8 staff is following up with this very focus meeting to
9 get a chance to interact with a smaller group, as
10 they're doing with a variety of groups, as well, and
11 I think that's very helpful as the staff goes through
12 and does a real look at, comprehensive look, at our
13 emergency preparedness regulations.

14 I think, you know, certainly I think one
15 of the legacies of Chairman Diaz is really his efforts
16 to integrate safety, security, and emergency
17 preparedness together and put those things on an
18 equal, really an equal footing at the NRC. I think
19 the comprehensive review that the staff is doing right
20 now of our EP regulations is really a crucial thing
21 and something that I think, again, serves to put into
22 practice a lot of those words about putting all of
23 these things on equal footing.

24 So I think it's going to be a very
25 interesting summer. I think you'll have a -- it

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1 sounds like you've had an interesting meeting so far
2 this morning, and I hope the rest of the day will
3 continue to be very productive.

4 You know, it's always challenging when you
5 have meetings to talk about issues, and one of the
6 challenges, certainly from the NRC's perspective, is
7 really not just to hold the meetings but to really
8 learn from the meetings, and, you know, and I think
9 Eric and his staff have been really committed to
10 really trying to do that, and so, you know, I look
11 forward to hearing what they think from the meeting,
12 what things they've learned, and how those can be put
13 into our entire overview to really reevaluate these
14 emergency preparedness regulations.

15 So, as I said, I'm not really here to be
16 involved in your discussion. I just wanted to come
17 and, again, you know, say that I think this is really,
18 I think, a good meeting or certainly a good effort to
19 have this meeting, and I really, you know, encourage
20 the staff to continue these kinds of meetings and
21 encourage people who are here to continue to engage in
22 dialogue. I think that is really one of the most
23 important things we can do as an agency is continue to
24 talk to people and communicate.

25 So that's all I wanted to say. I will

1 probably sit here for a few minutes and listen to some
2 of your discussions, and I'll turn it back over to
3 Eric now.

4 MR. LEEDS: Thank you so much.

5 COMMISSIONER JACKZO: Certainly, sir.

6 MR. LEEDS: Thank you.

7 MR. WILLIAMS: All right. At this time,
8 we're going to move into a discussion or a
9 presentation by Joe Jones. He's the Program Manager
10 for Sandia National Labs Nuclear Risk and
11 Technological Center Consequent Management Program.
12 He is the Project Manager for the evacuation NUREG
13 currently in its draft form, "Factors Affecting
14 Emergency Evacuations" and the update to NUREG/CR-
15 4831, state-of-the-hour evacuation studies for nuclear
16 power plants.

17 MR. JONES: Where would you like me to be?

18 MR. WILLIAMS: So, yes, if I could get you
19 guys to kind of move to the side, because I don't want
20 to blind you, we'll do it that way.

21 MR. JONES: This could get interesting,
22 because I can't see the slides from here, so I'll just
23 assume we're talking from the same sheet of music.
24 Oh, that would work. Excellent.

25 MR. WILLIAMS: Hold on one second. This

1 has to come up.

2 MR. JONES: As Kevin said, I'm Joe Jones
3 with Sandia National Labs, and we've been working for
4 a number of years now with the NRC on emergency
5 preparedness projects, and I want to talk about a few
6 of those activities today.

7 Just to set the stage for this, NRC staff
8 reviewed NPP, nuclear power plant, the EP planning
9 basis, in light of 9/11, and it completed a review in
10 September of 2003. The basis for protective actions
11 remains the same, but enhancements were identified,
12 including the need to review some PAR guidance for
13 adequacy. Protective Action Regulations is PAR, and
14 I'll be using that term frequently.

15 The three projects that I want to talk
16 about today, two of them are complete. The first one
17 is the identification analysis of factors affecting
18 emergency evacuations. That's available at the web
19 site indicated. It's NUREG/CR-6864, the development
20 of evacuation time estimate studies for nuclear power
21 plants; NUREG/CR-6863, also available at the web site.
22 Those are published documents. And a project that is
23 currently in place is a Protective Action
24 Recommendations project which is a review of NUREG
25 0654 Supplement 3.

1 This is a series of progressive projects.
2 The evacuation project fed the evacuation time
3 estimate project, and both of those then feed the
4 Protective Action Recommendation project, so it's kind
5 of a identify what you can -- you know do some
6 research ahead of time, and then see where
7 improvements might be made in subsequent documents.

8 Let me give you an overview of the
9 evacuation project. This was a study of large-scale
10 evacuations, which are defined for this project as
11 evacuations of more than 1,000 people out of more than
12 one facility. They had to be within the U.S.
13 mainland, and our time frame was January of 1990
14 through June of 2003.

15 During that time frame, we identified 230
16 evacuations, and then we selected a subset of 50 of
17 those for a detailed case study. Now the 230 we
18 profiled at a higher level to support selecting the 50
19 for further analysis. The case study selection was
20 based on a profiling and ranking scheme that was
21 really designed to identify evacuations that
22 challenged the local emergency response capabilities.

23 The major findings of the report:
24 Evacuations successfully protect the public health and
25 safety over a broad range of initiating circumstances.

1 Public evacuations occur frequently. Large-scale
2 evacuations occur on the order of once every three
3 weeks. Smaller scale evacuations occur much more
4 frequently than that.

5 Shadow evacuations do not generally affect
6 the implementation of the protective actions.
7 Emergency workers do report to duty when they're
8 asked. Public education is an important contributor
9 to effective evacuations, and route alerting, which is
10 also known as door-to-door notification, is effective
11 in evacuations.

12 This map just shows you the distribution
13 of the large-scale evacuations that we looked at in
14 the United States, and they are everywhere, and they
15 occur everywhere. There's -- and from this subset,
16 from this set we picked a subset of 50 for further
17 analysis.

18 The principal causes for large-scale
19 evacuations, again, a lot of contributors, a lot of
20 different ways that these evacuations are instituted.
21 Some of the larger ones are flooding, wildfires,
22 hurricanes, railroad accidents, and fixed site haz mat
23 incidents. Now, the difference between -- a fixed
24 site haz mat incident might be an evacuation from a
25 chemical plant, whereas a railroad accident might be

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1 a chemical tanker car that caused an evacuation.
2 Next, please.

3 All 50 evacuation case studies effectively
4 evacuated people from the area and saved lives and
5 reduced the potential number of injuries from the
6 hazard. These are three that we just describe a
7 little bit. There was a Eunice, Louisiana train
8 derailment in the year 2000 in which about 2000 people
9 were evacuated. Hurricane Floyd in 1999 had an
10 evacuation of about 600,000 people, which at the time
11 was large. Centennial Park bombing in Atlanta had an
12 evacuation of about 60,000 people.

13 Once we selected the 50 case studies for
14 further evaluation, we then interviewed emergency
15 responders, the local police departments, the
16 sheriffs, the fire departments. We went to some sites
17 and interviewed folks, and we did a number of these
18 over the telephone, and we did a number through email
19 correspondence.

20 But we generated a questionnaire with over
21 85 questions that addressed issues such as or items
22 such as evacuation decision-making. Who makes the
23 decision to evacuate, the fire marshal, the chief of
24 police, the mayor? Notification process, citizen
25 notification and warning, citizen action, emergency

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1 communications. We looked at traffic movement and
2 control and a whole suite of other things including
3 shadow evacuations, the number of deaths and injuries
4 associated with both the hazard and associated with
5 the evacuation itself.

6 And I think I'd like to point out that a
7 lot of people think that there are a number of
8 injuries associated with evacuation. We had one
9 incidence, the East Bay Hills fire in 1991, where
10 there with deaths associated with the evacuation,
11 narrow, windy roads in the hills of near Oakland where
12 some people got trapped, and the fire was moving fast
13 and overtook the vehicles. That was the only incident
14 where there were deaths associated with the
15 evacuation.

16 As far as injuries associated with the
17 evacuation, there were only two incidents of the 50
18 that we reviewed. One of those was an individual that
19 ran down a police officer that was blocking the path
20 for him to go home. He wanted to go back home to get
21 something. He might have had a very good reason, but
22 nonetheless, he hit a police officer.

23 And then the only other one was an
24 incident in Superior, Wisconsin, where the emergency
25 responders that were manning the traffic control and

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1 that were assisting with the special needs,
2 evacuations of nursing homes, inhaled some of the
3 toxic fumes associated with the chemical release
4 there, and they were treated for irritations. Those
5 were the only two, so there were just not a lot of
6 injuries or deaths associated with evacuations.

7 The following factors were associated with
8 a more efficient evacuation: community familiarity
9 with alerting methods and door-to-door notification,
10 and door-to-door notification was the primary means of
11 notification for the evacuations that we had looked
12 at.

13 Factors associated with a less efficient
14 evacuation were typically traffic accidents, number of
15 deaths from the hazard, not from the evacuation.
16 There is a difference. You know, if a chemical plant
17 explodes, and there are people at the plant that die,
18 that wasn't because of the evacuation, but typically,
19 when an event was that catastrophic, there were other
20 factors that caused it to be less effective. People
21 spontaneously evacuating, and people refusing to
22 evacuate, those also contributed to less effective
23 evacuations.

24 A summary of the findings for this project
25 is that large-scale evacuations occur frequently, if

1 not very frequently, in the United States.
2 Evacuations successfully protect the public. Shadow
3 evacuations do not generally effect the implementation
4 of protective actions. In other words, where they
5 occurred, the evacuations were still able to take
6 place, even though there was a shadow evacuation
7 associated with that.

8 In addition, when we talked to the
9 interviewees, the fire marshals and police
10 departments, they wanted, you know, they frequently
11 stated, and this is all actually in the NUREG in the
12 appendix to this. You can look at these case studies
13 and see some of this information, but there was a high
14 level of communication among agencies, cooperation.
15 I'm sorry.

16 There was use of multiple forms of
17 communications, community familiarity with alerting
18 mechanisms, community cooperation, and there were well
19 trained emergency responders, and we frequently found
20 that tabletops or full-scale exercises had been
21 conducted within weeks or months, certainly, of the
22 actual evacuations that had taken place.

23 As a matter of fact, the Baltimore fire
24 was one of these that we studied. It was a fire in a
25 tunnel, a train fire in a tunnel, and within six weeks

1 of that event, the Baltimore Fire Department had a
2 full-scale exercise of a train fire in a tunnel. It
3 was just coincidence, but the frequency of their
4 exercises had allowed that to occur.

5 The next project that I want to talk about
6 is the evacuation time estimate project. We took
7 information on what we learned from evacuations,
8 public responses, and the emergency response folks,
9 and how they institute evacuations, and we integrated
10 that into this project.

11 Evacuation time estimate is the
12 calculation of the time required to evacuate the
13 public from the affected areas surrounding the plant.
14 Calculations include demand estimations, which is how
15 many people are going to evacuate, a transportation
16 analysis. What types of roadways do you have?
17 Weather conditions and many other items that are
18 modeled in various scenarios.

19 You don't just pick one event. You look
20 at weekday events and maybe during the school year.
21 You look at peak summer events. You look at adverse
22 weather conditions, possibly in the winter if it's a
23 snow area, possibly in the summer if it's a rainfall
24 issue, so there are many, many different scenarios
25 that are run for these to determine different

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1 evacuation times for different conditions.

2 Development of these ETEs requires
3 extensive gathering of data, and the modeling that is
4 used can provide realistic ETEs with advanced modeling
5 capabilities readily available for really all of the
6 analysis, but the modeling does not replace the
7 analyst, and this is found in the guidance document
8 that we put together when we wanted to emphasize some
9 of these. This document was actually an update to a
10 previous NUREG/CR on evacuation time estimates, but it
11 is important to stress it does not replace the need
12 for an analyst.

13 The model inputs can be sensitive, so you
14 need to have a thorough understanding of those inputs,
15 and then the outputs need to be assessed, and then you
16 need to understand the way the model functions, but
17 furthermore, these models can be used to identify
18 recommendations that could improve the ETE. You can
19 actually model scenarios that don't exist in reality.
20 You know, if you put in a new roadway, or if you
21 improved an intersection, what would that do to reduce
22 your evacuation time?

23 There is substantial computational
24 capabilities available. Most of these are now
25 integrated into a geographical information system

1 platform so that many of these are visually run where
2 they're cartoons of the movement of traffic, and you
3 can see red roads where you have congestion and green
4 roads where you have no congestion. You can actually
5 watch the progression of the evacuation on screen.

6 There is uncertainty in the data, and that
7 should be identified and defended through sensitivity
8 analysis, and make sure that you understand what
9 you're putting in. One of the things, a trip
10 generation time, for instance, how long it takes to
11 prepare a family to evacuate. Well, you may canvas
12 your population group and do a sample survey of 100
13 people and find that it takes 30 minutes to, you know,
14 get together, get your family group together, and then
15 evacuate.

16 Well, if you run a sensitivity on that,
17 maybe check 15 minutes, 20, 30, 35, 45, and find that
18 your overall evacuation is still, you know, four or
19 five hours -- it was four or five at 30 minutes. It's
20 four or five at, you know, 60 minutes, well, then
21 you're fine for that particular data point. But if
22 you find that it changed significantly -- let's say it
23 changed to seven hours -- you might want to do further
24 sampling on that particular data point and get better
25 data there.

1 Traffic management. There are
2 advancements in transportation technologies to
3 alleviate congestion, and use of intelligent
4 transportation systems does reduce manpower. Many
5 municipalities, even the smaller local governments,
6 now can control virtually every stop light from a
7 single point, and they don't need to necessarily man
8 every intersection anymore, so a lot of that needs to
9 be taken in to account. It needs to be factored into
10 the models, and you need to run the models the way
11 that the city is going to run the intersections.

12 And the documentation, the methodology,
13 should be structured, sound, and transparent to make
14 sure that you're looking at the data that went in and
15 reconciling it with what comes out.

16 The last project, and let me stress that
17 this is in progress, so we don't really have any
18 conclusions at this point. It integrates information
19 from the evacuation time estimate study, as well as
20 from the evacuation study. This project was initiated
21 in July 2004, to determine if alternative protective
22 action recommendations could reduce dose to the
23 public, and then, subsequently, if it's, if we do
24 determine this, there may be a need to change the
25 federal guidance in NUREG 0654 Supplement 3.

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1 The objective of this project, as I just
2 mentioned, is to identify potential dose reductions
3 through alternative protective actions such as
4 sheltering, alternative types of sheltering,
5 alternative types of evacuation. The scope is to
6 evaluate PAR guidance and consider technological
7 advances, the spectrum of nuclear accidents and
8 frequencies, improvements in ETE technologies, fast
9 breaking or quick-release scenarios, and additional
10 evacuation and sheltering strategies.

11 The study evaluates these strategies that
12 may provide does savings to the public or improve
13 public confidence or facilitate implementation of
14 protective actions. There must be a balance between
15 PAR complexity and benefit. There are situations
16 where you can be too complex. The public ultimately
17 would not be able to either understand or respond with
18 the complexity required for a particular protective
19 action, and we've identified some of those through
20 talking with stakeholders.

21 So the benefit there is not realized I
22 mean, modeling perspective, we might model this and
23 find the greatest dose or even a no-dose situation,
24 but it can't be implemented, just physically
25 impossible, although it can be modeled, so the

1 complexity must be balanced with the benefit.

2 We did use the MELCOR accident consequence
3 code, MACCS, for our modeling. We did have
4 interaction with stakeholders, with a few different
5 states. We talked to the states themselves, the health
6 physics groups. We talked to the emergency
7 responders, the state police, the local police, and I
8 just mentioned we have integrated the results of the
9 evacuation study, as well.

10 The source terms we used to support this
11 study were derived from NUREG-1150. We also looked at
12 improvements in accident progression since 1150, and
13 then we tried to bound the spectrum of accidents for
14 our particular project. We looked at analysis for
15 rapidly developing accidents with containment failure.
16 We looked at analysis for slowly developing accidents,
17 again with containment failure. And we looked at
18 accidents without containment failure, and we ultimate
19 selected four source terms for evaluation.

20 To test the various PAR regimens against
21 the -- we then tested the various PAR regimens against
22 Supplement 3, which is a keyhole evacuation. You
23 evacuate the two miles around the plant, and then you
24 evacuate the downwind in a keyhole fashion. We
25 assessed absolute consequences relative to the -- we

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1 assessed absolute consequences, and then relative
2 consequences for the alternative PARs were evaluated
3 against the standard from Supplement 3.

4 For or MACCS modeling, we used a standard
5 meteorology. We used a generic EPZ, emergency
6 planning zone population of approximately 80,000
7 people, and this is a linear type model, so, you know,
8 it can be scaled to anything. We did use the four
9 source terms, and we did use adverse weather
10 conditions, as well.

11 The alternative PARs that we looked at
12 included shelter-in-place for various times. Now
13 shelter-in-place is where you stay where you're at.
14 You don't go home. If you're at Wal-Mart, you stay at
15 Wal-Mart. If you're at home, you stay at home. We
16 looked at two-, four-, and eight-hour shelter
17 durations. We looked at public sheltering --
18 preferred sheltering. I'm sorry -- for various times.

19 Now, preferred sheltering is larger
20 facilities that afford greater protection, more
21 shielding, maybe public schools, government buildings
22 and the like. We looked at those for two-, four-, and
23 eight-hour shelter durations.

24 We looked at that in the context of if it
25 took you 15 minutes to get from your home to the

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1 shelter or from wherever you're at to the shelter, or
2 if it took up to an hour to get from where you're at
3 to the shelter. There's uncertainty in how long it
4 would take to pack and get to a shelter. We also
5 looked at the fact that these need to be relatively
6 close. You must be able to get to these fairly
7 quickly to achieve a full benefit.

8 We looked at lateral evacuation.
9 Currently, the planning basis is to evacuate radially
10 away from the plant, and so we looked at, you know,
11 lateral evacuation and the effects of that. Can you
12 get out of the plume path more quickly? And we looked
13 at staged evacuations.

14 Evacuate nearby areas first, maybe.
15 Evacuate maybe mobile home parks or other things of
16 that nature, and we looked at those evacuations in
17 four-, six-, eight-, and ten-hour evacuation time
18 estimates.

19 We calculated the relative dose savings
20 for each source term and each strategy and compared
21 that to the standard, and then we ranked the various
22 PAR alternatives. Then we discussed these with
23 volunteer state emergency planning personnel to talk
24 about practicality of implementation, cost benefit of
25 implementation, and then realism. Could these

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1 actually be done?

2 One of the things that has been very
3 consistent is the preferred sheltering issue. It's a
4 great concept when it's modeled, but the proximity of
5 the preferred shelters to the affected population
6 groups needs to be relatively close. If you assume
7 you need 1,000 to 2,000 people, if you assume you're
8 going to send 1,000 to 2,000 people to one of these
9 shelters in an 80,000 population EPZ, you know, you're
10 only evacuating a quadrant, basically.

11 You've got to have at least 20 of these,
12 and they've got to be reasonably well disbursed, and
13 the population groups need to know which ones they go
14 to, so you need to have a sufficient number so that
15 any member of the public, their travel time is limited
16 to a few minutes.

17 Preplanning is an issue with that. You
18 need to understand who owns the shelter, who would be
19 responsible for ensuring access 24/7, at any time
20 during the day, at any time during the year. You need
21 to look at population data, and then when you get
22 groups that size together, you have to look at
23 security issues.

24 You also have to look at traffic control
25 to the shelter, and then, once you get the people

1 there, if you have 1,000 or 2,000 people together,
2 there are requirements when you have large groups of
3 people that congested for ventilation, communications,
4 emergency lighting, rest rooms, and the like, and so
5 if you turn around and then have to ventilate the
6 facility, you're potentially diminishing the benefit.
7 So there were some considerable issues associated with
8 preferential shelters.

9 We looked at practical considerations
10 during implementation, as I mentioned, for the
11 preferential shelters, but we reviewed the existing
12 emergency planning sociological research. What do
13 people actually do? Also in conjunction with the
14 evacuation work that we had done, we looked at the
15 likely public acceptance of alternative sheltering
16 strategies.

17 Preferred shelters. If I've got to get in
18 my car and drive 20 minutes or 15 minutes to a
19 preferred shelter, am I going to keep going? The
20 general consensus to that answer was yes. I don't
21 know anybody that answered that with a no.

22 The ability of local responders to
23 support and coordinate a protective action. We needed
24 to talk to them about their abilities. And then the
25 best methods to communicate the advanced PAR

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1 strategies to the public. Some of these methods
2 really should include additional public awareness if
3 they're selected in the final result.

4 There's some future efforts associated
5 with this project, as well as some additional work
6 that's going to be done. Once we complete this
7 project the NRC will determine whether or an update to
8 0654 Supplement 3 is necessary, and then later this
9 summer, we're actually going to start on a project to
10 look at -- it'll be evacuation research on the recent
11 hurricane evacuations, primarily Katrina and Rita and
12 some of the others from last year, but some of the
13 large-scale emergency evacuations or hurricane
14 evacuations over the last couple of years, but
15 primarily from those two, and map the lessons learned
16 from their preplanning activities, what worked, what
17 didn't work, to NRC's and the NPP regimen of EP
18 activities, and see where there might be room for
19 improvement, and that is expected to start sometime
20 this summer. I think that's it.

21 MR. WILLIAMS: Just briefly, I think we
22 have a little time that if the panel members here had
23 the opportunity to ask at least one question to Joe,
24 we can do that.

25 MS. LAMPERT: Go ahead.

1 MR. GUNTER: I got my card up first.

2 MS. LAMPERT: Beat me to the draw.

3 MR. GUNTER: Joe, thank you very much. You
4 state that Sandia looked at events between 1990 and
5 2003. First of all, how many radiological events did
6 that include?

7 MR. JONES: I should have said that. There
8 were no radiological events, but there were six events
9 that occurred within EPZs that were not radiological,
10 a chemical incident within an EPZ.

11 MR. GUNTER: Right, so my follow-up
12 question would be did you make any assessments with
13 regard to human behavior in radiological events?

14 MR. JONES: Not for that study. That was
15 a fact-finding analysis.

16 MR. GUNTER: Right. It is a concern of
17 ours, and it's backed up by -- I don't know if you've
18 had the opportunity to look at Professor Donald
19 Zeigler's work from Old Dominion University. We can
20 certainly -- actually, we have a request in from
21 Commissioner Merrifield to provide that information to
22 the Commission.

23 MR. JONES: I'm a little familiar with it.

24 MR. GUNTER: Okay, but what Professor
25 Zeigler and others that were involved in that

1 collaborative study found was that a radiological
2 event has a unique impact upon human behavior, and as
3 such, it could affect things like shadow evacuation,
4 as it did at Three Mile Island. That was the study
5 where Professor Zeigler and others looked at. It also
6 impacted delayed and abandoned responses from first
7 responders, so I guess the overall question is how
8 relevant studies that look at chemical, weather, or
9 other types of events are to a radiological event.

10 MR. JONES: I know people use Three Mile
11 Island as the only radiological evacuation. I mean,
12 that was the start of emergency planning, per se. I
13 mean, it was that incident that drove so many other
14 studies, and so much has come about since then.

15 All we can do, because nobody really
16 knows, all we can do is look at the facts, and when
17 you look at the summary of findings and what the
18 emergency planners were telling us, and this is just
19 the last five bullets of this particular set of
20 slides, was that the high level of cooperation among
21 agencies contributed to a successful evacuation, use
22 of multiple forms of communication, community
23 familiarity with alerting mechanisms, community
24 cooperation, and well trained emergency responders.

25 And for the EP program, that's the

1 foundation of that program. I mean, that's why we
2 train, and we have every one of those elements
3 covered. That doesn't mean that it totally outweighs
4 what happened at Three Mile Island, but that was so
5 long ago and the first event.

6 Now these groups are more trained to
7 protect, more trained to respond, and the public is
8 more aware of what they would need to do. We
9 basically found that people do what they're told in an
10 emergency situation, and if they're told to evacuate,
11 we would expect that.

12 MR. WILLIAMS: Okay. Go ahead, Mary.

13 MS. LAMPERT: Yes, I'd also point to the
14 fact of questioning the applicability of a non-nuclear
15 event to a nuclear event in people's fear of nuclear,
16 and I think, really, a study has to be done so we see
17 how people actually are going to behave. Not to say
18 there are not important lessons to be learned, like
19 from Katrina the importance of having extra gas along
20 the highways pre-positioned, et cetera, et cetera.

21 On your time estimate, time estimate
22 studies, I think what's important to know are the
23 assumptions, because I understand the KLD estimates
24 for my particular area were based on your work, and it
25 seems that first the steady state straight line plume

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1 transport model is used, which is not applicable in
2 many sites, and so that's a question.

3 Also, a question is is it realistic to
4 base the finish line or success of evacuation at ten
5 miles where, in fact, radiation isn't necessarily
6 going to stop there? And are you using in you time
7 estimates the two-mile around, five-mile downwind
8 keyhole, and, if so, that's not realistic, either,
9 because I know looking at the KLDs that they suggest
10 there wouldn't be any shadow evacuation outside the
11 ten. Fifty percent of the people from the two- to
12 five-mile, excluding the keyhole, might voluntarily
13 evacuate, thirty-five percent from the five- to ten-
14 mile.

15 Well, this just is baloney, and so it's
16 the assumptions and averaging times, not using
17 holidays, not using commuter times, peak commuter
18 times, not using summer weekends in resort areas.
19 Reactors are located there, and so your numbers come
20 out, but the assumptions are certainly questionable,
21 so how do you plan to deal with this?

22 And also, for sheltering, too, eight hours
23 was the max? Where did that come from? Is that
24 because you can only have enough air without just
25 bringing in the bad air if you have, you know, let's

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1 say a spent fuel pool fire or something where you can
2 have problems longer than eight hours? So are you
3 looking at the max for a building?

4 MR. JONES: I think I heard four questions
5 there, so --

6 MS. LAMPERT: Just beginning.

7 MR. JONES: So I think, I think. First,
8 the gaussian plume. For the ETE, keep in mind the
9 ETE, the evacuation time estimate, is an evacuation of
10 the areas affected, and each site sets up emergency
11 response planning areas, and the evacuation occurs for
12 any ERPA, emergency response planning area, for which
13 the edge of the plume would touch. They typically
14 will evacuate the entire ERPA, so although your plume
15 may be modeled as an oval, the area evacuated is
16 always larger than that.

17 MS. LAMPERT: I understand that.

18 MR. JONES: Okay. Did we stop at ten
19 miles? Well, I would have to defer that to NRC. I
20 mean, the evacuation time estimate was set up to get
21 people out of the ten-mile EPZ. That's the time that
22 the duration needs to be calculated for.

23 MR. GUNTER: So you did go beyond five
24 miles?

25 MR. JONES: We did go beyond five miles.

1 We don't model these. This is a commercial
2 application. We set the guidance for this. Now, I'm
3 familiar with the models. I've used some of the
4 models, but we set the -- you know, we simply were
5 working on the guidance document. We don't model, you
6 know, ETEs for nuclear power plants.

7 I started to write down the third
8 question, and I -- oh, are we using the two- and five-
9 mile rings? You know, that's Supplement 3, and that is
10 potential -

11 MS. LAMPERT: So that was part of your
12 charge?

13 MR. JONES: That's a potential conclusion
14 out of this current PAR project is whether or not that
15 needs or warrants a modification.

16 And then an eight-hour maximum shelter
17 duration, it's not random. The releases for the
18 source terms we used were either concluded or almost
19 concluded at that particular time.

20 MS. LAMPERT: What did you use, anyway?
21 Cesium 137, I assume.

22 MR. JONES: Well, source terms have a
23 number of different things in them. I mean, these are
24 actual source terms from NUREG-1150, and that's an
25 available document, so they were actual. There's a

1 whole suite of radionuclides, but we used -- I mean,
2 the context of it is we used short timing before
3 release with quick releases and long timing before
4 release with quick releases, and then also short and
5 long timing with long releases.

6 So the releases for all the source terms
7 that we used typically allowed us to start saying,
8 "Get the people out," or you would want to move the
9 people at eight hours max to optimize your benefit, to
10 optimize your benefit. If you kept them there any
11 longer, keep in mind, in an incident like this they
12 would still have to pass out through a contaminated
13 area, so there's an optimal time, and it wasn't a
14 random number.

15 MR. WILLIAMS: Okay, we're going to have to
16 get back on task. I apologize for cutting it a little
17 short here. Oh, Jim, you had a question?

18 MR. RICCIO: Just one comment. Back to
19 your keyhole, just to lay out the scenarios, since
20 we're trying to actually address this, since we're
21 actually trying to make emergency planning work
22 better. I just want to throw out this scenario to
23 you.

24 You have an event. We'll use Indian
25 Point, because we know their sirens now work.

1 MR. JONES: Well, they don't yet.

2 MR. RICCIO: Well, they may sometime in the
3 near future. Okay, you have your sirens go off within
4 the 10-mile EPZ, and then you're telling me that
5 you're going to evacuate the keyhole, and no one else
6 is going to leave? Reality check.

7 MR. JONES: We're not saying that.

8 MR. RICCIO: I know, but just, I just want
9 to, you know, when you marry the two, when you're
10 addressing it in your Supp 3 or wherever that is,
11 think about it.

12 MR. JONES: The guidance document for the
13 evacuation time estimate does recommend including
14 potential shadow evacuations in the modeling, and that
15 can be done.

16 MR. WILLIAMS: Thank you, Joe. I believe
17 at this time Nader will get us back on schedule and
18 give us a lead-in into the next topic.

19 MR. MAMISH: Okay. Thank you, Joe, for
20 taking a couple of tough ones for us. For the benefit
21 of those in the audience that may not be fully up to
22 speed on protective action recommendations, I think
23 that terms -- Kevin, did you say you had some?

24 MR. WILLIAMS: Yes.

25 MR. MAMISH: We're going to just distribute

1 some of these terms for those that may not be aware.

2 As you're aware, the licensee is
3 responsible for providing protective action
4 recommendations to off-site authorities based on the
5 condition of the plant. Off-site authorities, in
6 turn, are responsible for making protective action
7 decisions, otherwise known as PADs, based on
8 information from the licensee and on an evaluation of
9 off-site conditions and informing the public of those
10 decisions.

11 Nuclear power plant emergency preparedness
12 programs supported by state and local planners are
13 intended to reduce dose, as we mentioned earlier, in
14 the event of a radiological emergency. We are, as Joe
15 mentioned, evaluating proposed changes or enhancements
16 to our protective action guidance, and we're looking
17 at evacuation time estimates, specifically how they
18 are developed, updated, and used in relation to the
19 protective action recommendations and protective
20 action decisions.

21 While it appears that some alternatives
22 could have merit technically, the sociological aspects
23 of likely public reaction to proposed changes to the
24 PAR guidance have not been fully assessed. This will
25 consist of focus groups at each -- at a few sites and

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1 a telephone survey of a random sample of a national
2 emergency preparedness EPZ population.

3 Let me say that one change to the NRC's
4 protective action guidance is not imminent. Any
5 changes would only be at the direction of the
6 Commission and are expected to have full stakeholder
7 involvement through the normal public comment process.

8 MR. GUNTER: Would that include Federal
9 Register notice?

10 MR. MAMISH: Oh, absolutely.

11 MR. GUNTER: Okay.

12 MR. MAMISH: What we heard at the last
13 meeting from you was that we needed to develop a clear
14 definition of sheltering. You commented that many
15 definitions can be confusing, including the concept of
16 heightened awareness.

17 You pointed out that we should think about
18 educating the public on the concept of sheltering,
19 including what supplies would be needed. Paul, I
20 think you were at the last Commission meeting, and we
21 got that same comment from the Commission, so that
22 would be something that we are certainly going to be
23 looking at.

24 Sheltering, you pointed out that
25 sheltering had been underplayed by the NRC but that

1 the public may be better off sheltering in some cases.
2 And lastly, you pointed out that evacuation time
3 estimates should be updated on a regular basis and
4 that you questioned whether the tools were available
5 that would allow the updates more frequently.

6 So with that, let me know turn it over to
7 you for further dialogue.

8 MS. LAMPERT: Are you organizing this,
9 like, for an evacuation, sheltering, I mean, subject
10 matter? I mean, it's a big field.

11 MR. MAMISH: It's both, sheltering
12 evacuation, as well as all protective action
13 recommendations.

14 MS. LAMPERT: Okay.

15 MR. GUNTER: Right. I'm going to draw back
16 again on a quote from a letter from NEI to NRC dated
17 July 14, 2004, with regard to sheltering, and the quot
18 here is, "Continuous and rapidly changing conditions,
19 lack of or inaccurate instrumentation, and uncertainty
20 of the timeliness and effectiveness of mitigation
21 actions make such a prediction," and this is relative
22 to release rates and decision to shelter-in-place,
23 "makes such a prediction inherently inaccurate.

24 "Moreover, choosing to shelter a
25 population rather than evacuate based on erroneous

1 release duration estimation can result in significant
2 health effects on that population." So has there been
3 a response or a resolution to what NEI has even
4 presented to the questions surrounding sheltering?

5 MR. MAMISH: I'm, quite honestly, drawing
6 a blank on the letter. I would like to look at it
7 before -

8 MR. GUNTER: Okay. Yes, okay.

9 MR. MAMISH: -- I can respond.

10 MR. GUNTER: I will get it to you.

11 MS. ROSENBERG: I think - did that letter
12 -- that letter has to do with the NEI white paper on
13 PAR?

14 MR. GUNTER: Yes.

15 MS. ROSENBERG: Yes, and then we did
16 respond. I think there's correspondence back and
17 forth.

18 MR. GUNTER: Okay, then I would imagine --
19 is there any way that we can get some resolution to
20 that? I mean, have you found resolution to that, to
21 the issue of inaccuracy and uncertainty?

22 MR. SULLIVAN: Yes. Actually, we, I mean,
23 I don't know that we've -- Randy Sullivan. I'm the
24 NRC sponsor, I guess, for the studies that we've just
25 been discussing, and I'm deeply involved in the PAR

1 study.

2 The PAR study is not complete. It's going
3 to undergo review. There's more to do on it, but
4 there are scenarios where sheltering is more
5 protective, irrespective of the lack of, the potential
6 lack of knowledge and changing conditions. In fact,
7 in large early releases, sheltering may very well be
8 more protective for the first two or four hours than
9 a drawn-out evacuation.

10 In certain releases where the duration is
11 known, for instance, containment venting, sheltering
12 is likely to be more protective, unless you can get
13 the people out beforehand. So there are some
14 circumstances where sheltering is more protective.

15 And then further, one might use
16 sheltering. There's an idea that delayed evacuation
17 -- well, I'm sorry. The numbers show that, in some
18 cases, delayed evacuation or staged evacuation is more
19 effective, and if you were doing a staged evacuation,
20 you would shelter others who were waiting their turn
21 to evacuate. I'm just talking the dose projections,
22 not the sociology of it, so there are cases where
23 sheltering is more protective.

24 MR. MUSEGAAS: So you're talking about
25 special needs populations in staged evacuations?

1 MR. SULLIVAN: Well, I wasn't, but just by
2 the physical facts, special needs populations in
3 general are a staged evacuation, and they should
4 shelter while they're awaiting their turn for
5 evacuation. That's exactly right. I mean, you would
6 evacuate them as quickly as you could, but in the
7 meantime, they should be sheltered. Did that help?
8 I don't know.

9 MR. GUNTER: You know, again, there is
10 considerable and significant uncertainty here, even
11 with -- I find it rare that I support an NEI quote,
12 but, you know, I don't mean -- you know, I just find
13 it shocking that we're headed down this road as an
14 alternative, and I don't necessarily dispute that
15 there are -

16 I don't dispute that there could be
17 scenarios where it would be more effective, but it's
18 such decisions are being made in a vacuum. They're
19 being made in a vacuum, as documented by this quote,
20 in terms of you can't say it's going to be a puff or
21 a ten-day fire, and you also -- I think it's in a
22 vacuum of human behavior, assessing how people are
23 going to be told to stay put when what we understand
24 from, again, from the Three Mile Island studies is
25 that they're going to flee, and they're going to flee

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1 far and wide.

2 MR. WILLIAMS: Hold on. What I'd like to
3 do, and I think this is what we've been tasked to try
4 to do, is try to understand, you know, what it is that
5 we can feed into, you know, our process such that we
6 understand what it is that you're, you know, you're
7 trying to get to.

8 How could we look at our, you know, maybe
9 some direction for the PAR study or direction for
10 changes to our guidance, and if you can frame it maybe
11 that way, I think we can understand better what you
12 want us to do.

13 MR. GUNTER: Just first and foremost, you
14 need to do -- you need to look at -- first of all, you
15 need to look at the studies that have been done on
16 human behavior in radiological events, and you need to
17 expand upon those studies.

18 MR. WILLIAMS: Well, I think Phillip was
19 next and then -

20 MR. RICCIO: Actually, it has more to do
21 with his comments about -

22 MR. WILLIAMS: Okay. Go ahead.

23 MR. RICCIO: Okay, I just wanted to, like,
24 to get too far from the source of the question. If I
25 understood you correctly, you were saying that, you

1 know, in certain instances, like with a direct taurus
2 vent, sheltering-in-place may be more appropriate.

3 Unfortunately, you're not going to find
4 this in the transcripts of ACRS meetings, but there's
5 a big uncertainty as to whether when you scrub the
6 radionuclides through the suppression pool, whether or
7 not you're just going to re-release them right back
8 int the environment.

9 Ivan Kaplan made that comment to the ACRS
10 before he was a member of it, when you were looking at
11 the direct taurus vent years ago, so I'm not so sure
12 you'd necessarily want to shelter folk in place
13 because you have a vent.

14 MS. LAMPERT: No, I think it's the other
15 way around.

16 MR. RICCIO: You know, either/or, to tell
17 you the truth. I'm not sure that should be the basis
18 of your -

19 MR. SULLIVAN: Got you. I wasn't trying to
20 get into implementation. I'm just saying that you -

21 MR. RICCIO: I know. I just wanted to
22 point out that there's, like, a lot of uncertainty as
23 to whether or not that vent's going to work.

24 MR. SULLIVAN: I guess -

25 MS. LAMPERT: That's fair. That's fair.

1 MR. RICCIO: That's all.

2 MR. WILLIAMS: Phillip?

3 MR. MUSEGAAS: Yes, I just, on a little bit
4 of a different subject, I wanted to talk about the
5 modeling methodology that Joe talked about in their
6 study. Apparently that's been used. KLD uses it also
7 in their ETE studies. A couple of issues, and you
8 guys want suggestions to bring to the Commission, and
9 here's a couple.

10 One, when you're looking at the evacuation
11 time estimates, and they set up, I think, 16 different
12 scenarios for Indian Point based on weather, time of
13 day, all these types of things. They don't do any
14 estimates during rush hour.

15 MS. LAMPERT: I say.

16 MR. MUSEGAAS: I don't understand why.

17 MS. LAMPERT: I do. Get the right numbers.

18 MR. MUSEGAAS: You know, that's a simple
19 request, either the basis for why they don't do that
20 or to have it done, because I think in our area,
21 again, that's a big issue. Rush hour extends for most
22 of the, actually, most of the day, so except for 15
23 minutes in the morning.

24 That's one issue, and also the shadow
25 evacuation, and also quoting the KLD studies, which I

1 think are based on the Sandia labs or the NRC studies
2 that were done. I think when they look at a two-mile
3 keyhole, five-mile downwind evacuation, and let's say
4 100 percent of the population they're trying to get
5 out, they -- I think they estimate that within the
6 rest of the five-mile zone all the way around, it only
7 varies 20 percent to 40 percent, and the rest of the
8 population is going to shadow evacuate. Those numbers
9 are just completely unrealistic based on other studies
10 that we've talked about here, so that's a concern for
11 us, the methodology of that.

12 MS. ROSENBERG: I'm sorry. Can you say
13 that again?

14 MR. MUSEGAAS: Sure.

15 MS. ROSENBERG: About the shadow evacuation
16 and -

17 MR. MUSEGAAS: Right. If you have the
18 keyhole, and you have a -- let's say you're trying to
19 evacuate 100 percent of the people in the two-mile
20 keyhole, I think they estimate in the KLD studies for
21 Indian Point that only 20 to 40 percent of the people
22 in the rest of the -- let's say even a two-mile circle
23 around the plant.

24 Well, a very low percentage of those
25 people are going to shadow evacuate, the people that

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1 have not been ordered to evacuate, and so the
2 estimates are based on that. That's highly
3 problematic, because the numbers, when you look at
4 these sociological studies, the numbers of projected
5 shadow evacuation are much higher, and so I'm saying
6 the percentage that they estimate in these studies
7 should be higher of how many people are going to
8 shadow evacuate.

9 MR. LEEDS: Can you provide -- I'm asking
10 our technical experts, and we don't know the studies.
11 Can you provide those studies to us?

12 MR. MUSEGAAS: The KLD studies?

13 MR. LEEDS: The studies that show that
14 shadow evacuations are much higher than we -

15 MR. MUSEGAAS: Sure.

16 MS. LAMPERT: It's in the -- give her this
17 picture. It's quite artistic.

18 MR. LEEDS: You have a bunch of those
19 studies, Paul? You can get those?

20 MS. LAMPERT: Yes, we all have them.

21 MR. MUSEGAAS: Yes.

22 MR. LEEDS: All right. Great. Thanks.

23 MR. MUSEGAAS: Sure.

24 MR. SULLIVAN: I'm fairly certain that we
25 reviewed the studies in the course of the PAR, but

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1 we're happy to have them just to make sure we didn't
2 miss anything.

3 MR. WILLIAMS: Okay. You need a point of
4 clarification?

5 MS. ROSENBERG: I guess, yes, just a point
6 of clarification, because I think the guidance, our
7 guidance that is for they are supposed to do, you
8 know, rush hour, ETEs. Correct me if I'm wrong, Joe.

9 MR. JONES: Guidance doesn't specify rush
10 hour.

11 MS. LAMPERT: No, it doesn't, nor holidays.

12 MS. MILLIGAN: I think it says peak.

13 MR. JONES: Peak.

14 MS. ROSENBERG: Peak.

15 MS. MILLIGAN: Peak traffic, and each
16 community determines what's peak traffic. It's not
17 done by the feds.

18 MS. LAMPERT: I know it isn't.

19 MS. MILLIGAN: It all is done locally.
20 Your emergency planning for your evacuations and all
21 that is done on a local basis. It could be the state.
22 It could be a state DOT. It depends on what community
23 or what state you're in, but it's not done federally.
24 It's done on a local basis, so they decide what's
25 peak. In your area I know, for example, July 4th was

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1 considered as a peak holiday weekend.

2 MS. LAMPERT: Not for the KLDs.

3 MS. MILLIGAN: Yes, I can show you the
4 reference and the page number.

5 MS. LAMPERT: I have the KLD.

6 MS. MILLIGAN: I'll show you the page.

7 MS. LAMPERT: 204.

8 MR. MAMISH: I think your point is well
9 taken. We will need to look at the regulations for
10 ETs. It's at the top of our list, but I think you've
11 added an insight that we're going to need to go back
12 and look at.

13 MR. MUSEGAAS: Okay, and just to follow up
14 on that, it's not really on the agenda today, but I'd
15 like to, if we have time today, or I'd like to ask
16 this. Maybe you can take it to the Commission, or we
17 can talk about this afterwards.

18 I'd like to know what the relationship is
19 between the results of these studies, these ETE
20 studies, and the findings of reasonable assurance to
21 recertify our EEPs every year. So, in other words,
22 does this play any role at all in either the NRCs
23 finding or determination as to FEMA's finding or, you
24 know, maybe you can explain that to me.

25 MR. MAMISH: Well, the results of the ETE

1 studies are going to feed -- they're going to inform
2 how we change our regulations, so if our regulations
3 change in terms of how ETEs are done by licensees, how
4 they're, you know, how they work with state and local
5 governments, and how that is fed to the NRC, that will
6 potentially have an implication on how ETEs are
7 considered.

8 MR. MUSEGAAS: But they're not apparently
9 considered in the criteria. Let's say the 16
10 standards in the 5047, they're not -- how do the ETEs
11 fit with that?

12 MR. MAMISH: They fit in terms of the PARs,
13 the protective action recommendations, how protective
14 -- ETEs are considered when the licensee as well as
15 the NRC make recommendations to state and locals for,
16 you know, evacuation, sheltering, et cetera. That's
17 how -- sure.

18 MR. JONES: ETEs will have reasonable
19 assurances.

20 MR. WILCOX: Yes, I was just going to say
21 that those ETEs are part of the reasonable assurance
22 determination, but they're not the total package.

23 MR. MUSEGAAS: I realize that.

24 MS. LAMPERT: We understand that.

25 MR. WILCOX: Okay.

1 MR. MUSEGAAS: But I'm just interested as
2 to what part. I mean, my question goes to the larger
3 subject of, and a larger issue, I think, about what,
4 you know, what 5047 and what the criteria really is
5 for finding reasonable assurance and how much the
6 reality of what could happen on the ground based on
7 these studies, and time estimates are a good example,
8 because they've been done, and for Indian Point
9 there's examples where, if it's a snow day, I think,
10 mid-day in the winter time, and they need to evacuate
11 100 percent of the five-mile zone, it's going to take
12 nine and a half hours.

13 So, to me, that's, and that's in the
14 current RAPP for Westchester County, and that's under
15 a current finding of reasonable assurance, so I find
16 a disconnect there, which I don't understand.

17 MR. WILLIAMS: Yes, I think you need to
18 focus more so as a tool, you know, and in terms of
19 responding to his question, you look at how the ETE
20 gets factored into it from a tools perspective.

21 MS. LAMPERT: Well, my turn?

22 MR. WILLIAMS: Go ahead.

23 MS. LAMPERT: To follow up on what Phil
24 just said, I think what I'm looking for is more
25 regulation, more standards, specific standards being

1 set by the NRC. For reasonable assurance, what's the
2 time to pass the finish line, ten miles, which is
3 absurd, but is it nine hours? Is it ten hours? Is it
4 four hours? Is it three hours? We need to have a
5 standard bar on these issues, what, in fact, the
6 passing grade is for all these elements that go into
7 making up reasonable assurance. That's the general
8 statement.

9 Then, my next opportunity -- I'll take my
10 opportunity to talk about sheltering. I think, coming
11 from a reality point of view, there have been two
12 changes. One, because of 9/11, there is a necessity
13 to focus more on a fast-breaking accident of serious
14 consequence.

15 Also, the NRC and industry are relicensing
16 reactors that are no longer in lightly populated
17 areas. They're in very densely populated areas, and
18 the reality is that the road structure does not allow
19 for a timely evacuation in this type of event, so
20 you're faced with a choice of not relicensing these
21 reactors, a choice you've chosen not to take, or to
22 face the reality that, hey, evacuation isn't an
23 option, so let's go back, puff or no puff, to
24 sheltering, because that's a reality.

25 And so how are we going to approach the

1 subject of sheltering, have specific criteria so we
2 can prevent as much harm to the people are not going
3 anywhere? And so we should be doing things like
4 setting up requirements. Hey, local buildings like
5 schools, et cetera, should analyzed.

6 There should be specificity by the
7 communities of where in these schools, if there's a
8 basement, interior rooms, as far as possible from the
9 roof, all these points. Don't let the little kiddies
10 look out the window. If they see the ground, the
11 radiation sees them. All these principles, and if
12 school is in session, that it is not a public shelter,
13 because you let other people in, then you're letting
14 the radiation in. It's a lock-down. Specifics of
15 this sort.

16 You stockpile them with KI. There are
17 cheap face masks. The town of Duxbury, where I'm
18 from, we bought our KI in 2000 for our schools and
19 shelters. We bought these little Kimberly cutesy
20 masks to put over children's faces so that when they
21 go outside, and explain to the teachers, and explain
22 to the public, "Put on your slicker. Put on as much
23 clothes as you can," and when sheltering's over, get
24 your rear end to the reception center so you can be
25 monitored and washed down, if necessary, and you won't

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1 spread this stuff elsewhere.

2 But, you know, let's not be theoretical
3 about it. This is what's happening in reactor
4 communities like Pilgrim. Trish heard it when she was
5 up there. You know, we aren't stupid. We know what
6 the roads are. We aren't getting out, and so you can
7 try to make the area of evacuation as tiny as
8 possible, and you can try to have these keyholes and
9 pretend people aren't going to know about it, or
10 they're going to stay put and go out in a phased area.
11 It ain't happening.

12 And also I would recommend let's be
13 realistic again and let people know from, let's say,
14 the ten to 20 mile area that, look, when people can
15 get out, we want to get the people at the core out as
16 fast as possible, so we're not going to let you on to
17 the major evacuation routes. It's going to be phased,
18 and so we're telling you that you should be
19 sheltering, too, with KI in an event that, please,
20 dear God, may it not happen, but better to be
21 prepared.

22 You know, I hid under a desk as a little
23 kid, and I don't think it messed up my psyche any more
24 than everything else that did, so, you know, why not,
25 because, quite clearly, from ten to 20 miles in a

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1 severe accident, sheltering without a doubt is going
2 to be helpful. Sitting in a car that's in a traffic
3 jam bar worse than we saw out of Houston, that's not
4 going to help.

5 My 1805 house looks like a sieve, but I
6 can go down to the basement with a case of wine, and
7 I'll be a lot better, so, I mean, and I just think
8 these are very practical measures. Well, I think
9 they're pretty good.

10 MR. WILLIAMS: Why don't we go to Stacey,
11 then back to Jim, and then to Nader.

12 MS. ROSENBERG: I think this is one of the
13 things we are looking at in our review of the EP
14 regulations and guidance and when sheltering may be
15 more effective than evacuation. We want to factor in
16 the evacuation time estimate into that decision. I
17 think the evacuation time estimate is very important
18 to the decision of when to shelter versus evacuate.

19 MS. LAMPERT: And that's why it's important
20 to have your communication equipment include voice
21 messages for the sirens and also to have reverse
22 telephone, instant, like, 911, to be able to get this
23 message instantly across to people. You ain't going
24 nowhere on Route 3, so go to Lampert's basement, you
25 know?

1 MR. MAMISH: I think Stacey addressed my
2 very issue that I was going to raise, so -

3 MR. WILLIAMS: Okay. Jim?

4 MR. RICCIO: I'm not really sure where to
5 bring this up, but we discussed it before the meeting.
6 I keep forgetting about the mike.

7 When I was getting prepared for this
8 meeting, I looked over the 2002 Bioterror Act, which
9 requires KI out to 20 miles. Just wondering why
10 everything I see around here says ten, and who's going
11 to take care of the other ten?

12 MS. MILLIGAN: The Bioterrorism Act
13 excluded NRC from distribution from ten to 20.

14 MR. RICCIO: Okay. That's the easy answer.

15 MS. MILLIGAN: Okay, you have to go to
16 Health and Human Services. Now, they have looked at
17 that issue. They've prepared draft guidance. They
18 published the draft guidance in the Federal Register,
19 went out for comment. They received the comments.
20 They reviewed and revised the draft guidance, and they
21 sent it to the Office of Management and Budget, and
22 that's where it is at this point in time.

23 MR. RICCIO: Okay, what was the rationale
24 for excluding NRC from the 20 mile?

25 MS. MILLIGAN: I don't know.

1 MS. LAMPERT: Congress did.

2 MS. MILLIGAN: I wasn't part of that
3 system. It was done -

4 MR. RICCIO: I just want to know what
5 rationale?

6 MS. MILLIGAN: It was done as part of the
7 Bioterrorism Act, which, in fact, put all of those
8 resources on a large scale with Health and Human
9 Services.

10 MR. RICCIO: Okay. My question, then, I'm
11 just trying to figure out how someone outside the ten-
12 mile EPZ is going to get KI and from whom.

13 MS. MILLIGAN: You can purchase KI at your
14 drug store. You can order it over the internet. You
15 can -

16 MR. RICCIO: The law, and maybe I
17 misunderstood Section 127, but it said, I think it was
18 a shall be available.

19 MS. MILLIGAN: No, it's not. It's make it
20 available.

21 MR. RICCIO: Made -- okay, just make it
22 available.

23 MS. MILLIGAN: Okay, because you really
24 can't make -- you really can't direct the states to
25 force that kind of distribution. You know, the

1 Constitution kind of gets in the way of some of that
2 sort of help.

3 MR. RICCIO: You can't predistribute? Is
4 that what you're saying?

5 MS. MILLIGAN: No, you can only make it
6 available to those communities in the states that
7 request it.

8 MR. RICCIO: That request it.

9 MS. MILLIGAN: We did the same thing, and
10 we've had 21 states request KI out of 33 states, and
11 then we had one Native American government that didn't
12 request that, so we put it out, made it available, and
13 states can or cannot request it depending on what they
14 choose to do.

15 MR. RICCIO: Okay, and what's your position
16 on pre-distribution?

17 MS. MILLIGAN: It's up to individual states
18 what works best for their communities, because you
19 can't do emergency planning for a local community from
20 Washington.

21 MR. RICCIO: Got you. I'd recommend that
22 you pre-distribute to the extent you can.

23 MS. MILLIGAN: It's state. You need to
24 have the states -

25 MR. RICCIO: I know, and I would -- don't

1 have the ability to impress it upon the states except
2 for maybe Vermont or New York from time to time.

3 MS. LAMPERT: Has HSS finalized their
4 implementation guidelines? That's what they were
5 supposed to do.

6 MS. MILLIGAN: Those guidelines are with
7 the Office of Management and Budget right now.

8 MS. LAMPERT: So they've been finalized,
9 and they're there?

10 MS. MILLIGAN: To the extent -

11 MS. LAMPERT: No, they haven't been
12 finalized, have they? No.

13 MS. MILLIGAN: They are -- I'm not sure
14 what you mean. They took all the comments that were
15 in the Federal Register, revised their guidelines,
16 sent it to the Office of Management and Budget for the
17 Office of Management and Budget review.

18 MS. LAMPERT: Oh, okay.

19 MS. MILLIGAN: At that point in time,
20 depending on what happens, they'll either go forward
21 or not go forward or be revised again, or whatever,
22 and that's with the Office of Management and Budget.

23 MR. WILLIAMS: I think, as we talk about
24 this, and it relates to the PAR, you know, we've asked
25 for, like, some type of a recommendation, and I think,

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1 Jim, if you could phrase it differently in terms of in
2 forming our regulations and our guidance, what would
3 you like to see? And I think that's something that we
4 can take back.

5 MR. RICCIO: We would like to see that KI
6 is in the hands of individuals that might need it
7 before the accident occurs. We would like to see that
8 -- and I don't know why NRC was excluded, when it's
9 the only agency that really deals with radiation.

10 MS. LAMPERT: It was intentional.

11 MS. RICCIO: Yes, I'm sure it was
12 intentional, but I would like to see them actually
13 comply with the law. I mean, it just doesn't make any
14 sense to me why the NRC would be excluded from that
15 act, but if you want me to distribute -

16 MS. MILLIGAN: The only thing I could
17 suggest to that is that the NRC isn't really in the
18 drug distribution business. That's really a function
19 that really does belong to Health and Human Services.
20 That's a public health issue is how it's looked at.
21 I'm just telling you how the doctors and all look at
22 that.

23 MR. RICCIO: Okay. Oh, I'm sure, and
24 again, we're for public citizens. We've been pressing
25 NRC to get KI out for the last 20 years, and it was

1 only 9/11 that got you guys moving on it, so -

2 MS. MILLIGAN: Well, actually, the change,
3 just for clarification, we changed our regulations
4 before 9/11, and we were in the process of
5 implementing the distribution prior to 9/11. It was
6 an unfortunate coincidence that the timing occurred
7 that way, but the regulations were published January
8 19, 2001. Our program was initiated at that point in
9 time. I just want to clarify that.

10 MR. RICCIO: That's fine. It just, we've
11 been pressing the government to do this for 20 years.
12 We've finally gotten to the point where you're
13 actually going to do it. We just hope that it's going
14 to be a successful distribution, at least within ten.
15 We're obviously not going to get to 20.

16 MS. LAMPERT: If the subject is potassium
17 iodide, I think you also ought to be sure to integrate
18 that, as part of sheltering, that in public shelters
19 the potassium iodide would be there, also, to have
20 them stockpiled in reception centers and to recognize.

21 You know, I've had conversations with Alan
22 Morris, who owns Ambex, and he's told me that
23 "National stockpile? Are you kidding me?" You know,
24 that's not going to happen, because he is not going to
25 invest in making enough KI, you know, to all of the

1 sudden to get out with a five-year shelf life. That
2 would be a dumb business decision.

3 And so I think -- and then also going
4 through my mind is the recognition if multiple sites
5 are being hit, the state supplies should be upped in
6 that recognition, and there should be a positive
7 public education program involved, because I think
8 there has been sometimes a negative public education
9 program involved on KI, because there is attention.

10 If you talk about the benefits of KI, you
11 might be suggesting a problems, and so I think there
12 should be, just like there are public education
13 campaigns that are positive on getting a polio vaccine
14 or this or that or for the bird flu or whatever the
15 hell it is, that this is simply just something that
16 you have like you have Ipecac syrup. Let's hope it
17 never happens, but put it in your medicine cabinet and
18 stockpile it, but be positive. I haven't seen
19 positive education across the board, not looking at
20 anybody or agency in particular.

21 MR. MAMISH: Yes, this is an excellent
22 issue to dialogue on. When we had the Commission
23 meeting May 2nd, the same issue was raised about
24 educating the public about a variety of issues, and
25 we'll have to do more of that. The difficulty is we

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1 are not in the business of promoting nuclear power.
2 Now, KI is a different story, obviously, but we need
3 to be careful with our messages and how public
4 education is approached from a broad perspective, but
5 that's a good comment.

6 MS. LAMPERT: Oh, I'm full of them. I
7 think notification is on the agenda?

8 MR. MAMISH: Yes, certainly.

9 MS. LAMPERT: Is this part of this or not?

10 MR. WILLIAMS: It depends on how you're
11 looking at it, I guess.

12 MS. LAMPERT: Okay, then back to
13 evacuation. I'd like to bring up the issue of
14 reception centers, and this ties into a desire for
15 more specificity in regulation, because NUREG 0654 J12
16 deals with reception centers, and it states that 100
17 percent of the public should be monitored -- shall.
18 That's a key word. Shall be monitored within 12
19 hours, and that seems to be one of the few
20 requirements anywhere or use of the term "shall," and
21 there should be a lot of shalls.

22 That's my feeling, but I think the key for
23 monitoring, it should be emphasized because this is
24 something that's not only important for the
25 individual's public health, but it's important for the

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1 public health of the community, that dirty cars aren't
2 taken off to Vermont or some other place, and dirty
3 people aren't showering in their aunt's house in a
4 clean spot.

5 And so it serves a very broad purpose, but
6 I think it's been underestimated because of that
7 Krimm's memorandum that stated that, "Oh, we only
8 really have to have reception centers to 20 percent
9 based on a hurricane," and also it was Christmas time,
10 and I think Krimm wanted to get home. I think,
11 actually, that's what happened, but I think we should
12 look carefully at the size of our reception centers
13 and be assured that there are enough monitors, enough
14 capability to decontaminate.

15 I know in our reception center, it's a
16 high school. The parking can't even handle 20 percent
17 of the population. They have four portal monitors.
18 They're going to be throwing us, throwing sling shots,
19 I think, or something. You know, it's ridiculous, and
20 I think at this time, you could be working, you know,
21 with his agency and having multi-purpose reception
22 centers that would, in fact, be of adequate size and
23 capability to deal with a disaster.

24 In my case, in Boston, or if it happened
25 at a nuclear facility, for example, Gillette Stadium

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1 is two acres of indoor space. It has tons of showers.
2 It has a great restaurant and their box. I mean, it
3 has so many things going for it, plus they practice
4 often being a center for emergency planning.

5 So instead of looking at these little
6 reception centers for well behaved accidents and only
7 20 percent of the population, let's look in a broader
8 sense and share and get larger centers in states that
9 can be used in a multi-purpose manner, and all you'd
10 really add here would be the monitoring and the
11 special showering. That's something that makes sense
12 to me, to think in a bigger scale.

13 MR. WILLIAMS: Why don't we let Dan address
14 it, then Stacey.

15 MR. WILCOX: Okay. Yes, I just wanted to
16 -- first of all, I appreciate those comments, because
17 one of the things, well, there's a couple things that
18 we're doing. One, kind of along the same lines as
19 what we're doing here with the NRC, is that we're
20 undergoing our own within DHS taking a look at the
21 evaluation methodology, the requirements, you know,
22 the wills versus the shoulds versus the shalls, so
23 these are good comments for me to take back for part
24 of that.

25 Additionally, and what was my other point?

1 Oh, okay.

2 MS. ROSENBERG: Regional. Multi-purpose.

3 MR. WILCOX: Right. One of the things that
4 we're doing within the -- I don't know if you're
5 familiar with the Federal Radiological Preparedness
6 Coordinating Committee, which represents about 17 or
7 18 federal agencies that have responsibilities in the
8 radiological arena.

9 We are regularly at our meetings taking a
10 look at new methods, be it equipment, be it small
11 reception centers versus larger reception centers.
12 We're particularly getting the Centers for Disease
13 Control and the folks at HHS involved in this, so
14 we've got a pretty good dialogue going between the
15 various departments and agencies that have those
16 responsibilities.

17 I think there is a -- I think there is an
18 awareness that we've got more work to do in that area,
19 that, you know, we're just now trying to get a handle
20 on. You know, when you look at the whole spectrum of
21 radiological capabilities within the federal
22 government, you know, who has responsibility to do
23 what? Who regulates what? And we realize we need to
24 work with our state and local partners closer on that,
25 as well.

1 MS. ROSENBERG: I just wanted to provide a
2 point of clarification on J12, which talks about being
3 able to monitor all people arriving at a relocation
4 center. So what the Krimm memo did was look for the
5 planning, for planning, and saying that approximately
6 three percent to 20 percent of people actually show up
7 at relocation centers.

8 MS. LAMPERT: Based on a hurricane.

9 MS. ROSENBERG: Okay, based on, I guess -

10 MS. LAMPERT: A Florida hurricane.

11 MS. ROSENBERG: -- evacuations, so, but
12 anyway, that's just for planning purposes, and so they
13 should be able to handle all the people who do arrive
14 at a relocation center, so -

15 MS. LAMPERT: So it's Krimm who -- I'm
16 saying get back to reality. Who will arrive?

17 MS. ROSENBERG: Right.

18 MS. LAMPERT: And it should be "shall be
19 prepared for those," not that he imagined from a
20 hurricane, but in reality, who is going to arrive?
21 What is the population that is being served?

22 MS. ROSENBERG: Right. Right, and if more
23 than 20% of the population show up at a relocation
24 center, they will monitor those people.

25 MS. LAMPERT: Yes, but within 12 hours is

1 the issue. It says within 12 hours, and so that's why
2 I was flip by saying a slingshot, but, you know, if
3 you have four monitors, and you have 80 percent more
4 people than you expected to have, the math becomes
5 difficult.

6 That's what I'm saying is let's look at a
7 bigger, more realistic scale, because we have
8 different -- we're in a different environment than
9 when we were projecting off of hurricanes on December,
10 I think it was 23rd, when he made -

11 MR. WILLIAMS: And I think one of the
12 points that Dan is that they're probably going to look
13 at it when they do their review, and they'll
14 incorporate the things that you're saying. He's going
15 to take that back to his management and see what, you
16 know, what they need to do and look at it in terms of
17 how they evaluate, how they look at how things are
18 done.

19 MR. WILCOX: You summarized my comments
20 well.

21 MR. WILLIAMS: Okay, Phillip?

22 MR. WILCOX: Did that answer it?

23 MS. LAMPERT: Believe it or not, because
24 this is still time to talk about this?

25 MR. WILCOX: Oh, yes.

1 MS. LAMPERT: One area that we have ignored
2 are workers, emergency workers, and they're very
3 important, and I know I came out of a meeting
4 yesterday. Oh, my God, it was yesterday, and there
5 were a lot of -- there were a sizeable number of
6 police at that meeting, not that many, but, you know,
7 they happened to pull me aside and say, "You don't
8 really think we're going to stay here, do you? If
9 there's trouble, we're out of here with our families."

10 And I think the reason for that, and I
11 say, "Well, gee, I hate to hear that, but I could
12 understand it," is the protective clothing has not
13 been a requirement for emergency workers. Again, the
14 sleepy little town I'm from, the tax payers decided
15 that we would come up with the meeting from town
16 meeting and pay for, at least pay for some equipment.

17 The licensee didn't want to pay for it,
18 and so I think that has to be -- of course, they
19 don't. They're in a business, and so if they're not
20 required -- if it's not required that emergency
21 workers have adequate protective clothing, then the
22 likelihood of them staying and doing their job is
23 lessened, and it's really unconscionable to have
24 someone out managing a traffic control point in his
25 regular policeman's outfit and not to have at least,

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1 what are they, N9 capability masks to put over their
2 face and, you know, proper Tyvek suit, let's say.

3 That would work, and I think their
4 thinking was, initially, "Let's not do this, because
5 it would scare the public." Well, I think the
6 public's already going to be a little nervous, number
7 one, and number two, you want to prevent disorder, and
8 that requires assurance that your workers are going to
9 be there.

10 These Tyvek suits and N, you know, these
11 masks, are not that expensive, and then those in the
12 fire department or whatever the worker's home base is,
13 it has training for breathing with more serious
14 apparatus, then there should be funds for that sort of
15 thing.

16 Also, I noted, I don't know if it's the
17 same in all communities, but the center that the
18 workers go to to be monitored and decontaminated and
19 dealt with, if their badges indicate that it would be
20 proper for them to leave the scene, the area is
21 directly across the street from the ten-mile line, and
22 that doesn't make a lot of sense, because I don't
23 think you're probably going to get good readings, and
24 also, it is approached by one of the major evacuation
25 routes for that area, so they're going to be sitting

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1 in traffic anyway.

2 I don't know how they expect to ever get
3 back if they aren't that serious, so I think, again,
4 we should be looking at, in partnership, places to
5 send these centers for workers in emergencies where
6 you can have a medical tent thrown up on, let's say,
7 a parking lot at a mall, which is right off one of the
8 highways, but thinking in those terms, and probably
9 about 20 miles would make more sense in my mind, 15 to
10 20 miles, so it's not so far out that they can't get
11 back in a timely manner, or at least they'll survive
12 getting there.

13 You see what I'm saying? But I think the
14 workers are a key area, that they understand that the
15 state, the federal government, is behind them in doing
16 all they can do to assure their safety, and then
17 they're more apt to come.

18 MR. WILCOX: Okay, just a -- not to get too
19 redundant here, but to go back to the comprehensive
20 reviews for a minute, one of the aspects of the
21 comprehensive review does involved looking at the
22 first responders, protection for the emergency
23 workers, and in addition to looking at things from an
24 individual plant and community perspective, you know,
25 we're also taking all the lessons learned from these

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1 reviews and looking at it from a national perspective
2 and seeing where there are gaps that are fairly
3 common, you know, nationwide at multiple plants.

4 And part of what that information is going
5 to be used is to be filtered into some of the grant
6 process through the Office of Grants and Training
7 within the preparedness directive of DHS to, you know,
8 look at, you know, try to be a little bit more need-
9 based and risk-based with our approach to providing
10 grants to the local police and fire community and the
11 other emergency workers, so we are working, you know,
12 in that direction, as well.

13 MR. WILLIAMS: If we can - yes, Phillip?

14 MR. MUSEGAAS: Sure. I want to change
15 gears a little bit, if I can, and go back to
16 sheltering. I wonder how you guys are approaching the
17 issue of, again, going back to site specific
18 differences, and in this case related to sheltering.

19 If you're talking about California and
20 Diablo Canyon, you have a lot of wood frame, single
21 story, maybe two-story houses, that don't have
22 basements. The other extreme, you're talking about
23 New York or Massachusetts where you have a lot of much
24 older construction that may have a basement but is
25 wood frame or is a colonial house from the 1700s

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1 that's very poorly insulated, so you're going to have
2 penetration much quicker.

3 So I'm just wondering how, you know,
4 whether you're addressing that, if you're going to
5 address it in a different way in the future, or how
6 that fits into this re-examination of sheltering, and
7 whether that was part of the Sandia study that was
8 done. I don't know if you can answer that, or you can
9 address that?

10 MR. MAMISH: It is at a high level already.
11 I can't get into the details, but it is considered as
12 part of the Sandia study. Randy?

13 MR. SULLIVAN: Yes, I mean, I hope I'm
14 addressing your concern, but there's a spectrum of
15 housing stock, and it's not intended to be -- I mean,
16 some leak more than others. Is that what you're
17 saying?

18 MR. MUSEGAAS: Yes.

19 MR. SULLIVAN: We used a fairly
20 conservative air exchange in our determinations, and
21 none of this is supposed to be permanent. In the
22 study that we did, we looked at sheltering for a
23 period followed by evacuation, and where it turns out
24 to be protective in certain scenarios, you know, well,
25 that's what the technology says.

1 But you wouldn't stay in that house. I
2 mean, the point is to stay there long enough for a
3 plume to pass or for your turn to come up, and then
4 leave, so, I mean, that's the object there.

5 MR. MUSEGAAS: I guess my concern is in the
6 situation where you have a type of structure that
7 you're recommending sheltering in that wouldn't allow,
8 would allow people to shelter for a very short time,
9 and yet they're facing a long evacuation time that
10 would expose them to a plume. So I'm saying if you
11 get in a situation where you're stuck between poor
12 sheltering choices and a long exposure choice, what
13 are you going to do?

14 MR. SULLIVAN: Well, you know, perhaps we
15 should have said this in the inverse. In the draft
16 PAR study that we have now, evacuation remains the
17 major element. Sheltering has a place, but it's not
18 replacing evacuation. Does that help?

19 MR. MUSEGAAS: Sure.

20 MR. SULLIVAN: And like I say, we're now
21 just talking staff technical work. The Commission
22 will make any policy changes. We don't do that, so I
23 hope we haven't given you the impression that we're
24 replacing evacuation with sheltering. That's not the
25 case.

1 MR. MUSEGAAS: I don't have that
2 impression, but I'm just wondering about the efficacy
3 of sheltering in certain situations.

4 MR. SULLIVAN: We think that in certain
5 situations it's more protective, and some housing
6 stock will be better than others. I realize that, but
7 we've used a kind of conservative mean for leak rates
8 and such.

9 MR. JONES: The other part is to that is
10 when I mentioned the staged evacuations. You may very
11 well -- again, this goes back to the local planning.
12 You may very well want to evacuate a trailer park that
13 is near the facility and shelter, you know, better
14 housing or new housing areas. That's really one of
15 the things that we're looking at.

16 MR. GUNTER: I just want to comment that
17 as, you know, you're in a mode to receive public
18 comment, that clearly the public perception that
19 you're up against is that the sheltering models are
20 there to substitute for inoperable evacuation
21 scenarios, geographic bottlenecks, for example.

22 So rather than deal with the, you know,
23 the questionable ETEs around Oyster Creek that make
24 public protection a, you know, to address public
25 protection, that the public there perceives that this

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1 is just a regulatory fallback to provide, you know --
2 and, you know, point blank to provide regulatory
3 shelter for continued plant operation in an area where
4 that plant should probably no longer be operating.

5 If you're going to address conservatively,
6 you know, protecting populations in the event of an
7 accident or a terrorist attack, you would remove the
8 threat rather than shelter it by, you know,
9 inappropriate regulatory oversight or framework. So
10 that's just perception, okay, and it's wide. It's not
11 me. It's wide public perception.

12 The other -- I wanted to go -- yes?

13 MR. MAMISH: I think you raise a very good
14 point, Paul. I think the burden is on the NRC and
15 Sandia to back up any changes to the regulations and
16 protective action recommendation area with sound
17 science. If we don't have the sound science, we're
18 not going to go down that road, but appreciate the
19 comment.

20 MR. GUNTER: And if you are going to go
21 down that road, you need to look at radiological
22 specific events. Okay? I mean, the public is not
23 going to place stock in emergency planning for
24 radiological events that ignores the, really, the
25 consequences of what happens when you do have a

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1 radiological event.

2 And it's not just Three Mile Island. I
3 wanted to read a, just into the record, quickly, the
4 correspondence from Dr. Zeigler with regard to
5 workers, and what he states is "social surveys of
6 personnel with assigned emergency duties indicate the
7 strong potential for role conflict to interfere with
8 the management of a nuclear emergency.

9 "In research that my colleague, James
10 Johns, and I did on Long Island, New York, in the
11 vicinity of the Shoreham Nuclear Power Station, we
12 found some potential for role conflict. We asked a
13 sample of school teachers, bus drivers, and volunteer
14 firemen the question, 'What do you think you would do
15 first if an accident requiring full-scale evacuation
16 of the population within ten miles of a power plant
17 were to occur?'

18 "Sixty-eight percent of firefighters, the
19 number being 291, and 73 percent of the bus drivers,
20 the number being 246, indicated that if a major
21 accident were to occur, family obligations would take
22 precedence over emergency duties. The consequences
23 would be delayed response to the emergency.

24 "When my colleague surveyed the public
25 school teachers near a nuclear power station in

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1 California, he found that less than one-fourth would
2 first help evacuating the students from the designated
3 danger zone." That's Johnson's study in 1985.

4 So it seems that when the question is
5 focused on radiological events, the survey results are
6 dramatically different than if you look at
7 meteorological events or other kinds of things, so
8 again, we're just going to emphasize and reiterate
9 that please, as you look at your re-evaluation, make
10 them radiological specific.

11 MR. MAMISH: Another good comment. Thank
12 you, Paul. I think as part of the -- as we move
13 further into our PARs study, will be doing just that.
14 We are going to be doing a survey, and we will -

15 MR. GUNTER: Could I suggest that the
16 publicly accepted sociological, sociologists, be
17 included in that so that you have -- you know, we can
18 provide some - if you're looking for public confidence
19 in your surveys, let's come to the public interest
20 groups to help you flesh out that work. You know,
21 we're willing, and it will help address the
22 credibility issues, as well as to provide some
23 independence, some necessary independence, as this
24 issue is revisited.

25 MS. LAMPERT: Yes, I'd echo that, and I'd

1 also say that the logic that any survey, and there
2 should be surveys of workers, it must be done that
3 they're anonymous, because the workers are not going
4 to give a fair answer because they're afraid of losing
5 their job, and also, often they get losing extra pay
6 if they don't lose their job, so if it's not an
7 anonymous survey, you are not going to get an honest
8 answer, number one.

9 Number two, I think it's very important to
10 assess anonymously the feeling, how many workers
11 probably are going to show up, because then it will
12 force getting those who have no other choice, like the
13 Guard involved, et cetera, so you have a backup, and
14 the backup fits into the training, because without the
15 backup, and if they haven't been trained, then they
16 aren't going to know what's, you know, what to do, and
17 they're going to be learning on the job, which is what
18 you don't want in a disaster situation. So I think it
19 ties in there, and they have to be, obviously, LOAs
20 and MOUs with the backup groups that you have.

21 And another area that hasn't been brought,
22 which, brought out, is recognizing increasingly we
23 have more latchkey children, because there are
24 increasing numbers of broken homes, and the economy is
25 such increasing number of both members of the family

1 working, which means that children are home without
2 transportation, and I think it's very important that
3 your, you know, your time estimates, just everything,
4 and transportation providers, realistically, and
5 notification deals with this growing population of
6 latchkey children.

7 And my last point, everyone's focused on
8 gasoline. Well, it fits into evacuation in a big way
9 of the importance of practicing and having logical
10 locations for large supplemental gas trucks on the
11 major evacuation routes and also in sleepy communities
12 like mine, where there are no 24-hour gas stations,
13 and, unfortunately, there could be a disaster at
14 night. And so it's important in that situation to
15 assure that there are letters of agreement and a whole
16 process put in place so that people can get gas before
17 they get on the highway, run out of gas, and screw up
18 the whole thing worse than it is.

19 MR. MAMISH: Mary, I think I missed my
20 stake.

21 MS. LAMPERT: What I was talking about? I
22 forgot, too.

23 MR. MAMISH: No, the issue of backup.

24 MS. LAMPERT: Oh, backup.

25 MR. MAMISH: That's -- I got all the

1 others. The backup is the one I missed.

2 MS. LAMPERT: Oh, that was a really
3 important one. Okay, we started out with Paul talking
4 about Zeigler's survey of workers, and you weren't
5 getting 100 percent. Then the second point was the
6 importance of doing an anonymous survey, so you have
7 a real fix on the number of people you can count on.
8 Then you have your need, and you have your reality.
9 Who is going to supplement the difference?

10 Then you go to the National Guard or who
11 are these people that are able and have to come, and
12 then they have to be part of ongoing training so they
13 do not all of the sudden arrive to supplement what's
14 needed and not know what to do.

15 MR. MAMISH: Got it. Thank you.

16 MR. WILLIAMS: Okay, we're going to have to
17 quickly move to your next point, and then we're going
18 to have to summarize. Yes.

19 MR. MUSEGAAS: My point was about, and this
20 goes back to Joe, I think, you talked about in the
21 study doing these focus groups and telephone surveys
22 in this, coming this summer. I'm just wondering are
23 you going to interview first responders as part of
24 that, and are these interviews going to be anonymous,
25 taking into account Pixie's comment?

1 MR. JONES: Yes.

2 MR. WILLIAMS: All right, I'm not trying to
3 gloss over it, you know, but I'm just saying if
4 there's other issues that we'd like to discuss, you
5 know, we can do that, but otherwise, we're going to
6 move over into the summary.

7 MR. GUNTER: Could I just -- how do you -

8 MS. LAMPERT: What about notification?

9 MR. GUNTER: How do you address anonymity?

10 MR. WILLIAMS: No, no, no. That's after
11 lunch.

12 MS. LAMPERT: Oh, I forgot about lunch.

13 MR. GUNTER: I mean, how -- can you just
14 give us a quick sketch of how you, how is anonymity
15 assured?

16 MR. SULLIVAN: Sure. There's two actions
17 that we're talking about, the focus groups, which
18 essentially surface issues for the purpose of a public
19 survey, and the focus groups are, you know, groups of
20 people who come together. I mean, we think we know
21 some issues that we want to go out with a public
22 survey, but the focus groups inform the process and
23 maybe show us things we don't know. That's being done
24 by a professional group who does focus groups.

25 We will not see names. Although there

1 will be a name record, it'll be expunged. That is not
2 going to be part of the permanent study in anyway.
3 Some of those focus groups will be emergency workers.
4 Others will be citizens of EPZs.

5 All those records get properly handled by
6 this group. We're reviewed their plans to handle it,
7 and it's, you know, keeps confidentiality, and then it
8 moves into a survey, which is a public telephone
9 survey and, once again, there's demographic data but
10 no, you know, names and addresses and such.

11 MR. MUSEGAAS: Can I just, a very quick
12 follow-up on that? Have you already selected the
13 areas that you're going to do these surveys?

14 MR. SULLIVAN: Yes, we have, but it hasn't
15 really been announced yet, so we need -

16 MR. LEEDS: Yes, I don't know that they've
17 been confirmed all the way up through NRC management.
18 We have a couple potential. We have a group of
19 potential places, but I think those need to be
20 completely vetted with NRC management before we go
21 forward.

22 MR. MUSEGAAS: And your methodology for how
23 you selected them will be -- I mean, I assume, I mean,
24 because there are plants like Indian Point, and
25 there's plants like Duane Arnold, and -

1 MR. SULLIVAN: Yes.

2 MR. LEEDS: Yes. Yes. Very well said.

3 MR. MUSEGAAS: Are you going to do some of
4 each, or are you going to -

5 MR. LEEDS: That was our intention, to do
6 a couple of each, a representative sample of the
7 different type of EPZs that are out there.

8 MR. MUSEGAAS: Okay.

9 MR. LEEDS: Exactly. Exactly, and that's
10 something else that needs to be vetted all the way up
11 through NRC management.

12 MR. WILLIAMS: Okay, so I think at this
13 time Stacey's going to summarize this session.

14 MS. ROSENBERG: All right, I'm going to try
15 to summarize what I heard if I can read my own
16 writing. One of the things is to look at the studies
17 done on human behavior in radiological events and
18 expand upon these studies. Modeling methodology and
19 ETEs for Indian Point, you have 16 different scenarios
20 that don't include rush hour. Our guidance specifies
21 they need to do peak traffic situations, but for some
22 reason they don't do rush our.

23 MR. MUSEGAAS: I'll get you the study to do
24 that.

25 MS. ROSENBERG: We'll look into that. We

1 need to estimate the percent of shadow evacuations in
2 ETEs. Did I get that right?

3 MR. MUSEGAAS: And methodology, yes,
4 modeling of ETEs.

5 MS. ROSENBERG: Okay, how ETE studies play
6 a role in the determination of reasonable assurance.
7 Okay, I think we talked about that, and maybe that was
8 already resolved, but -

9 MR. MAMISH: I think the way I addressed
10 it, we can still look at it.

11 MR. MUSEGAAS: It's a bigger issue.

12 MR. MAMISH: But the way I addressed it was
13 ETEs, PARs, feed into PARs, which helps the states and
14 local governments in evacuations.

15 MR. MUSEGAAS: Mary talked about setting
16 standards or setting outside limits on what, as an
17 example, if you have an ET that comes out with a
18 result of 14 hours to evacuate the two-mile zone,
19 then, you know, what does that mean, as opposed to
20 four hours, you know? How does that fit in?

21 MS. ROSENBERG: Right, and I think I had
22 that point next.

23 MR. MUSEGAAS: Okay. That's fine.

24 MS. ROSENBERG: So I had more specific
25 regulations or standards on ETEs, okay. In terms of -

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1 MR. LEEDS: Okay, can I -- I'm sorry. Can
2 I enlarge that a little bit?

3 MS. ROSENBERG: Yes.

4 MR. LEEDS: I heard it a little
5 differently, and maybe you all can concur. Standards
6 for passing grade with regard to reasonable assurance,
7 not just ETEs. I thought that you were looking for
8 more towards -

9 MR. MUSEGAAS: That's the bigger issue, I
10 think.

11 MS. LAMPERT: The bigger issue.

12 MR. LEEDS: The bigger issue is reasonable
13 assurance, as opposed to ETE.

14 MS. LAMPERT: And getting grades for each
15 component. It's sort of like are you going to get
16 your diploma this year or not? Did you get an A in
17 course one, an A in course two? That's what we're
18 looking at. ETE was one of the classes.

19 MR. LEEDS: Very well said. Right. Right,
20 and I'm -- that's how I interpreted it. Okay. Good.
21 Thank you.

22 MS. ROSENBERG: Okay, in terms of
23 relicensing, we need to look at sheltering more, and
24 we need to set up specific requirements for
25 sheltering, have specific criteria. I think, Mary,

1 you talked about that.

2 MS. LAMPERT: Well, I wouldn't put it in
3 those terms, because emergency planning, regrettably,
4 is not a component in looking at whether to relicense
5 or not. The reality is reactors are being relicensed,
6 and they are now in areas that are densely populated,
7 so we have to deal with the reality, and the reality
8 is there are too many people to evacuate in a timely
9 manner, and so therefore we have no other choice. You
10 either don't relicense, or you look at sheltering.

11 MS. ROSENBERG: Okay, so we're looking at
12 that in terms of increasing populations is what your
13 concern was, right? Okay.

14 MR. LEEDS: Is that right?

15 MS. LAMPERT: Yes, because when many of
16 these reactors are now not in lightly populated areas,
17 and so a timely evacuation is not possible in many
18 circumstances, so therefore we have only one other
19 choice.

20 MS. MILLIGAN: Can you just help us out and
21 put some bounds on timely for us?

22 MS. LAMPERT: What do you mean bounds on
23 timely?

24 MS. MILLIGAN: Well, you say timely.
25 Fifteen minutes? Two hours? Three hours? Just some

1 idea so we understand where you're coming from on
2 that.

3 MS. LAMPERT: You would want to be able to
4 get the population out before the plume is chasing up
5 their tail pipe, right? And so I cannot say how fast
6 it would be, but I know, for example, during commuting
7 hour, I can have two or three hours to get to Boston.
8 That's why we bought an apartment in town, and that's
9 not during a nuclear accident or July 4th or this or
10 that, and so I can't tell you how fast you have to do
11 that, obviously, with your modeling on what is the
12 fastest release. What, 20 minutes? And then what
13 could happen?

14 MS. MILLIGAN: Would it be fair to say,
15 then, timely would be before plume arrival?

16 MS. LAMPERT: Yes, and also we have a
17 dispute going, obviously, on how far the plume is
18 likely to go, and we feel it's more likely to go
19 beyond ten miles from meteorological studies, for
20 example, and so it's to get out of danger for the
21 population is our goal, as opposed to passing an
22 imaginary line. And so to sit in a car and -- yes, I
23 think you understand it.

24 MS. ROSENBERG: Okay, then we had some
25 discussion on potassium iodide, and there was

1 discussion potassium iodide needs to be in the hands
2 of individuals prior to any need for it. To integrate
3 KI into public shelters --

4 MS. LAMPERT: And reception centers.

5 MS. ROSENBERG: And reception centers, and
6 that we should have a positive public education
7 program on KI.

8 MS. LAMPERT: Yes, I'd also add just
9 institutions. Make it broader, because it also should
10 be in schools. It should be in group homes, detention
11 centers. I think prisoners are the only group to have
12 them, actually, but in institutionalized, you know,
13 populations.

14 MR. RICCIO: There's a reason this is the
15 shape it's in from Ambex, because it fits into an
16 envelope. They're even thinking about -- they wanted
17 to try to distribute through the post office, as well,
18 which might work past 20 miles or something. I'm just
19 trying to figure out what I tell my people when they
20 call and say, "I'm not within the ten miles, but I
21 still want to get KI. Who do I call besides Ambex?"

22 MS. LAMPERT: Put it on their Christmas
23 list.

24 MS. ROSENBERG: Okay, we talked a lot about
25 reception centers and more specificity in guidance for

1 reception centers. I'm not going to go into the
2 detail. This is just overall. Emergency workers need
3 to -- for protective clothing for emergency workers,
4 we discussed that the comprehensive reviews are
5 looking at this, and it will go into, be filtered into
6 DHS' Grants and Training Office, hopefully, but that's
7 something we'll look at.

8 Site-specific differences in sheltering,
9 for example, you know, certain houses with wood frame,
10 no basements. You asked a question about looking into
11 those site-specific differences and sheltering.

12 MR. MUSEGAAS: How that's reflected in the
13 guidance.

14 MS. ROSENBERG: Okay, how that's reflected
15 in the guidance. There's the public perception that
16 sheltering is there as a substitute for areas with
17 long evacuation time estimates, and we need to do
18 something about that public perception.

19 Also, as we reevaluate evacuation, we need
20 to look specifically at radiological events for the
21 sociological aspects such as emergency responders
22 showing up and the percent of the people who are going
23 to be shadow evacuating. Okay?

24 Surveys for the emergency workers should
25 be anonymous. I think we've learned that they are

1 going to be, or plan to be, and the importance of the
2 gasoline and supplemental gas trucks and letters of
3 agreement with service stations. We discussed that,
4 and also that we may need backup emergency workers,
5 depending upon -- because of the radiological events,
6 if they don't show up.

7 MS. LAMPERT: Then the biggy that was
8 mentioned that goes here, the necessity to
9 reevaluating the steady state straight line plume
10 transport models. I mean, that's huge.

11 MR. GUNTER: Could I just ask again that
12 the sociological surveys that you're going to be doing
13 be made up of sociologists who have been doing this
14 work from an independent perspective? I mean, the
15 need for independence, I think is -

16 MR. SULLIVAN: When you're saying surveys,
17 the survey's done on the telephone.

18 MR. GUNTER: Well, okay, the evaluations.

19 MS. LAMPERT: Or designing the questions.

20 MR. GUNTER: Independent evaluations.

21 MR. SULLIVAN: The evaluation of the data
22 that we collect via the -

23 MR. GUNTER: The evaluation of things like
24 human behavior.

25 MS. LAMPERT: And also reviewing questions,

1 because the answer you get often depends upon,
2 obviously, how the question was framed.

3 MR. SULLIVAN: Oh, okay. I see what you're
4 saying.

5 MR. MAMISH: Let me recap what I think
6 Randy was trying to say so that we can have a common
7 understanding of your issue here, Paul. I think what
8 we were trying to say is that we're going to get a
9 group of first responders, fire chiefs, et cetera,
10 that will develop from EPZs around several nuclear
11 power plants, that we'll develop an anonymous survey
12 and make the survey around nuclear power plants,
13 collect the data, and analyze it. What is the -- help
14 us understand -- what is the part that you're
15 referring to?

16 MR. GUNTER: That there have been a number
17 of studies to date that have been conducted by, well,
18 certainly by industry, but there have been a number of
19 studies that have been done such as the work of
20 Professor Zeigler and others, and if --

21 I think that what we're struggling with,
22 again, is the credibility issue and the public
23 confidence issue, and you can facilitate that by
24 incorporating social scientists who have done work and
25 who have, you know, and, in fact, it has been

1 critical, but incorporate, as part of your
2 transparency, to incorporate publicly accepted social
3 scientists into the review.

4 MS. MILLIGAN: We already do that within
5 the institution.

6 MR. MAMISH: I'm sorry?

7 MS. MILLIGAN: We already do that within
8 the institution.

9 MR. MAMISH: Well, I think the answer to
10 your question is we're going to be doing that. That's
11 clearly part of the study, okay? So I don't -- there
12 is not a disagreement here. Am I -

13 MR. SULLIVAN: I think we're doing what
14 you're asking. I mean, it's -- we should just take the
15 comment. I mean, I think we're doing what you're
16 asking us to do. There'll be sociologists who conduct
17 focus groups for a living.

18 MR. GUNTER: Is that going to be -- is
19 there going to be a transparency to your process as
20 to who's doing your reviews?

21 MR. SULLIVAN: Sure. It'll all be published
22 when it's finished.

23 MR. MAMISH: Yes, we're going to have a
24 NUREG, and it's all going to be published.

25 MR. WILCOX: I'd like to have it peer

1 reviewed. Perhaps there's something -

2 MR. GUNTER: That's a good, you know,
3 that's what we're suggesting is that a peer review be,
4 that the peer review incorporate critics. Thank you.

5 MR. MAMISH: That's precisely what we're --
6 perhaps we didn't make that clear. Okay.

7 MR. GUNTER: And there are a number of
8 established critics out there.

9 MR. MAMISH: That's precisely what we're
10 planning. We didn't communicate that clearly.

11 MR. WILLIAMS: I think we're all in
12 agreement.

13 MS. LAMPERT: And just also, could you guys
14 respond by the end of the day how you justified the
15 30-minute notification for the airplanes? Because
16 you're asking us why it should be more than 30
17 minutes, and so this is going back to the beginning.
18 I thought we were getting ready for lunch.

19 Before we end the day, you asked us what
20 problem we had with the 30-minute notification of an
21 airplane when we were talking about it, and so we'd
22 like to hear your justification for the 30 minutes.

23 MR. MAMISH: In other words, why 30?

24 MS. LAMPERT: And ask the question back,
25 why'd you pick 30?

1 MR. MAMISH: Okay. That's fair.

2 MR. RICCIO: Guidance. Let's do that.

3 MS. ROSENBERG: I'm sorry, what?

4 MR. RICCIO: I think I asked you that
5 initially. I think we've asked them a couple of times.

6 MR. MAMISH: That's fair. We can give you
7 that answer.

8 MR. RICCIO: Are we finished summing up?
9 Is there a couple of things that didn't quite make the
10 list?

11 MR. WILLIAMS: That's where I was going, is
12 if Stacey done.

13 MS. ROSENBERG: Yes, I was finished, so I
14 must have missed it.

15 MS. LAMPERT: Oh, I'm sorry.

16 MR. RICCIO: Okay. What you need on there,
17 Stacey, is that, like, no one -- I don't believe any
18 of the four of us have much confidence in your
19 keyhole.

20 MS. ROSENBERG: Oh, we didn't discuss the
21 keyhole.

22 MR. RICCIO: I know, but we can just toss
23 that in, as well.

24 MS. LAMPERT: That's a biggy. That's a big
25 one.

1 MR. RICCIO: They should know that. Can we
2 just be aware that we don't have any confidence that
3 the keyhole's going to work? You're going to set up
4 a siren at ten miles, and then you're only going to
5 evacuate two.

6 MS. ROSENBERG: Well, wait a minute. Can
7 we just discuss that for just a minute?

8 MS. LAMPERT: Oh, yes.

9 MS. ROSENBERG: Okay, I just want to just
10 --

11 MR. WILLIAMS: Well, actually, when we get
12 into our notification piece, that may be a -

13 MR. LEEDS: Can we park that and take it in
14 the afternoon, because I think it deserves some
15 discussion.

16 MS. ROSENBERG: Can we save the keyhole for
17 the afternoon?

18 MS. LAMPERT: Yes, and it -- because you
19 want two parts, people's behavior, number one, and
20 then you want a analysis of weather conditions.

21 MR. MAMISH: Okay. We've got them on the
22 board.

23 MS. ROSENBERG: We're going to talk about
24 that after lunch. Okay.

25 MR. LEEDS: Anything else that we missed

1 that you want to -- in her summary? No?

2 MR. MAMISH: Okay. I guess we're going to
3 adjourn for -

4 MR. LEEDS: Wait a minute. Let's give it
5 to the facilitator to do his job.

6 MS. ROSENBERG: We're paying him big money.

7 MR. WILLIAMS: Yes, I think we should try
8 to get back here about ten after one, and that would
9 keep us on schedule.

10 MS. LAMPERT: What time is it now?

11 MR. LEEDS: And what are we going to
12 accomplish this afternoon?

13 MR. WILLIAMS: This afternoon we're going
14 to talk about the alert notification system, and we're
15 going to talk about the keyhole concept, and we'll,
16 you know, have the comments from the public, and then
17 we'll summarize.

18 MR. LEEDS: Questions from the public.

19 MR. WILLIAMS: Then we'll adjourn.

20 MR. LEEDS: Okay. All right.

21 MR. WILLIAMS: So about ten after one.

22 (Whereupon, the above-entitled matter went off
23 the record at 12:13 p.m. and resumed at 1:20 p.m.)

24 MR. WILLIAMS: We need to get on point.
25 We've had a good discussion this morning, and now as

1 we're going back to this afternoon, we want to talk
2 about the alert notification system, or public alert
3 and notification, and then we want to hit the couple
4 of parking lot issues that we have over there, and
5 then comments from the public, and then Eric Leeds
6 will wrap us up. That's the goal, so at this time,
7 I'll put you back in the hands of Nader, so he can key
8 up the next topic, and we can just continue to move
9 along smartly.

10 MR. MAMISH: Thanks, Kevin. Again, by way
11 of background, power plants are required to have an
12 alert notification system to alert the public within
13 the ten-mile emergency planning zone around the plant
14 that an incident might have occurred at, and that the
15 public should listen to the emergency broadcast
16 stations for instructions and information. In most
17 cases, licensees meet this requirement with siren
18 warning systems supplemented in some cases with mobile
19 route alerting, tone alert radios, and other alerting
20 devices.

21 The determination for the acceptability of
22 siren design is governed by the Department of Homeland
23 Security using its design document FEMA Rep 10 guide
24 for the evaluation of alert notification systems for
25 nuclear power plants. The NRC staff has been in

1 discussions with the Department regarding sirens and
2 alert notification system in light of the potential
3 for terrorist attacks and the August 14, 2003 grid
4 failure. We have been coordinating efforts with DHS
5 to alert, to address concerns of the staff, as well as
6 the Commission and members of the public.

7 Paul has already got his -- federal
8 regulations and guidance currently do not require any
9 organization or governmental agency to have an
10 emergency backup power supply to their sirens. You're
11 probably aware that recent legislation has been
12 enacted, which addresses sirens and their independence
13 of AC power.

14 DHS/FEMA was directed to update the
15 outdoor warning system guidance document to reflect
16 the technological advances that have taken place since
17 the document was originally published in 1980 and to
18 specifically reflect the benefits of using voice
19 technology to address all man-made and all natural
20 type incidents, including the act of terrorism, and to
21 require that all warning systems be operable in the
22 absence of AC supply power.

23 DHS has completed -- pardon me -- its
24 review for outdoor warning system guidance and has
25 drafted a technical bulletin for its replacement, that

1 is the replacement of, ultimately, FEMA Rep 10. The
2 NRC will continue to work with DHS during the final
3 development of its outdoor warning system guidance
4 document. If the NRC determines that changes to its
5 regulations are needed as a result of the DHS
6 technical bulletin, the NRC will go through its normal
7 processes of rule making, public notice, and so forth
8 to address the backup power for the existing alert
9 notification systems.

10 Again, when we met the last time, what we
11 heard from you was that alerting systems should have
12 redundancy. Don't just rely on outdoor sirens. We
13 heard that backup power was necessary, and voice
14 messaging should also be considered. We learned that
15 we should consider reading boards along the highways
16 to display messages, and finally, we heard that
17 systems should be upgraded so that there is less
18 reliance on first responders to notify the public
19 during emergencies when they will have other duties.

20 So, with that -

21 MR. WILLIAMS: Mary, we'll allow you to go
22 first.

23 MS. LAMPERT: Yes, you summarized most of
24 my comments, which is good. What I would hope that
25 there would be requirements, not suggestions, that

1 would come out of your studies, because I think the
2 licensees have a responsibility to the shareholders,
3 and so they are not going to spend money for
4 notification, you know, improvements in notification
5 systems unless required to do so. That's just a
6 reality.

7 And I think you missed, probably because
8 I never said, the capability of low frequency-
9 dedicated radio capability is another potential in
10 some areas. You know, like when you drive through
11 tunnels, somehow you're important radio station is
12 interrupted with things you don't want to know, but it
13 could be useful in an emergency situation.

14 And also, the importance that the buses
15 and vans for transportation dependents, that the
16 drivers of those vehicles have some type of way to
17 immediately notify them, because I know when I go into
18 my local supermarket, the school bus drivers who
19 aren't driving -- you know, they have time off --
20 they're in the malls. They're in here. They're in
21 there, everywhere, and if they don't have pagers or
22 cell phones, they cannot be contacted, and so the
23 whole concept of transportation dependent is not going
24 to be served.

25 Last on notification is a more subtle one

1 of having route signs put in communities in the ten-
2 mile EPZ. I know we have in our community, for
3 example, and a neighboring community just blue signs
4 saying "Pilgrim evacuation route." This is so
5 transients or folks will be thinking about planning
6 and know where to go in an emergency situation. So if
7 you could have standard route signs of this sort, it
8 would be helpful.

9 And I would also think that these upgrades
10 in emergency, in notification, many of them are multi-
11 hazard, and so therefore there could be a sharing of
12 expense, because you need reverse 911 for many, many
13 reasons.

14 MR. WILLIAMS: Yes, I'd like to hear from
15 Nader, and then I -- he doesn't have his tint up. I
16 want to hear from Dan, and then come to Paul, and then
17 back to Eric.

18 MR. MAMISH: Yes, one issue that I should
19 have had in my notes for the benefit of everybody just
20 to get a common understanding of where we are, roughly
21 speaking, we've got about one-third of our licensees
22 that are in higher risk areas, that is, areas that
23 could be in the path of a hurricane, mainly southeast
24 and in the

25 MS. LAMPERT: Northeast.

1 MR. MAMISH: -- northeast and a little bit
2 around Texas and Mississippi and other, elsewhere.

3 That one-third of licensee has backup
4 power. We have about another third of our licensees
5 who, as a result of upgrading their systems, their
6 siren systems, have noted that some of the parts for
7 these sirens are no longer available, and so what
8 they're doing is they're doing an overhaul of the
9 sirens. Manufacturers currently provide the new siren
10 systems only with backup, so the second third is going
11 to be betting there.

12 And then the third part of the licensees
13 currently don't have backup power. Obviously, as DHS
14 moves forward with its technical bulletin, there will
15 be an opportunity for that third category of licensees
16 to consider replacing their systems. As you know,
17 public policy making does take time, so DHS is working
18 hard on the issue, and I think that that's something
19 I should have made earlier.

20 Anything else to add, Dan, that I missed?

21 MR. WILCOX: Just one thing that I don't
22 know whether -- how much public knowledge this is yet
23 or not, but we're hearing that there's pending in the
24 very near future is going to be some sort of direction
25 coming out. Don't know yet whether it's going to be

1 an executive order or a Homeland Security Presidential
2 Directive that will provide some standards, you know,
3 regulatory standards in terms of alert notification
4 systems.

5 MR. MAMISH: For all hazards.

6 MR. WILCOX: For all, yes. Yes. Thank you
7 for adding that. Yes, definitely for all hazards, so,
8 as Nader mentioned, we have been working on our
9 technical bulletin, and I will say that basically all
10 the laundry list of items that have already been
11 mentioned are all things that are being considered and
12 will be mentioned in the technical bulletin.

13 I think this is certainly one area -- I
14 guess the term one size doesn't fit all was mentioned
15 earlier today. This is definitely an area where, you
16 know, the characteristics of the surrounding community
17 is going to play into what types of warning systems
18 are used, and I would -- personally, I would hope that
19 we don't get -- you know, I think we need to set some
20 absolute standards in terms of what the capabilities
21 need to be, but not necessarily say you have to use
22 tone alert radios, or you have to use, you know,
23 reverse 911, or you have to use sirens, whatever.

24 But we're definitely looking at all these
25 options, and one of the things that we have done for

1 the licensees and the communities in the past is we've
2 done a technical review whenever they come in for
3 proposals for changing their system, and we want to
4 make sure that all these new technologies are
5 incorporated into our technical reviews, as well.

6 MR. WILLIAMS: All right. Thank you.
7 Paul?

8 MR. GUNTER: Thank you. Well, I would hope
9 that the recognition is there for maintaining, for
10 establishing and maintaining both outdoor and indoor
11 notification. When we say one size doesn't fit all,
12 I certainly don't want to have that characterized that
13 we could ignore one set of notification systems over
14 another, because I think the public notification
15 process needs a similar defense in depth approach so
16 that we're going to cover the affected areas, and
17 certainly, I think a piece of that is also mobile
18 alert, so that people in their cars, since we are such
19 a transient population, have an opportunity to be
20 alerted, and we did mention the message, the text
21 message boards, being able to incorporate that.

22 I guess I have a couple of questions with
23 regard to how, you know, how long -- first of all, how
24 long have we been in a review of the process for
25 changing, for updating, so perhaps Dan would be the

1 most appropriate to address that question, but I think
2 that, certainly, the issues of public notification and
3 the lack of power, backup power, you know, frankly I'm
4 surprised how it escaped the licensing process, but
5 that's, you know, that being a given, now we're in
6 this security mode. It seems that we now have these
7 concerns that we expedite an efficient system for
8 public notification.

9 So my first question is is how long have
10 we been in that mode, and also, how is the
11 transparency going to be provided so that we begin to
12 address the public confidence issue? Frankly, right
13 now I think that DHS/FEMA has more impetus now to
14 address public confidence and particularly
15 notification.

16 So what kind of transparency is DHS going
17 to provide in order to build a public confidence
18 factor as it goes through the comprehensive review and
19 this technical bulletin? And I assume the technical
20 bulletin will be available as draft, or is it going to
21 come out as -- I mean, is there a peer review process
22 for the technical bulletin, as well?

23 MR. WILCOX: I don't know for sure. I
24 believe some of the peer review has already occurred,
25 but I would anticipate another round of that,

1 considering that we're, you know, we're going to have
2 to go back and look at whatever comes out of the White
3 House now on this, so I would anticipate at least one
4 more round of peer review.

5 Going back to your other questions, as far
6 as how long have we been in a review status? Quite
7 frankly, I'm not sure. I know it's been a while and
8 actually has been too long. I would have to say that.

9 And your other question about
10 transparency, I think this. It's going to be -- it
11 boils down to the public education. We've talked
12 about that quite a bit already here today. We need to
13 make sure that the, you know, if we have all these
14 nice systems, you know, that's all well and good, but
15 if the public doesn't know where they're getting their
16 information from and, you know, and what buttons to
17 push or, you know, bells to ring or whatever, then the
18 technology isn't going to do us any good, so I think
19 that the public education is key to -

20 MR. GUNTER: Is that before or after? I
21 mean -

22 MR. WILCOX: I think it's both. I mean, I
23 think before we have to make sure that the public
24 knows, you know, when the siren goes off, if it's a
25 siren, you know, what are they supposed to do? Or if

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1 they have a tone alert radio, and that goes off, what
2 are they supposed to do? And I personally really lean
3 towards a lot of the systems that allow you to provide
4 a voice message, but that's just kind of my personal
5 opinion on that.

6 But there has to be, you know, the whole
7 deal, whether it be through the calendars and, you
8 know, or public meetings where, you know, folks from
9 the state and the counties, you know, will stand up in
10 front of the public and say, and provide the
11 instructions and the advice and, you know, internet
12 web sites. You know, the whole gamut of public
13 education needs to happen before the event occurs so
14 that the public knows to do the right thing after or
15 during an event.

16 MR. GUNTER: Just so I'm clear, though, and
17 I'll finish, is it your sense that DHS' technical
18 review of public notification systems includes both
19 outdoor and indoor notification systems, not either/or
20 but that it incorporates both, and frankly, as, you
21 know, as we've been engaged for some time now, the
22 need to make sure that there's backup power for those,
23 for actually all notification systems?

24 MR. WILLIAMS: Before you answer, what I
25 think -- I want to make sure we understand your

1 question. Is their guidance going to be applicable?
2 Maybe this is a better question. I don't know --
3 applicable to the nuclear power plants such that it
4 includes both indoor and outdoor?

5 MR. GUNTER: Right, well, I mean, in the
6 context of this meeting, we're talking about
7 radiological emergency, and rather than dilute it in
8 all hazard kinds of notification systems, you know,
9 we're specifically concerned about public notification
10 in the context of radiological hazard, so yes, thank
11 you. Just so that we're, you know, clear that we're
12 still looking at upgrading outdoor and then
13 supplementing that with indoor.

14 MR. WILCOX: I think you have to take a
15 holistic approach to it. You have to look at both the
16 outdoor and the indoor. I know that the bulletin, the
17 way it's drafted now leans towards the outdoor portion
18 of alert notification, but there are certainly
19 references made and recognition that the indoor has to
20 be a part of it, as well.

21 MR. GUNTER: As well?

22 MR. WILCOX: Yes.

23 MS. LAMPERT: Yes.

24 MR. MAMISH: I should point out -- I'm
25 sorry.

1 MS. LAMPERT: No, go ahead.

2 MR. MAMISH: I should point out that I'm
3 aware, and maybe Dan, you can elaborate on this a
4 little bit, that the FCC, the Federal Communications
5 Commission, is partnering with the Department of
6 Homeland Security on a program, a pilot program,
7 whereby indoor alerting would actually occur, such as
8 cell phones, televisions, radios, reverse 911, and so
9 forth. Is that?

10 MR. WILCOX: Yes.

11 MR. MAMISH: Okay.

12 MR. GUNTER: And again, that's a supplement
13 to outdoor alerting systems?

14 MR. MAMISH: Yes.

15 MR. WILCOX: I would say just it's part of
16 an overall warning system. I couldn't say it
17 necessarily supplements sirens, because in some
18 instances sirens aren't going to be your primary
19 alerting mechanism. It's all one piece.

20 MR. GUNTER: And backup power's in that
21 technical bulletin?

22 MR. WILCOX: Backup power is definitely in
23 there.

24 MR. WILLIAMS: All right. Mary?

25 MS. LAMPERT: Yes, what I'd like to say, I

1 heard, Nader, you use the word "consider," but I think
2 it's important that there be a requirement that
3 messages, the message of a problem, will be received
4 within 15 minutes or less.

5 The standard is received, because if the
6 message is sent and not heard, that there should be a
7 requirement that the message notification is received
8 within 15 minutes or less, because I think to date the
9 focus has been that you get -- you pass the standard,
10 if you will, if the message is sent, and it's sort of
11 like, remember when you were a kid, you know, if a
12 tree falls in the forest, and nobody's there to hear
13 it? That's what it's all about, so if the
14 notification goes out to activate the sirens, but they
15 don't have backup power, so in reality no one's
16 hearing it, then that's not a pass.

17 If I happen to -- I'll let you in on a
18 secret. I sleep inside, maybe because I live in New
19 England, and you cannot hear the sirens inside, so,
20 therefore, the notification has not been received, and
21 that is the key in planning, whether people receive
22 the notification, and if I'm driving my car, I don't
23 notice very many sirens on Route 3 or what have you,
24 then I have not received the information.

25 So I think that is the point that you have

1 to come up with, a multiplicity of methods so that
2 people will receive the message in the way that they
3 live in actuality, which is they work and sleep
4 typically in a house or an apartment, and they drive
5 their automobiles, and if the power is out, too bad,
6 so sad. They have to be able to receive it. That's
7 the point.

8 MR. WILLIAMS: Why don't we go with Dan,
9 Nader, Eric, and then let's get back to Phillip here.

10 MR. WILCOX: Phil, you've been very
11 patient. I applaud you. I guess I'll go back to I
12 forget which of the two terms you used, whether it was
13 multiplicity or redundancy, but I think those are the
14 principles that have to apply.

15 MS. LAMPERT: Yes, I think a redundancy,
16 something doesn't work, then something's --

17 MR. WILCOX: Yes, I mean, you know, there
18 may be some things that the government does right and
19 the government does wrong, but I do know that the
20 government recognizes that the vast majority of us do
21 sleep inside, and so we can't rely, you know, totally
22 on the sirens, and, fortunately, we have, you know,
23 new technology available to us that we can, you know,
24 that we should be using other alternatives other than
25 just sirens, and I would agree with you on that.

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1 MS. LAMPERT: Yes.

2 MR. MAMISH: What I was whispering to Eric,
3 just to make sure that the record is clear, you're
4 referring to the message being received from the state
5 and locals to the public, not from the licensee to the
6 NRC, correct?

7 MS. LAMPERT: Correct. I'm very, and I'm
8 very selfish. I do care about you, Nader, because I
9 think you're a very nice person, but I would rather be
10 notified in an accident than you.

11 MR. MAMISH: Thank you. Thank you. I do
12 want to ask a question. You talked about receiving
13 the message. Can you help us understand. Maybe we
14 haven't, all of us haven't thought about it long
15 enough, but how would the verification occur in terms
16 of receiving the message?

17 MS. LAMPERT: Well, let's not be silly.
18 I'm not going to run a poll on how many people in the
19 town of Duxbury sleep outside. I mean, that would be
20 silly. I mean, common sense tells you that people
21 sleep and work inside, so therefore there has to be a
22 notification. There is testing. Obviously, it
23 involves testing, just like you have tests of the
24 sirens in a staged, periodic period to see whether
25 they work, and people are asked, if they read the

1 local paper, if they can't hear it, if they didn't
2 hear it, to call, but very few people go along with
3 that.

4 You have a test, just like many school
5 systems, for example, have rapid dialing. To talk
6 about -- it's so absurd -- to talk about soccer
7 practice is cancelled, but we don't have rapid
8 dialing, because there's a disaster occurring, but
9 they test it. They send out a message periodically,
10 and so any technological system you have, you
11 periodically test it, and then that's part of
12 educating the public, as you talked about.

13 MR. MAMISH: I understand. Thank you.

14 MR. MUSEGAAS: I just want to ask -- I just
15 want to make that -- ask for some clarification. The
16 technical bulletin that you're speaking about for ANS,
17 so that doesn't require backup power to siren systems.
18 It's a bulletin that recommends that they go to that
19 eventually, or can you just clarify what the
20 requirements or lack of them are?

21 MR. WILCOX: At this point, the technical
22 bulletin is viewed as a guidance document, not a
23 requirements document. I think that rather than
24 putting that in the technical bulletin, because the
25 technical bulletin is also an all-hazards document,

1 it's not specific to a radiological incident.

2 I think that's -- I think that comes more
3 into play when, as we talked about earlier, when we go
4 back and do this review of our evaluation methodology,
5 and we start, you know, talking to the communities and
6 to the licensees, you know, about requirements, I
7 think we're going to have to, if we want to use a
8 requirement like that, we're going to have to write it
9 into the regs.

10 MR. MUSEGAAS: So what's the reluctance for
11 doing that? You know, there seems to be a caution
12 against requiring backup power to sirens, maybe not to
13 DHS, but to DHS, but it should be NRC -

14 MR. LEEDS: And that's why this is -- let
15 me bring you back to what I talked about at the very
16 beginning. If you recall, we have a lot of different
17 stakeholders, and we've been meeting with our
18 different stakeholders. We have industry
19 stakeholders, state and locals, DHS. The federal
20 family doesn't always agree, so we have to put our
21 heads together on that, and certainly we have you all
22 as the NGOs.

23 We've gotten a very different message.
24 Just so that you're aware, we've gotten a very
25 different message from the NGOs about whether this

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1 should be a requirement or not.

2 MR. MUSEGAAS: NGOs?

3 MR. LEEDS: I'm sorry, from the states, as
4 to whether these should be required. The states are
5 pushing against this, making this a requirement. They
6 say, "Don't make this a requirement. We want to
7 decide what's best for our state and our situation,
8 the characteristics around our plant," something Dan
9 had talked about before.

10 So when we present this to the Commission,
11 we're going to present that the NGOs think that these
12 should be requirements. The feedback we've gotten
13 from state and local representatives is to not make it
14 a requirement. It's going to be a policy decision
15 made by the Commission, but that's the hesitancy to
16 say these will all be made requirements. Not all the
17 stakeholders share your views.

18 MR. MUSEGAAS: But the state can't require
19 it. The NRC would have to be the one that would
20 require licensees to put in backup power. The states
21 can't require state-by-state licensees to put backup
22 power in the sirens, right?

23 MR. WILCOX: That's true.

24 MR. MUSEGAAS: Then we're kind of going
25 around in circles. I mean -

1 MR. WILCOX: No. No. You don't understand
2 what I'm saying.

3 MR. MUSEGAAS: Okay.

4 MR. WILCOX: What I'm saying is we have
5 distinct groups of stakeholders that want different
6 things. All right, the Commission will make a policy.
7 They'll make a decision as to whether it's a
8 requirement or not. We're going to present that you
9 all think that it should be a requirement. State and
10 local may not. Does that make sense?

11 MR. MUSEGAAS: That makes sense. Okay.

12 MR. WILCOX: All right. It's not a
13 decision I'm going to make or anyone at this table.

14 MR. MUSEGAAS: Right. Right. And just a
15 quick follow-up to that, as well, I mean, I think the
16 concern from our perspective on the lack of backup
17 power to all, the lack of a requirement for that, is
18 that if we're talking, especially in this meeting,
19 about security-based events, then I think there are
20 scenarios where off-site power is taken out under a
21 terrorist attack, which, if you lose off-site power --
22 I mean, I may not know this technology very well, but
23 you're going to lose a lot of these systems that would
24 notify people.

25 You're going to lose -- so the one-third

1 of the plants that don't have backup power, they're
2 not going to be able to sound their sirens. If you're
3 talking about phone voice message notification, if
4 there's a loss of off-site power, most answering
5 machine phones aren't going to work.

6 I mean, there are a series of shortcomings
7 there, and maybe that technology's not there to cover
8 that, but I'd like to know how you would address that.
9 Maybe Dan can answer that.

10 MR. WILCOX: I guess I just have to go back
11 to the redundance, you know, principle. You know,
12 yes, you're right. We can't guarantee that the off-
13 site power isn't going to be disrupted, so it's, you
14 know, it's incumbent upon us to try to make sure that
15 the systems that are out there still have the
16 capability to make, to have other options, you know,
17 whether it be route alerting or, you know, which may
18 not be the preferred method, but it may be the
19 fallback method, and -

20 MR. MUSEGAAS: But if you -- I guess my
21 point is if you did require backup power to siren
22 systems, whether that -- wouldn't that aid in the
23 redundancy, then?

24 MR. WILCOX: That would certainly aid in
25 the redundancy, yes, but, you know, I guess it's all

1 going to depend on, again, you know, what the set of
2 technologies that are being used in any given area.
3 I don't think I said that real well, but -

4 MR. RICCIO: Just, I'd like to know what
5 states are pushing against you not to have backup
6 power to their sirens, and given the fact that, even
7 regardless of a terrorist attack, your lion's share of
8 core melt probability involves a loss of off-site
9 power, so even without a terrorist attack, the
10 likelihood is in many instances that lead to core
11 melt, you're not going to have sirens or electricity
12 off-site.

13 You're required by law to notify within -

14 MS. LAMPERT: Fifteen.

15 MR. RICCIO: -- fifteen minutes, so you're
16 required. I don't really care what the states think.
17 You guys have the authority to force them to basically
18 have backup power for their sirens. We shouldn't have
19 to rely on the vagaries of one senator or another.

20 MR. MAMISH: I think, if I can try to
21 address your concern, I think you have a good and a
22 valid concern. We license our licensees. We don't --
23 the states and locals are not licensees of the
24 commission. We can certainly consider the backup
25 power for all licensees, but I don't think we could,

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1 statutorily speaking, impose that on the states.

2 MS. LAMPERT: It's not the states.

3 MR. RICCIO: To impose it on your
4 licensees?

5 MR. MAMISH: Yes, and that's exactly what
6 I'm saying.

7 MS. LAMPERT: That's the point.

8 MR. RICCIO: Right. I don't care if you --
9 I don't care how it gets done. Get it done.

10 MR. LEEDS: I'm not arguing with you.

11 MR. RICCIO: I know.

12 MR. LEEDS: I'm agreeing with you. I
13 understand what your point is. I'm telling you I've
14 got a stakeholder with a different point of view. I'm
15 going to present it to the Commission.

16 MR. RICCIO: I know. We just want to help
17 influence those stakeholders.

18 MR. LEEDS: I understand.

19 MR. RICCIO: Yes.

20 MR. LEEDS: Good luck.

21 MR. RICCIO: We don't have the money NEI
22 does, but we try.

23 MR. GUNTER: Right, and I just want to
24 reiterate, you've now issued an order, which sets a
25 precedent at Indian Point, which was federally

1 legislated, but it does -- you know, as I understand
2 it, and, you know, we have been around and around and
3 around on this with regard, particularly -- it started
4 sort of with the emergency enforcement petition, which
5 was broadly supported by a lot of stakeholders and
6 some state and local government, as well.

7 And what's clear to us is that, as you've
8 said, you have jurisdiction. You don't -- and the
9 plants were licensed on the basis that notification of
10 the public had specific requirements and time frames,
11 so, you know, we're concerned that --

12 First of all, we're concerned that NRC has
13 basically ridden along with the glacial pace of FEMA,
14 when, in fact, your jurisdiction says that you could
15 get out ahead of that and make as the, you know, as a
16 requirement of their current licensing basis, and we
17 would just - you know, I have no sense right now as
18 to, particularly if the technical bulletin is only
19 guidance, that we'll ever see a prompt and assured
20 notification system.

21 So that's a concern, and, again, I would
22 just urge the staff to say we've -- this, you know --
23 it's been long enough now. Let's take the, you know,
24 the technologies that are there. Let's take the
25 current order as a precedent to bring these other

1 licensees up to speed.

2 MR. MAMISH: Well, we hear you. I hear you
3 loud and clear. We're going to take your message back
4 to the Commission. What we need to be careful of, and
5 I'm not here to defend our partner, DHS, but we do
6 need to be careful with application of backup power
7 for one sector of the industry versus another sector.
8 That's what they're looking at, and we need to work
9 closely with DHS on the issue. Nonetheless, having
10 said all that, we'll take your issues back up to the
11 Commission.

12 MS. LAMPERT: Wait a minute here.

13 MS. RICCIO: You're confusing people here.

14 MR. MAMISH: I'm sorry?

15 MR. RICCIO: You're confusing people.

16 MS. LAMPERT: The point is, the NRC has a
17 regulation that folks are to be notified within 15
18 minutes. That means they hear the notification.
19 Therefore, you are not enforcing your own regulations
20 by creating a myth, which brings disrespect, I must
21 admit, a myth that if the siren's there, that's
22 satisfying the requirement. It doesn't satisfy the
23 requirement, so we're asking you to enforce your
24 regulations, not pass the buck to DHS, because the NRC
25 is the ultimate authority.

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1 MR. MAMISH: Can you help me understand how
2 the requirements are not being satisfied, the current
3 requirements in 5047?

4 MS. LAMPERT: Because to notify means that
5 the public target population can hear. That means
6 that the siren goes off. That means that if those who
7 work and sleep inside do not hear it, then they have
8 not been notified.

9 MR. MAMISH: All right.

10 MS. LAMPERT: That means if those in the
11 car have not been notified, so you cannot define
12 notification that a switch, so to speak, has been
13 sounded for a siren, so whether it sounds or not, or
14 whether people are sleeping outside or not is
15 irrelevant.

16 MR. WILLIAMS: I think we've heard what
17 you're talking about. I want to get Stacey, and then
18 we probably need to probably wrap it up.

19 MS. ROSENBERG: Okay, Jim I just want to
20 try to answer your question and give a plug for our
21 web site at the same time, because on our web site we
22 do have the transcript from the August 31-September 1
23 public meeting, and if you take a look at that
24 transcript, you can see which states have said what,
25 and there were some states -- there were some state

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1 officials that did talk about, you know, not one size
2 fits all on this topic, and I think they're -- and I
3 can't remember who it was and which state. I think it
4 was actually Kansas.

5 MS. LAMPERT: It was Iowa.

6 MS. ROSENBERG: Where they were talking
7 about their primary means was the tone alert radios,
8 so anyway, I would just really suggest to go back and
9 look at the transcript, and you can see what the
10 states have said.

11 MR. WILLIAMS: Phillip, did you have any
12 other quick comment?

13 MR. MUSEGAAS: I just had a quick question
14 for Dan. When you're talking about the technical
15 bulletin, could you just clarify what other -- when
16 you're talking about critical infrastructure alert
17 notification, you're talking about chemical plants and
18 things like that? Or what other hazard areas were you
19 referring to?

20 MR. WILCOX: It's basically in all hazards.
21 I mean, it could obviously be used in not only rad but
22 chem and bio, but just about any type of -

23 MR. MUSEGAAS: And natural?

24 MR. WILCOX: And that's where I was going,
25 yes, and any type of natural disaster where we need to

1 get the word out quickly to the public that they need
2 to be doing something out of the ordinary to protect
3 themselves.

4 MR. MUSEGAAS: But sirens are generally
5 only used in nuclear power plant EPZs, right?

6 MR. WILCOX: No, not necessarily.

7 MR. MUSEGAAS: No? Okay. Really?

8 MR. WILCOX: They're still -- yes, oh,
9 tornados, definitely.

10 MR. MUSEGAAS: Okay. All right. Okay.
11 Great.

12 MR. WILLIAMS: If we could, if there's
13 any other issue, we've been running around this same
14 issue for some time, I was wanting to know if there
15 was some other issue that you guys wanted to bring up
16 about that, or could we just kind of get Stacey to
17 summarize it, and then move towards the other issues
18 that we want to talk about in terms of the keyhole?
19 Did you have something else?

20 MR. MUSEGAAS: No, I don't. Sorry.

21 MS. ROSENBERG: Okay. I'm going to try to
22 summarize this discussion. I think the, what we heard
23 is that you would like to see requirements on this.

24 MS. LAMPERT: Enforced.

25 MR. GUNTER: Enforcement.

1 MS. ROSENBERG: Enforcement.

2 MR. GUNTER: I understand the requirements
3 of -- and if we can -- I'm sorry. We can revisit
4 this, but there have been numerous occasions, you
5 know, a petition review board before the Commission
6 that what we're asking for is that the assurance of
7 public notification be enforced, because assurance is
8 part of the requirement. It's part of the licensing
9 agreement.

10 MS. ROSENBERG: Did somebody write that
11 down, because I don't have to write anything. Okay,
12 drivers of transportation dependent people should have
13 pagers or cell phones. We heard that. We heard
14 standard route signs and multi-hazard sharing of
15 resources. Mary, I think you talked about that.

16 Dan mentioned that you have appending all
17 hazard standards by DHS for alert notification systems
18 coming out. We heard that you believe both indoor and
19 outdoor notification systems are necessary. We need
20 to consider mobile alert methods for people such as
21 people that are traveling in their cars.

22 You'd like to know what transparency DHS
23 is going to provide, a peer review process for the
24 technical bulletin. You talked about that. You
25 talked about the length of time that DHS has been in

1 the review process, including -- does DHS review
2 include both indoor and outdoor notification systems?
3 That we have -- I can't read my own writing here.

4 MR. MAMISH: Skip it.

5 MS. ROSENBERG: Okay.

6 MR. MAMISH: We've got a transcript.

7 MS. ROSENBERG: Yes, okay. The DHS
8 technical bulletin is a guidance document, not
9 regulations.

10 MR. GUNTER: And that's a concern.

11 MS. ROSENBERG: Okay. That's a concern.
12 That the order for Indian Point sets a precedent. You
13 believe it sets a precedent. You believe that the NRC
14 could get ahead, get out ahead of DHS on backup power
15 to sirens.

16 MS. LAMPERT: Could I add just a little
17 footnote to reader boards, the very obvious, that
18 they're dual purpose, because they would help in an
19 evacuation for providing alternate routes, and so
20 they'd be very valuable in that sense, too.

21 MR. WILLIAMS: Okay. I think that's an
22 adequate summary. I think what we need to do now is
23 revisit the keyhole approach that we were talking
24 about earlier. I think we'll start with Paul Gunter,
25 and we'll move to Mary just so we can capture your

1 issues and anyone else who wants to chime in.

2 MR. GUNTER: Right. I -- the concern is is
3 that the ten-mile emergency planning zone has been
4 viewed as too small in context of emergency planning.
5 The revelation that the initial actions are to a
6 keyhole two miles radius by five miles downwind
7 exacerbates that concern, and particularly I want to
8 know how are you reconciling the --

9 And, again, we haven't really heard yet
10 about the source term studies that Sandia's doing and
11 EPRI's doing, but we have seen the National Academy of
12 Science's April 2005 report, which engaged -- which
13 basically says that a zircoloy fuel fire in a spent
14 fuel pool would cause tens of thousands of fatal
15 cancers out hundreds of miles.

16 So we want to see some reconciliation
17 between what the National Academy of Sciences is
18 publicly reporting as the consequence and this five-
19 mile keyhole. That's, you know, how is this disparity
20 being -- how is it going to be addressed?

21 MR. MAMISH: I'll try the first concern
22 while my colleagues think about the second one, the
23 ten-mile EPZ viewed as too small. I take that to mean
24 that that's your views, or is that somebody else's
25 view? You said viewed as too small. Is that your

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1 view, the NGOs' view, or is that somebody else's view?

2 MS. LAMPERT: All those in favor, raise
3 their hand.

4 MR. MAMISH: Just want to be sure. Well,
5 for -

6 MR. GUNTER: Well, okay, you know, clearly
7 it's been the concern in a number of licensing
8 proceedings.

9 MR. MAMISH: Okay.

10 MR. GUNTER: So, and it goes way back, so
11 I can't give you a -- I mean, I can't give you a
12 reference right now of the breadth of that concern,
13 but it's been our experience that the public views it
14 as a politically arbitrary line.

15 MR. MAMISH: Okay, just for those that may
16 not be aware, the initial PAR, protective action
17 recommendation, that would be provided to the state
18 and locals in the event of an emergency is a two-mile
19 circumference, 360, five miles downwind. That is an
20 initial PAR, the minimum PAR. Thank you, Eric.

21 State and locals can certainly choose to
22 go beyond that based on met data, based on other
23 recommendations from the NRC or other stakeholders.
24 As a plume starts traveling, the recommendations,
25 protective action recommendations, could go even

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1 beyond ten miles. It's a question of what the release
2 looks like, what the wind speed and all the other
3 plant parameters. So I don't know if that addresses
4 your concern or not.

5 MR. GUNTER: Well, I think it has some
6 practical -- there's some practical issues here.
7 First of all, there's the lack of continuity. I mean,
8 if states can choose to enact actions beyond the
9 recommendations of the NRC, there -- you know, you
10 haven't started off in the same huddle. They're
11 different.

12 It would appear to me that the agency's
13 doing its huddle, and then the -- and I understand
14 that the whole idea of drilling and exercising is to
15 get people on the same page, but if, in fact, the
16 initial actions that we're planning for and exercising
17 and drilling are limited to a five-mile downwind, then
18 -- let me -- then I think that there's an issue of
19 losing time and based on a grossly inadequate
20 response.

21 And I think that, again, we've seen from
22 Three Mile Island studies that the public's response
23 is going to be much broader, that people are going to
24 be spontaneously evacuating out to 25 miles. So now
25 an other practical side of this is where you're

1 setting up your reception centers, and if, in fact -

2 MR. WILLIAMS: Hold on. Before we move
3 there, let's address this one issue and then move on
4 to your next issue.

5 MR. GUNTER: I would like to just, yes, get
6 a -- if you would, I would like to get the reception,
7 because it's a part of the, you know, it's the B-part
8 to the same question.

9 MS. MILLIGAN: Just to address the two and
10 five, I had mentioned earlier this morning that you
11 can actually get to, for example, a general emergency
12 without having a release. If a licensee, a nuclear
13 power plant, would find itself marching towards a
14 general emergency, be at a general emergency, with no
15 release, then we would expect, at a minimum, the
16 state, the licensee would issue a protective action
17 recommendation that would be a two-mile ring around
18 the plant and five mile downwind and two adjacent
19 sectors, which takes up about a quarter of your circle
20 around the plant, because that's 90 degrees. Make
21 that as a minimum recommendation to state officials.

22 Now state officials do have the right to
23 take care of their citizens whichever way they choose
24 to. They can act on that. They can not act on that.
25 They can act on their own combination thereof. That's

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1 a state decision.

2 As conditions change, then the licensee,
3 the nuclear power plant, does continue to update. If
4 a release becomes imminent with a very stable wind
5 condition, for example, then that information and that
6 new protective action recommendation is transmitted to
7 the state to say, "Conditions have changed. A release
8 is imminent. It's a stable wind, so we would expect
9 plume touchdown to be at eight and a half miles," so
10 protective action decisions are reconsidered and made
11 going forward.

12 The two and five is just like a default
13 minimum if there's -- that would be the minimum that
14 we would expect based on, you know, what's happening
15 or not happening. Beyond that, if you know there's --
16 if information changes, and you know things are
17 changing, then you adjust your protective actions
18 ongoing.

19 It's a dynamic process. It's not a one-
20 time, you're done, you walk away, that's it. It's a
21 constant revision. There could be a wind shift coming
22 in that you're aware of, so now you expand it. So now
23 you've got perhaps half of your circle is covered,
24 because you don't know, you know, when the wind shift
25 is actually going to occur, so you just simply expand

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1 you keyhole, your sectors, to include those.

2 MR. GUNTER: All right. You know, at that
3 August 31st meeting, we had asked to see if there was
4 going -- if there was technical justification for the
5 five-mile downwind limitation. We would just, again,
6 we'd like to see if, you know, what's, how a five-mile
7 line was drawn for initial actions based on, you know,
8 what considerations, you know, other than source term,
9 weather. I mean, how did we arrive at a five-mile
10 limitation, but I still have this other question, too.

11 MS. MILLIGAN: It's not a limitation. Okay,
12 you can't. It's not there so that you can't -

13 MR. GUNTER: It's a starting point.

14 MS. MILLIGAN: It's a default starting
15 point.

16 MR. GUNTER: But how did we default to five
17 and not to ten?

18 MS. MILLIGAN: I'd have to go back and look
19 at the studies that got that, and we -

20 MR. GUNTER: Because, again, at the August
21 31st meeting, we actually, we found some
22 inconsistencies in NRC's own presentation of that
23 where, you know, maybe it was a typo, but it looked
24 like, you know, that the initial actions were out to
25 ten miles, as well. Sorry.

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1 MR. WILLIAMS: Go ahead, Eric.

2 MR. LEEDS: All right, so we need to take
3 that as an action to get back to you on, to find where
4 that came from. I'm kind of getting lost in all this.
5 I need to know -- I want to be able to go to the
6 Commission and say this is what this stakeholder
7 recommends or wants or, you know, has provide
8 technical basis to justify, and I don't know what that
9 is.

10 MS. LAMPERT: Oh, I'll give you some.

11 MR. LEEDS: I don't know what that is.
12 What do you want to do?

13 MS. LAMPERT: Do you want some?

14 MR. LEEDS: Well, let me get to you, Mary.

15 MS. LAMPERT: Okay.

16 MR. LEEDS: But I know I'm -- Paul
17 obviously has strong feelings about it, and I want to
18 know what it is.

19 MR. GUNTER: Well, you know, okay, look.
20 If we're looking at practical experience, we're
21 looking at the exclusion zones around Chernobyl, and
22 you have different transport mechanisms, but, you
23 know, you've got a 18-mile consequence for, you know,
24 populations being moved out of that area.

25 MR. LEEDS: Okay, so -

1 MR. GUNTER: So that, as far as technically
2 what we've seen is that you can at even further, but
3 clearly what's been demonstrated is an 18-mile radius.

4 MR. LEEDS: So let me make sure I
5 understand. So you're saying that you'd like us to go
6 to the Commission and say the NGOs believes that the
7 10-mile EPZ is too small. It should be 18 miles based
8 on Chernobyl.

9 MR. GUNTER: Well, it's been demonstrated
10 to be 18 by event.

11 MR. LEEDS: But is that what you want me to
12 go to the Commission with? If that's what you want me
13 to go to the Commission with, you know, that's what
14 we'll do.

15 MR. RICCIO: I'd be happy to not roll back
16 the emergency planning needs at this point.

17 MR. GUNTER: Yes, I don't see why we're --
18 I don't know why we see smaller planning zones when --
19 well -

20 MR. LEEDS: We don't see it. We have a 10-
21 mile EPZ.

22 MR. GUNTER: It's a public perception.

23 MR. LEEDS: It's in the regulations. I'm
24 asking what message do you want me to carry to the
25 Commission that I can represent you?

1 MR. GUNTER: That the evacuation zone
2 should be expanded.

3 MR. LEEDS: To 18 miles?

4 MR. GUNTER: Well, 18 has been
5 demonstrated.

6 MR. LEEDS: So you want us to go and say -
7 do you have any other basis for -

8 MS. LAMPERT: Yes.

9 MR. LEEDS: -- why 20 miles is a good EPZ,
10 as opposed to ten or --

11 MR. RICCIO: Well, what did the American
12 Thyroid Association say?

13 MR. WILLIAMS: They said 100.

14 MR. GUNTER: Microphone.

15 MS. LAMPERT: Okay, who's on first right
16 now?

17 MR. GUNTER: You are.

18 MR. LEEDS: Well, can I finish just that
19 one thought. If you guys can -

20 MS. LAMPERT: Yes, I would recommend three
21 planning zones, and they are to be treated
22 differently, that the ten that we have now, known as
23 the EPZ, would have the same requirements as prior to
24 Supplement 3. In other words, NUREG, you know, before
25 this 25, that you would deal with the ten as a whole.

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1 Okay?

2 MR. MAMISH: So you're talking when we a
3 recommendation is made for a PAR, you do -

4 MR. LEEDS: The first one is ten miles.

5 MS. LAMPERT: The first is ten. Then you
6 treat the ten to 20 differently. You deal with that
7 group with potassium iodide, sheltering, and in a hold
8 pattern until the ten-mile group has been able to
9 evacuate. If all hell has broken loose, and it's gone
10 beyond the 20, then you deal with that, but I think it
11 seems more reasonable to look at different emergency
12 planning requirements for different areas as you get
13 out.

14 MR. MAMISH: Based on risk?

15 MS. LAMPERT: Yes, based on the reality of
16 being able to have knowledge, and that's the point
17 that I want to get to next of what has happened to the
18 wind? What actually is coming out? What is the
19 nature of the accident? Do you have a clear
20 understanding of the hazard assessment?

21 MR. MAMISH: Okay, and then the third one
22 would remain at 50?

23 MS. LAMPERT: For 20, and I think this idea
24 that we have that beyond the ten, that the issue is
25 purely ingestion is clearly a myth. I remember Dr.

1 Temek, who represented FDA in the KI initial
2 discussions in Tempe, Arizona, for example, stated
3 very clearly that those out to 30 some-odd miles
4 received damage to their thyroids, for example, from
5 inhalation and from ingestion.

6 And clearly, too, I think if you look at
7 it, if you consider a spent fuel pool fire as a
8 potential, which the National Academy has, and because
9 we don't have graphite reactors, that we would not
10 have such a high fire. Therefore, the concentrations
11 of radionuclides would be more out to your 20-mile
12 area, about. I mean, this has been modeled by Jan
13 Beyea, for example, and so you'll have -- I'm sure
14 you'll have information about that.

15 And so, because so, therefore, I'm not
16 just say go to the 50, because that's ingestion. You
17 take care of the cows, but you don't take care of the
18 people. There may be a situation where there's a
19 problem out there. You deal with it at that point,
20 but you deal with -- I think it's logical, those three
21 areas.

22 MR. WILLIAMS: All right, let's hear from
23 Stacey then get back to Jim here.

24 MS. LAMPERT: But I haven't talked about
25 wind, either.

1 MR. WILLIAMS: I know.

2 MS. LAMPERT: And I really want to talk
3 about that.

4 MR. WILLIAMS: Okay.

5 MS. ROSENBERG: You know, it's been so
6 long, I forgot what I was going to say. I do want to
7 get back to the keyhole for a minute, because I just
8 want to go over. It seems like that's what -- it
9 seems like you think that's what the evacuation would
10 be in a general emergency, and I think what we're
11 saying is that that's your initial minimum.

12 That's the recommendation from the
13 licensee that would be your minimum initial
14 recommendation to the state and local governments, and
15 that would be the recommendation to get those people
16 out right away, and then based on the plant
17 conditions, the changing plant conditions, based on
18 your weather at the time, based on the, you know,
19 where the plume is going, how it's being disbursed,
20 you would continue to assess and continue to change
21 that.

22 So, and I guess we're looking at that as
23 protective, because the situation is going to be
24 different depending on -

25 MS. LAMPERT: Yes, but your resources are

1 being geared to this myth of two-five. Look at your
2 evacuation time estimates. When they say it takes so
3 long to evacuate, they are making assumptions that are
4 to this myth, not to what's going to happen otherwise.
5 When they're making assumptions on the adequacy of
6 resources, it's not to deal with the whole ten. It's
7 being now dealt to this shrunken size.

8 MS. ROSENBERG: I know. I interrupted.
9 I'm sorry.

10 MR. RICCIO: Can I weigh in on this for a
11 second?

12 MR. WILLIAMS: Yes, go ahead.

13 MS. ROSENBERG: Okay.

14 MR. RICCIO: Rather than sit behind closed
15 doors with NEI and edit each other's documents and
16 help them define what is minimally necessary, why not
17 address the reality of the situation, deal with the
18 fact that if you notify -- if the sirens go off, and
19 you're only going to try to clear out two and five,
20 you're going to get a shadow evacuation for the other
21 ten.

22 So rather than help minimally define what's
23 necessary, why not expand your horizon, and try to get
24 something that's going to actually work, rather than
25 just minimally? I know what you're trying to do with

1 the two to five. I think that it's asking for a
2 disaster, so why not just already focus, rather than
3 focus on two and ten, or two to five, focus on the
4 ten.

5 MR. WILLIAMS: Okay.

6 MR. LEEDS: Can I summarize, make sure that
7 I understand? Our initial recommendation of the
8 keyhole, two and five, you guys think that we should
9 take it out of guidance, get rid of it. Okay. That's
10 one thing I heard. The other thing I heard was we
11 should be expanding the EPZ to 20 miles, and the basis
12 was Chernobyl actual experience and the Bio-shield Act
13 legislation of KI out to 20 miles.

14 MS. LAMPERT: No, that was in -- they said
15 that. I said that there should be three distinct
16 areas.

17 MR. WILLIAMS: Right. I think we captured
18 that.

19 MR. LEEDS: And I've got the three. You've
20 got to ten miles, you've got ten to 20, and then
21 you've got 20-plus

22 MS. LAMPERT: Okay.

23 MR. LEEDS: But I heard a couple of you say
24 an EPZ of 20 miles. Is that what you want?

25 MS. LAMPERT: Right.

1 MR. RICCIO: No, I just said, you know, you
2 said, "Why 20?" I said, "Well, because, well, at
3 least that's what HHS is going to at least distribute
4 KI out to."

5 MR. LEEDS: Right, and I heard Paul say 18
6 based on the Chernobyl experience, so that's -- I
7 needed to have something to take to the Commission, so
8 that's what I heard.

9 MR. GUNTER: Well, you know, I think that,
10 in essence, to plan for ten is to underplan. To plan
11 for five is the initial action -- is, you know, it
12 exacerbates the problem that the scope of the planning
13 and preparation is ineffective. It's asking for
14 trouble.

15 I don't know how many times we're even
16 going to have an opportunity to communicate after the
17 initiation of an accident, because, you know, once all
18 hell breaks loose, communications will go down the
19 tube, as well, at least in terms of public. You know,
20 I think that's a certain concern.

21 MS. LAMPERT: And then, Paul, you've got to
22 bring up the obvious point that with today's
23 communications, where every teenager either has a pink
24 or a black cell phone, I mean, the words going to go,
25 and so people are going to behave, and we want

1 planning to be reality-based. That was the big
2 message on how people are going to behave, and they
3 aren't going to stay on their side of the keyhole line
4 and get in a holding pattern, because that's what the
5 plan said. It's not real.

6 But I think another big problem with the
7 keyhole is that it assumes that the wind is going in
8 a straight line, and then you have your gaussian on
9 either side so many degrees, but that, too, is a myth,
10 particularly in coastal communities.

11 We have studies to demonstrate that, that
12 the wind is -- that the direction of the wind is
13 directed by the sea breeze effect. That's the
14 differential temperature of the water and the land.
15 It's affected by terrain. It's affected by buildings,
16 and as a result of that, instead of the wind -- the
17 wind comes out of the starting gate -- I sound like
18 the Kentucky Derby -- like that, but then it varies
19 around, and you're not going to capture this by
20 allowing the licensees to use, I guess it's called the
21 class-A model.

22 They have to use a more complex model,
23 which requires many met towers appropriately placed
24 based upon a meteorological analysis of the area that
25 are computerized and can feed in actual data so you

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1 know where the plume is, what's happening.

2 Hazard assessment is key in planning.
3 It's also key after the fact, and without appreciating
4 the complexity, relying instead on this simplistic
5 type A, not type A. That's a blood type. Class A.
6 Then you may be directing people into a plume. You're
7 telling this keyhole group to, you know, to go, this
8 one to stay, where in reality, it's going towards.

9 Now it's funny, because the Atomic Energy
10 Commission, your predecessors, were really into this
11 way back when. If you look at -- actually, I've been
12 reviewing this stuff. You looked at your initial
13 1970s, and I can give you all this, in 1970, USNRC had
14 documented all of these advanced modeling technique
15 concepts and the potential need for multiple met
16 towers, especially in coastal site regions.

17 In January '83, NRC guidance suggested
18 that changes in on-site met monitoring systems would
19 be warranted if they have not provided reliable
20 indication of monitoring conditions. At Pilgrim,
21 after the '82 disaster, the state did site specific
22 met studies, and they clearly showed that the met
23 tower on site did not give accurate information.

24 Then we move on -- actually, during that
25 '82 disaster, William Land was commissioned to do a

1 met analysis of what held the radiation over the
2 coastal communities from June 3rd to June 20th, and he
3 said the causes for radiation concentration were on-
4 shore winds, wide-spread rainfall, cool descending
5 air, air pollution, fog, air stagnation. All of these
6 are variable, all of these important elements in a
7 disaster.

8 EPA's latest guideline on air quality
9 models, November 9, 2005, states in Section 7.2.8: "In
10 many parts of the United States, the ground is neither
11 flat, nor is the ground cover a land use uniform.
12 These geographical variations can generate local winds
13 and circulations and modify the prevailing ambient
14 wind and circulations.

15 "Geographic effects are most apparent when
16 the ambient winds are light or calm. In general,
17 these geographically induced wind circulation effects
18 are named after the source location of the winds, e.g.
19 lake and sea breezes and mountain" -- that's yours --
20 "and valley winds. In very rugged, hilly, or
21 mountainous terrain, along coastlines or near large
22 land use variations, the characterization of the winds
23 is a balance of various forces" - key - "such that the
24 assumptions of steady state straight line transport,
25 both in time and space are inappropriate."

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1 And it goes on to say: "In the special
2 cases described, refined variable trajectory air
3 quality models can be applied on a case-by-case
4 basis," blah, blah, blah, but the point being, and I
5 can send you all this stuff, yes, and, you know, and
6 how this was sent to NRC. "The EPA concludes the
7 report prepared for NRC provides a detailed discussion
8 of considerations for conducting met measurement
9 programs at coastal sites."

10 But what this all says is, you know, this
11 is baloney. I mean, we have technology that can tell
12 us, can be put in place that can give us a clearer
13 picture of the hazard, where it's blowing.

14 MR. WILLIAMS: Okay, we're going to have to
15 -

16 MS. MILLIGAN: I think what you're saying,
17 Mary, is that you want us to take to the Commission a
18 recommendation that we look at and incorporate a
19 Class-B model into our requirements for licensees?
20 Does that summarize it more or less, or -

21 MS. LAMPERT: Why didn't I say that?

22 MS. MILLIGAN: That's what you're -

23 MS. LEEDS: So that's the recommendation?

24 MS. LAMPERT: If that's what -- okay. Yes,
25 and then you can add that, you know, a point I think

1 Dave Lochbaum brought up in a conversation we had that
2 if you're relying on the met tower on site, and you
3 have a security event, you may have nothing.

4 MS. ROSENBERG: We have that with our --

5 MR. LEEDS: You've got it?

6 MR. WILLIAMS: Stacey, do you have a
7 comment?

8 MS. ROSENBERG: The only comment I was
9 going to make is that our guidance requires licensees
10 to have arrangements with the National Weather Service
11 to address the entire --

12 MR. WILLIAMS: Okay, I think --

13 MS. LAMPERT: But that doesn't work if they
14 don't have the info.

15 MR. WILLIAMS: I think we need to move to
16 Jim, and then we need to wrap it up, go back and catch
17 the last parking lot issue. I believe it's the 30-
18 minute EAL, and then I think Eric's giving that, and
19 then we can go to comments from the public.

20 MR. RICCIO: Okay, I was actually moving
21 into comments from the public, but I just wanted to --
22 I hope I have the right documents, Stacey. I did
23 review your web site. I do have the document you're
24 referencing in front of me, I believe, and here's the
25 section on sirens and backup power. There were one,

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1 two, three, four, five, six, seven, eight, nine, ten,
2 11, 12 commentators that said it should be done
3 immediately. There's no one listed here that says it
4 shouldn't be done.

5 MS. ROSENBERG: Okay, I think you have this
6 document, which is our summary and analysis.

7 MR. RICCIO: Is that another one.

8 MS. ROSENBERG: Please read this. It's
9 important.

10 MR. RICCIO: Well, that's what I've been
11 working off.

12 MS. ROSENBERG: What I was referring to is
13 the transcript --

14 MR. RICCIO: Okay. Got you.

15 MS. ROSENBERG: -- because in the actual
16 transcript is everybody's specific comments.

17 MR. RICCIO: Okay, well in this one, at
18 least IOWA and FP&L said to do it immediately.

19 MS. ROSENBERG: Okay, which is --

20 MR. LEEDS: Can I go back? Jim, we're
21 having, you know, we had that meeting August 31st -
22 September 1st. Since that time, we've continued to
23 dialogue, so we've had meetings with state groups like
24 we're having a meeting with you here.

25 MR. RICCIO: Got you.

1 MR. LEEDS: So we've heard it in other
2 avenues besides the August 31st - September 1st, so
3 there's -

4 MR. RICCIO: I was just trying to figure
5 out -- like I said, I'm trying to figure out who was
6 pressuring you guys, and I didn't find it here, so
7 that's why I asked.

8 MR. WILLIAMS: Right.

9 MS. ROSENBERG: I think, if you look in
10 your transcript --

11 MS. LAMPERT: It was for his Christmas
12 list.

13 MR. RICCIO: Too many calendars.

14 MS. LAMPERT: Who was naughty, who was
15 nice.

16 MR. LEEDS: And that's also, I find it kind
17 of delicate, also. I don't want to -

18 MS. LAMPERT: To tell.

19 MR. LEEDS: I don't want to create more
20 hate and discontent than is necessary.

21 MR. RICCIO: Even Delaware's pressuring the
22 NRC not to do things they think are necessary.
23 That's all.

24 MR. LEEDS: I understand. You know, you
25 can take a look at how many states didn't accept the

1 Commission's KI. You know, there was a significant
2 number of states that said no. A third said no to KI.
3 Why? You need to go and ask them. You need to talk
4 to them.

5 MR. WILLIAMS: Right. I think, yes.

6 MR. LEEDS: Are you ready to do 30? Are we
7 ready to move on to 30?

8 MR. WILLIAMS: Yes, I want to move on to
9 the 30-minute EAL notification justification, and then
10 I think we need to move in, you know, towards wrapping
11 up the meeting, and then move into the comments from
12 the public, and then letting you do the wrap-up and
13 then we'll close.

14 MR. LEEDS: Let me go to the 30-minute,
15 yes, the 30-minute. That was one of the first
16 subjects we hit this morning, and I don't know that we
17 ever reached an alignment that I really understood
18 what you were looking for or, perhaps -- and I was
19 advised in a break that perhaps we need to explain a
20 little more where the 30-minute comes from, and, I
21 think Mary, you asked that specifically, and I'm going
22 to do my best to go through that.

23 Please understand that we're getting into
24 a safeguards area, so I have to be very careful, all
25 right, but I think that you can -- and I'll do it in

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1 such a way, I think, that you can imagine what would
2 happen.

3 If an airplane is greater than 30 minutes
4 out, and there's intelligence, first, that it was
5 hijacked, and second, that it's targeting a nuclear
6 power plant, the action is for us to contact the
7 nuclear power plant, and it'll be a number of plants.
8 You know, you can't always be sure it's headed in one
9 direction. You know, it's got a wide path it could
10 veer off on.

11 So you're going to warn these plants, and
12 you're going to tell them to take, to declare a UE, an
13 unusual event. With that is a message of actions that
14 that plant needs to take, which I cannot get into with
15 you, all right? If it's within 30 minutes, if the
16 airplane is within 30 minutes of a site, they're going
17 to be told to take an alert, and there are actions
18 associated with that that we expect the licensee to
19 take, because now they have an abbreviated time of
20 what actions, and, in fact, there are other set
21 points, but they need to take abbreviated action, and
22 you can just imagine the draconian nature of the
23 actions depending on the time that the licensee has to
24 react to it.

25 The idea of the UE is, when they declare

1 a UE, you're alerting the off-sites. The off-sites
2 know something's going on. I think that's where your
3 concern is coming from.

4 MS. LAMPERT: That's my concern.

5 MR. LEEDS: Right. Okay, so you're
6 alerting them to 30 minutes. Why 30 minutes? I can't
7 get into more details than I've already told you. You
8 can imagine that if it was two hours, I would think
9 the U.S. military may have something to do with it.
10 Now, I don't want to go any further than that, but if
11 you can explain to me why -- now I've told you where
12 30 minutes came from. Can you come back to me and
13 give me an idea of what you want me to tell the
14 Commission with regard to what you want on this,
15 because I've struggled with that.

16 MR. GUNTER: Again, it's -- the concern is
17 that we may not have 30 minutes.

18 MR. RICCIO: It's our concern, also.

19 MR. GUNTER: And if it's within, and that
20 concern fits within their -- what they're working
21 with.

22 MR. LEEDS: Exactly. Right. There are
23 actions we want taken.

24 MR. RICCIO: I think what's going is a
25 misunderstanding rather than a, you know, something

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1 you can take back with you.

2 MR. LEEDS: Okay. Well.

3 MR. RICCIO: Unless Paul has a question
4 that I don't understand.

5 MR. GUNTER: Well, you know, again, my
6 concern is that we're setting up preconceived notions
7 about an EAL that might not be effective at all. I
8 mean, there are so many airports now within ten miles
9 that hijacked aircraft is irrelevant when it could
10 come by private aircraft.

11 MS. LAMPERT: It doesn't matter. That
12 doesn't matter. Sorry.

13 MR. LEEDS: Could you elaborate? If it's
14 a private aircraft, and we don't know about it,
15 there's nothing we can do.

16 MR. GUNTER: Well, again, you know, I'm
17 trying to get back to the point that there are
18 legitimate needs and concerns for no-fly zones and
19 that that's what we hear. That's what I'm -- if, in
20 fact, the emergency actuation levels are ineffective,
21 then perhaps we should be moving to consider no-fly
22 zones.

23 MS. MILLIGAN: I understand what you're
24 saying with no-fly zones, and having had some
25 conversation from time to time with some other folks

1 much more knowledgeable about that area at FRPCC from
2 FAA representatives, if you have a no-fly zone around
3 a nuclear power plant, and a terrorist is intent on
4 flying a plane into a nuclear power plant, they
5 typically don't respect no-fly zones, so establishing
6 a no-fly zone will not prevent a terrorist from flying
7 a plane into your power plant.

8 MR. GUNTER: But it does give you a better
9 sense of crossing a boundary.

10 MS. LAMPERT: No, I think it's worthless.
11 If you don't have the capability on site to take it
12 down, it's worthless, and so if you don't federalize
13 forget it.

14 MR. GUNTER: But if you're not taking it,
15 you know, if you're not taking advantage as early a
16 notification and as early a prepping your operation
17 center, you know, we're missing some very critical
18 time.

19 MR. WILLIAMS: I think what has been
20 understood, what the issues are, and what we've said,
21 it's like we keep going round and round. I think to
22 sum it up - I'm not trying to speak for anybody, but
23 we talked about the issue of if we know of it ahead of
24 time, and it's not just the 30 minutes, that some
25 action is going to be taken.

1 If you get to the other aspects of it,
2 you're going to take some other action there, as well,
3 and I think that's about as good as it's going to get
4 in terms of what we're doing here. If there's an
5 opportunity for further dialogue, I think we can do
6 that sometime later, because I don't see that we're
7 going to make any progress right now.

8 MS. LAMPERT: I mean, this isn't emergency
9 planning, but I would hope they would be considering
10 requiring shut-down.

11 MR. WILLIAMS: Say that again.

12 MR. LEEDS: We can't go there.

13 MS. LAMPERT: That would make sense.

14 MR. WILLIAMS: Okay, so I think we're at a
15 point where, if there's comments or questions for the
16 NRC staff from the public, we can do that at this
17 time. Okay?

18 MR. LOCHBAUM: This is Dave Lochbaum.

19 MR. LEEDS: Is that gentleman a member of
20 the public? Can I see his t-shirt?

21 MR. LOCHBAUM: We'll see after the
22 questions. This is Dave Lochbaum with Union of
23 Concerned Scientists. I had four comments, more so
24 than questions, one on the -- the first question or
25 comment was on the security-based EALs. We recently

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1 saw where Turkey Point had some problems with
2 security. The NRC issues press releases saying that
3 they dispatched augmented inspection teams down there
4 to look at some problems.

5 For security-based EALs where it's not a
6 drill, and there is a notification issued, either a UE
7 or an alert, and the NRC issues anything publicly,
8 whether it be a preliminary notification of occurrence
9 or press release or anything, we feel that that
10 carries an obligation to issue the all-clear. We look
11 at that as essentially pulling a fire alarm and never
12 announcing an all-clear.

13 If the NRC goes out of its way to tell the
14 public about a security event, we think you need to do
15 something about why it's over, again, not going into
16 all the bloody details, but at least why it's no
17 longer an issue.

18 MR. LEEDS: Come out from under your desk.
19 Right. Thank you.

20 MR. LOCHBAUM: We think that, and whatever,
21 if it's a PNO, then it needs to be a matching PNO or
22 a press release or whatever.

23 MR. LEEDS: Thank you.

24 MR. LOCHBAUM: The second two questions
25 deal with the off-site PARs. Paul's point and Mary's

1 point about the alert notification system referred to
2 the PAR analysis that the NRC is currently doing.
3 That's based on 1150, NUREG 1150, which only looked at
4 reactor accidents. It didn't look at reactor
5 sabotage. It didn't look at spent fuel pool
6 accidents. It didn't look at spent fuel sabotage, so
7 that source term is somewhat limited in its
8 applicability.

9 The decision making that you might make
10 might be different if the radioactive cloud came from
11 the spent fuel pool instead of from the accident. KI
12 is an entirely different question, and sheltering
13 could also be an entirely different question in that
14 case. Again, we're not saying it's right or wrong.
15 It's just there is a difference there.

16 In reality, the people making the
17 decisions would factor that into their decisions and
18 would make ad hoc decisions based on the reality of
19 the cloud, rather than some pre-analysis, but I think
20 your regulations in implementing guidance to the
21 extent practical should minimize the amount of ad hoc
22 decision making that has to be made.

23 The other comment on off-site PARs dealt
24 with the public education point. Joe Jones during his
25 comment and several other people talked about the

1 public education component of the off-site PARs. The
2 NGOs at this table could complement the EP outreach
3 efforts that the NRC already does and has long done
4 but for us, to really do anything on that, the EP
5 regulations and their practices have to be at least
6 minimally credible for us to expend any meaningful
7 effort, outreach on this, and right now they're not at
8 that point.

9 The keyhole issue is one of we can't go
10 out and talk to anybody with a straight face about EP
11 that features that kind of bogus practice, so things
12 like that have to be fixed. I mean, you can do
13 outreach on yourselves, but we can't help that when
14 the product is as bad off as it is.

15 Dan from DHS talked about the
16 comprehensive reviews several times in several
17 different contexts, but it's our understanding that
18 the comprehensive reviews are (a) secret, (b) one time
19 only,[©]) non-biding, and therefore (d) they're more
20 promise than progress. They may be worth the paper
21 they're written on, but we don't see the paper, so we
22 don't' even see that value, so I can't say that they
23 have no value, because, essentially, as far as we
24 know, they don't exist.

25 We do know that when they went to

1 Millstone and did a comprehensive review, they
2 identified a vulnerability, made the recommendation,
3 and the plant said, "Thanks, anyway, but no." So that
4 goes back to the non-binding thing. What's the value
5 of a comprehensive review that identifies a
6 vulnerability but goes unaddressed? So, again, we're
7 not sure how to factor that in when they don't seem to
8 have much value or lasting impact. Thank you.

9 MR. LEEDS: Thank you, Dave.

10 MR. NELSON: Good afternoon. Alan Nelson,
11 Director of Emergency Preparedness for NEI. I'd like
12 to thank NRC, the panel, Eric, Nader, Trish, Dan,
13 Stacey, as well as the panel. Time well spent.
14 Discussions have been open and candid. I appreciate
15 your insight and perceptions.

16 The focus, as you review the comments and
17 questions provided before you, I hope that it's a
18 review of the regulations based, and make your
19 determination based on good science, so I think that's
20 where your input and documentation of the science will
21 be important to evaluate each one of these options
22 that you have proposed.

23 I agree wholeheartedly there is a great
24 deal of need for education and outreach, and I heard
25 that at the Commission level, and we from the industry

1 take that seriously, as well. I agree that we ought
2 to be looking at a range of events, releases, no-
3 releases, security, plumes, et cetera.

4 Appreciate the NRC's efforts in looking at
5 the evacuation study, the PARs, and also the looking
6 ahead to the public response to what they thought they
7 heard. You know, how would they react in those
8 aspects? I think that's a critical path. It's
9 something that we at NEI have looked at and have
10 studied, as well.

11 We believe we have partnership with the
12 off-site response organizations, not only for
13 radiological releases but for utilizing these programs
14 for all hazards events. We only see this as one
15 aspect of any response, specifically in tornado areas,
16 hurricane areas, et cetera, where you may have these
17 events are more common than a nuclear release or a
18 nuclear hazard or a terrorist event at a site.

19 We recognize our responsibility for the
20 health and safety of the public. We take this
21 responsibility very seriously. We embellish the
22 bulletin to 2005-02 and have put all aspects of that
23 bulletin in place with emergency action levels,
24 protective actions on site, reevaluation of
25 organization, facilities, and we have initiated as a

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1 volunteer effort the emergency preparedness and
2 security program, which was discussed about earlier.

3 With that program, there has been a great
4 deal of off-site state and local involvement providing
5 us comments to help us develop that guidance, which we
6 will submit at some point this mid-summer for
7 endorsement by not only DHS, but the NRC. In that
8 aspect, I'm sure it will be put in the Federal
9 Register for comment, and we encourage you to comment
10 on that and would work to be responsive.

11 Just focusing on the last comment,
12 evaluating today what is considered today as
13 reasonable assurance, and this is not NEI, but this is
14 me speaking personally. I think it's a multi-tiered
15 review. It's not just, "Did you evacuate? Did you do
16 this or that?" It is a combination of a lot of
17 activities and a lot of interactions, not only the
18 ability of the site to respond, and, of course,
19 they're drilling all the time.

20 They have corrective actions. That's
21 reviewed by either the resident or the inspector of
22 the region, et cetera, and that's constantly under
23 review, and we appreciate that, but looking at the
24 off-site reasonable assurance includes the annual
25 letter of review that comes in January, which

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1 incorporates many multiple aspects of the program,
2 public information program, training, fire, medical,
3 et cetera, updating the plans, as well as
4 incorporating updating the program based on the
5 previous years or the year's exercise that year.

6 There is the technical assistance program
7 where the regional FEMA or DHS rep, sorry, takes a
8 look, a detailed look at procedures, to assure that
9 they're in place and have some level of confidence
10 that they can protect the health and safety of the
11 public.

12 And then finally the exercise. That, in
13 total, looking at a whole picture holistically should
14 be able to allow DHS and NRC the process to evaluate
15 reasonable assurance, and by reasonable assurance is
16 give the public some level of confidence that these
17 programs will, in fact, be implemented in the case of
18 emergency.

19 In closing, again, I'd like to thank the
20 NRC and DHS for the time. I thank the panel for their
21 insights, and I hope that we can engage you again at
22 another time. Thank you very much.

23 MR. WILLIAMS: Thank you. Anyone else? All
24 right. One of my duties is to remind you that we have
25 a public feedback form that we'd like to have you fill

1 out, you know, and get back to us, and tell us what
2 you thought of this outreach effort, this opportunity
3 for us to sit here and get together. You can mail it
4 back to us. You can fill it out, leave it here, and
5 that's what I need to do here. I did my job.

6 MS. ROSENBERG: Thank you so much. Fourth
7 time is a charm.

8 MR. WILLIAMS: At this time, we'll turn it
9 over to Eric Leeds for some closing comments.

10 MR. LEEDS: All right. Before I go with
11 closing comments, is there any closing comments from
12 our panel members you'd like to make? All right.
13 Well -

14 MS. LAMPERT: When do you want the written
15 material? How long do we have?

16 MR. RICCIO: I do have one comment.

17 MS. LAMPERT: Written material?

18 MR. LEEDS: As soon as you can.

19 MS. LAMPERT: Okay, well, when's the
20 deadline.

21 MR. LEEDS: I don't want to give you a cut-
22 off date. I want to be able to accept it as -

23 MS. LAMPERT: When's yours?

24 MR. LEEDS: We have to get a paper up to
25 the Commission in September. We're going to be

1 writing all summer.

2 MS. LAMPERT: Oh, so by the end of June
3 would be fine.

4 MR. LEEDS: End of June would be fine.

5 MS. LAMPERT: Okay. That's what I wanted.

6 MR. RICCIO: Okay, I did say I was going to
7 agree with NEI once today. When we did the RIC
8 earlier this year, NEI said, you know, make better use
9 of your advance notice proposed rule-makings, and I
10 would recommend that what you're going to be doing
11 here, get it out early, get it out often, have a nice
12 big comment period, just get, you know, people ahead
13 of the curve as early as possible.

14 MR. MAMISH: That's precisely what we're
15 trying to do with this public meeting.

16 MR. LEEDS: Thank you. Good feedback.
17 Good feedback. Some closing comments, please. I've
18 been with the agency for almost 22 years. I haven't
19 seen, I haven't been to another meeting that was the
20 staff meeting with NGOs one-on-one. I don't know that
21 this is a model. I don't know if the staff has done
22 this before. I kind of doubt it. Dave is saying yes,
23 we have done this.

24 MR. LOCHBAUM: Several times.

25 MR. LEEDS: Several times.

1 MR. LOCHBAUM: They specifically excluded
2 you, but they had them.

3 MR. LEEDS: Outstanding. Outstanding.
4 Well, several times in the course of 22 years?

5 MR. LOCHBAUM: Several times in the ten
6 years I've been at UCS.

7 MR. LEEDS: All right, well good. Good.
8 I'm glad that we're doing it, and I hope to do more of
9 this.

10 MS. LAMPERT: Hope to be invited.

11 MR. LEEDS: Well, this is plenty enough to
12 do. I found this very useful. I found it positive,
13 constructive. I thought the dialogue was productive.
14 You know, I applaud all of you for coming. You were
15 well prepared, thoughtful.

16 I was remarking to Mary I saw that she had
17 her notes, and she was ready for this meeting. I can
18 tell you that the staff, we have been preparing long
19 and hard for the meeting, and I think that's why it
20 was a productive meeting and that we were able to
21 dialogue, and I think that we understand your issues.
22 I think we can broker them up.

23 Now let's talk about going forward and the
24 future. As I said at the beginning, the purpose of
25 this meeting is to make sure that we understand what

1 issues you'd like us to bring in front of the
2 Commission. We're reaching out to all the
3 stakeholders. We found that the August 31st -
4 September 1st meeting was a good start. It was taking
5 the pressure relief valve up off of the pressure
6 cooker, and the best way to handle that, we decided
7 afterwards, was to meet with each one of the
8 stakeholders separately, give each one a voice where
9 they weren't competing with each other, and I think
10 that's proven to be productive for us.

11 So we're going to take your input, and
12 we're going to factor it in with the input that we got
13 from our other stakeholders. Now, I want to be very
14 honest, forthright. I don't want to give you
15 expectations that aren't warranted, all right?

16 There are some issues that you, and I
17 think you saw from our body language, there are some
18 issues that you brought up that the staff warmed to.
19 There are some issues that I don't know that we agree
20 with you on, and that's fair, and I'm going to say
21 that about all the stakeholders. There were some
22 that, you know, the states brought up some things we
23 agreed with. Some things we disagreed with.

24 Regardless, we will do our best to be a
25 fair broker and put those in front of the Commission.

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1 It will be the Commission that will set the policy
2 that will govern the staff's actions. The Commission
3 paper is due up in September. I'd like to engage with
4 you one more time before that SECY paper goes up to
5 make sure that we have done a good job, fairly
6 understand your issues.

7 After the Commission paper goes up, and we
8 get direction from the Commission, I will want to
9 engage with you again. One of the recommendations
10 that we'll make to the Commission is the way that we
11 engage with you, and we'll give them several options.
12 I like this option, personally, but I need to listen
13 to my staff, and certainly the Commission will weigh
14 in as to how to engage.

15 This was very worthwhile for me, and I
16 appreciate all of your time and your attentions and
17 your efforts, and I hope you all have a good weekend.
18 Thank you.

19 (Whereupon, at 2:56 p.m., the foregoing matter
20 was adjourned.)
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