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Official Transcript of Proceedings
NUCLEAR REGULATORY COMMISSION

Title: Japan's Fukushima Daiichi
PMT NRC Meteorologist Audio Files

Docket Number: N/A

Location: N/A

Date: March 11, 2011

Work Order No.: NRC-4222

Pages 1-2

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4 JAPAN'S FUKUSHIMA DAIICHI
5 PMT NRC METEOROLOGIST AUDIO FILES

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7 FRIDAY,
8 MARCH 11, 2011

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7 SATURDAY,

8 MARCH 12, 2011

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4 JAPAN'S FUKUSHIMA DAIICHI
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7 SUNDAY,
8 MARCH 13, 2011

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7 MONDAY,
8 MARCH 14, 2011

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(CONFERENCE CALL INITIATED)

0%BIG-K_02965094

FEMALE PARTICIPANT: NARAC, this is Lutavis
(phonetic). May I help you?

TOM GALLETTA: Yes, this call's being
recorded. This is Tom Galletta at the NRC in Washington.

FEMALE PARTICIPANT: Hi.

TOM GALLETTA: Hi. And I'm calling back
to speak with one of your meteorologists.

FEMALE PARTICIPANT: Phil Vote (phonetic)?

TOM GALLETTA: Is he still there?

FEMALE PARTICIPANT: Yeah, he is. Just one
minute. And I'm sorry, I didn't get your first name.

TOM GALLETTA: Tom

FEMALE PARTICIPANT: Tom, just one minute,
Tom.

TOM GALLETTA: Uh-huh.

(Pause)

FEMALE PARTICIPANT: Tom, thank you for
holding. Unfortunately, Phil is on the other line. Can
I have him return your call.

TOM GALLETTA: Yes, if I can find my number
here. Oh dear, it's not clear on the phone what my number
is.

FEMALE PARTICIPANT: Well, I show

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1 301-816-5100.

2 TOM GALLETTA: Okay, that's the main number.

3 I'm showing 5401. What did you say it --

4 FEMALE PARTICIPANT: 5100.

5 TOM GALLETTA: Yeah, that's the main number.

6 Try 5401 for my direct line.

7 FEMALE PARTICIPANT: Okay. So

8 301-816-5401.

9 TOM GALLETTA: Correct.

10 FEMALE PARTICIPANT: Okay. Thanks, Tom.

11 I'll have Phil call you back.

12 TOM GALLETTA: Thank you.

13 FEMALE PARTICIPANT: Thank you.

14 TOM GALLETTA: Bye.

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1 (CONFERENCE CALL INITIATED)

2 0%BMO^#_02965094

3 FEMALE PARTICIPANT: NARAC, this is Lutavis
4 (phonetic). May I help you?

5 KEVIN QUINLAN: Hi, could I speak to Phil
6 Vock (phonetic), please.

7 FEMALE PARTICIPANT: Phil has left for the
8 day. The second shift is here. May I ask who's calling?

9 KEVIN QUINLAN: Kevin Quinlan from the
10 Nuclear Regulatory Commission.

11 FEMALE PARTICIPANT: Kevin King (phonetic)?

12 KEVIN QUINLAN: Quinlan, Q-U-I-N-L-A-N.

13 FEMALE PARTICIPANT: Can I help you with
14 something or --

15 KEVIN QUINLAN: Yes. I'm hoping to speak
16 to the meteorologist on shift.

17 FEMALE PARTICIPANT: The meteorologist, one
18 minute please.

19 KEVIN QUINLAN: Thank you.

20 FEMALE PARTICIPANT: Thank you.

21 (Pause)

22 BRENDA POBANZ: Hi, this is Brenda Pobanz
23 at NARAC.

24 KEVIN QUINLAN: Hi, this is Kevin Quinlan
25 from the Nuclear Regulatory Commission.

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1 BRENDA POBANZ: Yes.

2 KEVIN QUINLAN: I was hoping to, we had
3 received some meteorology data earlier from Phil.

4 BRENDA POBANZ: Yeah.

5 KEVIN QUINLAN: And I was just wondering
6 how often were you expecting to provide hourly data,
7 every six hours, or --

8 BRENDA POBANZ: I think we're updating WRF
9 every 12 hours at this point. So with each -- is that
10 correct, Matthew (phonetic)? About. So Phil, I guess,
11 sent you a 24 hour follow-up data.

12 KEVIN QUINLAN: Yes, he did.

13 BRENDA POBANZ: He did. And so that was
14 off the latest WRF run that he had. We'll have another
15 one a little bit later tonight. And we would be able
16 to send an update then.

17 KEVIN QUINLAN: Okay, that sounds great.

18 BRENDA POBANZ: Okay?

19 KEVIN QUINLAN: All right, thank you very
20 much.

21 BRENDA POBANZ: You bet, bye-bye.

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(CONFERENCE CALL INITIATED)

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BRENDA POBANZ: NARAC IMAAC, this is Brenda.

KEVIN QUINLAN: Hi. Could I please speak to the meteorologist on shift?

BRENDA POBANZ: This is.

KEVIN QUINLAN: This is the meteorologist?

BRENDA POBANZ: Sure.

KEVIN QUINLAN: Hi, this is Kevin Quinlan from the NRC.

BRENDA POBANZ: Yes.

KEVIN QUINLAN: I think we spoke earlier, but I just wanted to double check, just because we're trying to figure out our staffing times.

You guys are expecting to send the next updated model data at about 3:00 a.m. Eastern time, midnight your time, somewhere around there?

BRENDA POBANZ: It'll probably be even sooner than that. If the model run is done, I just have to get in the format and get it to you.

KEVIN QUINLAN: Okay. So --

BRENDA POBANZ: But it's down on the que a little bit here.

KEVIN QUINLAN: Okay. So just a ballpark, maybe do you know about how long?

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1 BRENDA POBANZ: It's going to be, give me
2 at least an hour or two.

3 KEVIN QUINLAN: Okay.

4 BRENDA POBANZ: Okay?

5 KEVIN QUINLAN: Thank you very much.

6 BRENDA POBANZ: You bet.

7 KEVIN QUINLAN: Bye.

8 BRENDA POBANZ: Bye - bye.

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Official Transcript of Proceedings
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5 PMT NRC METEOROLOGIST AUDIO FILES

6 + + + + +

7 TUESDAY,
8 MARCH 15, 2011

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(CONFERENCE CALL INITIATED)

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RON BASKETT: NARAC. This is Ron Baskett.

KEVIN QUINLAN: Hi, could I please speak
to the meteorologist on shift?

RON BASKETT: Just a minute please.

KEVIN QUINLAN: Thank you.

RON BASKETT: Yes, may I ask who's calling?

KEVIN QUINLAN: Kevin Quinlan, NRC.

RON BASKETT: Okay. Just a second here.

KEVIN QUINLAN: Sure.

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(CONFERENCE CALL INITIATED)

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RON BASKETT: NARAC. This is Ron Baskett.

KEVIN QUINLAN: Hi. This is Kevin Quinlan again. I was hoping to speak with the meteorologist.

RON BASKETT: Well, actually I'm a meteorologist here working the problem as well, but if I could field your question?

KEVIN QUINLAN: Yes, I was just looking at the meteorology data that you guys sent over to us and I just had a couple questions. I thought --

RON BASKETT: Okay. I'll put you on speaker here, Kevin.

KEVIN QUINLAN: Sure.

RON BASKETT: Yes. Actually Matthew Simpson's here.

MATTHEW SIMPSON: Hi, how's it going?

KEVIN QUINLAN: Good. How are you?

MATTHEW SIMPSON: Not bad.

KEVIN QUINLAN: I just had a question about the meteorology data that you sent us. I thought I found maybe one or two mistakes. On the 15th, hour 6, 6 Etc --

MATTHEW SIMPSON: Okay, is this the time series that's on the Web?

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1 KEVIN QUINLAN: This time series, we just
2 got an email, a WRF forecast update, 0 Z March 15th.

3 MATTHEW SIMPSON: Okay. Yes.

4 KEVIN QUINLAN: Yes, it looks like hour 6
5 direction looks wrong. Maybe it's supposed to be 44,
6 something like that, and it was just 4. I just wanted
7 to verify.

8 MATTHEW SIMPSON: This is all output from
9 the model. During that period, the winds are highly
10 variable. That's what's probably going on there.

11 MALE PARTICIPANT: Bring up NARAC
12 (indiscernible, possibly globe).

13 MATTHEW SIMPSON: Can you give us just one
14 second?

15 KEVIN QUINLAN: Sure.

16 MATTHEW SIMPSON: I'm bringing up the table
17 so we can compare.

18 KEVIN QUINLAN: Okay, sure.

19 (Off microphone discussion)

20 RON BASKETT: So it's got the wind direction
21 from 47 degrees at, no, from 4 degrees at 6 Z. That
22 what you're referring to?

23 KEVIN QUINLAN: Yes, yes.

24 RON BASKETT: Okay. That's the particular
25 one that you think is --

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1 MATTHEW SIMPSON: (Inaudible) verify that
2 was (inaudible).

3 RON BASKETT: Okay. They're thinking it
4 might be 40 something.

5 MALE PARTICIPANT: Yes. Well, if you look
6 in here, the winds are going highly variable. There's
7 a front and stuff going through there.

8 RON BASKETT: Yes, I see that, yes.

9 MALE PARTICIPANT: It's possible. The
10 winds are reasonably (indiscernible, possibly light
11 there).

12 RON BASKETT: Well, it's 2.4 meters per
13 second. Yes, it could vary but -- just hold on here
14 one second.

15 KEVIN QUINLAN: Yes, no problem.

16 (Off microphone discussion)

17 MATTHEW SIMPSON: You still there?

18 KEVIN QUINLAN: Yes.

19 MATTHEW SIMPSON: Yes, so 4 degrees, that's
20 what we're getting out of the model so this is just a
21 period where there is, winds are reasonably light at
22 2-1/2 meters per second and there's some, kind of a coastal
23 low moving off the East Coast of Japan.

24 KEVIN QUINLAN: Okay.

25 MATTHEW SIMPSON: The winds are going to

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1 be slightly variable there in that period and, again,
2 I'll emphasize this is from a model so --

3 KEVIN QUINLAN: Oh, yes. No, I know.

4 MATTHEW SIMPSON: -- take them with a grain
5 of salt, you know. Plus or minus 20 degrees on it easily
6 can be a model (indiscernible, possibly error) on that
7 so that's what's going on with that 4.

8 KEVIN QUINLAN: Okay. And I just had one
9 other question. Right around hour 12 or something, I
10 was looking at -- which model run did you use to run
11 the WRF for this? Was it the --

12 RON BASKETT: (Indiscernible, possibly
13 Typicalization).

14 KEVIN QUINLAN: Yes, yes (inaudible).

15 MATTHEW SIMPSON: Yes, we're using the GFS
16 half-degree data to initialize it.

17 KEVIN QUINLAN: Okay. Do you know which
18 run? Was it the 18 Z?

19 MATTHEW SIMPSON: Let's see, we put this
20 one out at the 0 Z. Yes, sir. It would have been the
21 18 Z.

22 KEVIN QUINLAN: Okay. Yes, it looked like
23 one of the other directions was, looked a little funny
24 but I'll trust you guys, that you know what you're doing.

25 MATTHEW SIMPSON: Yes, so this output is

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1 from a nesting down to a five-kilometer domain.

2 KEVIN QUINLAN: Okay.

3 MATTHEW SIMPSON: And some of the NARAC
4 plumes will be put out for some of these, more or less
5 the (indiscernible, possibly windsock). Those are from
6 the 15-kilometer domain because they're a bigger area.

7
8 KEVIN QUINLAN: Okay.

9 MATTHEW SIMPSON: Really centered on the
10 coast here so it's able to resolve some of the more coastal
11 circulations and that may be contributing to why you're
12 seeing a little bit more variable winds than you would
13 in a coarser model output.

14 KEVIN QUINLAN: Yes, because that's what
15 I'm looking at. I'm looking at a very coarse, looks
16 like, yes, large.

17 MATTHEW SIMPSON: If you're looking at
18 something like GFS output, I mean, it's really just
19 resolving synoptic-scale flow and it's got a time step
20 two orders of magnitude higher than what we're doing
21 so it's going to give you more of a mean flow than, slightly
22 mean and turbulent component to it so, yes, it doesn't
23 always look pretty on paper but it's kind of the atmosphere.

24 KEVIN QUINLAN: No. No, I completely agree.
25 That's fine. I was just looking at the GFS output and

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1 it was looking different. I just wanted to call and
2 make sure everything was good before we went and, you
3 know, used it in a RASCAL run.

4 MATTHEW SIMPSON: Right. So you're looking
5 at surface data from the GFS?

6 KEVIN QUINLAN: Correct, yes.

7 MATTHEW SIMPSON: Okay.

8 KEVIN QUINLAN: Yes.

9 MATTHEW SIMPSON: Yes, I assume you're
10 looking at the half degree?

11 KEVIN QUINLAN: Yes, that's about what it
12 looks like. Yes, it's pretty coarse.

13 MATTHEW SIMPSON: Yes, one (indiscernible,
14 possibly grid point, 20/25) kilometers.

15 KEVIN QUINLAN: Yes and the winds are very
16 light at that time too so, I mean, you know, it shows
17 like five knots from the east whereas this is showing,
18 you know, 2 meters per second from the west but, you
19 know, at that kind of terrain at those kind of light
20 speeds, you know, anything can happen, so.

21 MATTHEW SIMPSON: Yes, well, at least
22 they're in pretty good agreement on the wind speed.

23 KEVIN QUINLAN: Yes, the wind speeds are
24 there, absolutely.

25 MATTHEW SIMPSON: And reasonable on the

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1 direction.

2 KEVIN QUINLAN: Yes.

3 MATTHEW SIMPSON: Okay?

4 KEVIN QUINLAN: Okay.

5 MATTHEW SIMPSON: What was your name?

6 KEVIN QUINLAN: Kevin Quinlan.

7 MATTHEW SIMPSON: Kevin, let me get your
8 information here.

9 KEVIN QUINLAN: Sure.

10 MATTHEW SIMPSON: Could you spell that last
11 name please, Kevin?

12 KEVIN QUINLAN: Q-U-I-N-L-A-N.

13 MATTHEW SIMPSON: Okay, and what group are
14 you with?

15 KEVIN QUINLAN: The Nuclear Regulatory
16 Commission.

17 MATTHEW SIMPSON: NRC, and I assume you're
18 a staff meteorologist?

19 KEVIN QUINLAN: Yes. Yes, I am.

20 MATTHEW SIMPSON: And the number you're on,
21 is that the best number to reach you back if we need
22 to talk?

23 KEVIN QUINLAN: It is, yes. It's
24 (indiscernible, possibly 6401 NZIN). Is it showing up
25 on yours?

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1 MATTHEW SIMPSON: Yes, sir.

2 KEVIN QUINLAN: Okay. Yes, that's the phone
3 number for the Meteorologist Station here at the Operation
4 Center, so.

5 MATTHEW SIMPSON: Okay.

6 KEVIN QUINLAN: If you call it, you should
7 get a meteorologist at some point.

8 MATTHEW SIMPSON: All right, Kevin, were
9 there any other concerns?

10 KEVIN QUINLAN: No, that sounds good to me.

11 MATTHEW SIMPSON: Okay. Well, good talking
12 to you.

13 KEVIN QUINLAN: All right. Yes, thanks a
14 lot.

15 MATTHEW SIMPSON: Okay, you're welcome.

16 KEVIN QUINLAN: Bye.

17 MATTHEW SIMPSON: Good-bye.

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(CONFERENCE CALL INITIATED)

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RON BASKETT: NARAC. This is Ron Baskett.

TOM GALLETTA: Ron Baskett, this is Tom Galletta at NRC Headquarters in Maryland.

RON BASKETT: Hey, Tom.

TOM GALLETTA: This is a recorded line.

RON BASKETT: Yes.

TOM GALLETTA: I'm calling in to get the latest met. I just came on shift and I don't find what I'm looking for here, so what have you got and what's coming in the near future?

RON BASKETT: The latest meteorology? I mean, the latest --

TOM GALLETTA: Again, I assume we're using just forecast data from the Global Forecast Model.

RON BASKETT: Right. Well, let's see. For what? So what do you guys usually get, I guess is what I'm asking.

TOM GALLETTA: We usually get an email from you with met data forecast and you use the GFS and you've got WRF capability.

RON BASKETT: Right.

TOM GALLETTA: Yes, we're looking. You know, whatever you send us. I'm assuming you're sending it

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1 to us either 12 hour, 6 hour. What are you sending it?

2 RON BASKETT: Oh, we've been sending it at
3 six hours and, let me see, last time we sent it out --
4 so what address are you receiving at? We have
5 hoo.hoc@nrc.gov.

6 TOM GALLETTA: Okay, yes, that's the central
7 one. I'm at PMT01. I think it's just the -- let me see,
8 what is exactly my --

9 RON BASKETT: I mean, that's been the
10 distribution.

11 TOM GALLETTA: Right. I'm struggling here
12 trying to find my actual email address. Tell me again
13 what you use, what you send.

14 RON BASKETT: We're sending to hoo.hoc.

15 TOM GALLETTA: At something. Okay, I
16 believe PMT01.hoc, then whatever the rest of it is.

17 RON BASKETT: PMT01@nrc?

18 TOM GALLETTA: That's what I can't find here.
19 Yes. Yes, at nrc.gov, yes. Thank you.

20 RON BASKETT: Okay. So have you seen past
21 ones or, I mean --

22 TOM GALLETTA: I saw some from yesterday,
23 yes. I have not --

24 RON BASKETT: Must have been hard copy or
25 something because --

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1 TOM GALLETTA: Yes.

2 RON BASKETT: -- you're not on an email.

3 TOM GALLETTA: The HOO, the H-O-O, forwarded
4 whatever to us yesterday when I was on shift.

5 RON BASKETT: Oh, okay. I see.

6 TOM GALLETTA: But I haven't seen anything
7 this morning. I just came on at, well, 7:00 a.m. our
8 time and what are we, three hours difference now?

9 RON BASKETT: Right.

10 TOM GALLETTA: Or are we more? I don't even
11 -- let's see, daylight savings. No, we're four hours
12 difference now, right?

13 RON BASKETT: Right, four hours, yes.

14 TOM GALLETTA: Yes.

15 RON BASKETT: So it's all of 5:30 here.
16 You guys already had brunch.

17 TOM GALLETTA: No, we're at 8:30. What time
18 is it there?

19 RON BASKETT: 5:30.

20 TOM GALLETTA: Okay, so only three hours
21 difference. Are you not on daylight saving or --

22 RON BASKETT: Right, yes. Oh, yes, we're
23 always three.

24 TOM GALLETTA: Oh, okay. Okay.

25 RON BASKETT: Eastern, Central, Mountain,

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1 Pacific.

2 TOM GALLETTA: Oh, right. We're all on
3 daylight saving, forgive me. I understand.

4 RON BASKETT: So the latest forecast for
5 -- I'll go ahead and send out here. It's based on a
6 WRF run but --

7 TOM GALLETTA: Yes, WRF. Okay.

8 RON BASKETT: Okay. I'll just add,
9 (indiscernible, possibly oh, rats). Okay. I'll see if
10 I can get that added on our distribution for now and
11 the future.

12 TOM GALLETTA: Okay. Okay, so just update
13 me. When was your last WRF run and when's the next one
14 coming?

15 RON BASKETT: Let's see, it was March 15
16 0 Z.

17 TOM GALLETTA: March 15 0 Z, and what time
18 are we now? We're at 12, okay. So you got another one
19 coming shortly or --

20 RON BASKETT: Let's see.

21 (Off microphone discussion)

22 RON BASKETT: Yes, we're just about ready
23 to send that out, couple minutes.

24 TOM GALLETTA: Okay. Okay, well then maybe
25 I'll wait for that one then.

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1 RON BASKETT: I probably need to send this
2 one just so you know so I can tell.

3 TOM GALLETTA: Okay. They just got
4 something here at 8:12. How familiar are you with high
5 split? I just don't have any experience with it and
6 there's no key on the outputs and I'm struggling.

7 RON BASKETT: Key for, like, dose or what?

8 TOM GALLETTA: Key for whatever the display
9 is, whatever the graph is they're giving you.

10 RON BASKETT: Yes, you have to read a lot
11 of stuff there to understand it. It's very
12 meteorological.

13 TOM GALLETTA: Okay. I think I've discerned
14 that it's all about vertical --

15 RON BASKETT: The three vertical levels,
16 the ground to 500 meter, it's a cylinder, and then one
17 goes to 1,500 meters and the other goes to 3 kilometers.

18 TOM GALLETTA: Okay, so it looks like they're
19 modeling a release at 500 meters, 1,500 meters and 3,000
20 meters.

21 RON BASKETT: That's correct, yes.

22 TOM GALLETTA: And they're going across
23 about two days worth of time roughly, maybe a little
24 bit more. Let me see, one day, two day, three days,
25 across three days, and I believe it's saying what it's

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1 doing vertically over the three days.

2 RON BASKETT: So it's a vertical cross
3 section. That's correct.

4 TOM GALLETTA: Okay. All right, so it's
5 pure vertical information. That's really --

6 RON BASKETT: Well, there's one cross
7 section and then there's center-line trajectories at
8 those three locations and then there's a series of plots,
9 a time series of plots for the lowest, the 0 to 500 meter
10 release.

11 TOM GALLETTA: Okay.

12 RON BASKETT: Based on that, yes. And it's
13 normalized to a unit release so there's no dose information.
14 It's just location. That's (indiscernible, possibly
15 calc) and trajectory.

16 TOM GALLETTA: Okay, (indiscernible,
17 possibly calc) and trajectory. Exposure becquerels
18 square meter, cubic meter?

19 RON BASKETT: Right, but those are
20 normalized to a unit release.

21 TOM GALLETTA: A unit release.

22 RON BASKETT: So you're just looking at
23 (indiscernible, possibly decade-old) contours of
24 location.

25 TOM GALLETTA: Okay.

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1 RON BASKETT: There's no radiological
2 information that you have a becquerel source term.

3 TOM GALLETTA: Okay. All right, so the
4 answer is it's just trajectories based on the height
5 of a release.

6 RON BASKETT: That's right.

7 TOM GALLETTA: Okay.

8 RON BASKETT: But the plots are based on
9 the -- you'll notice it's 500 meter, the lowest level.

10 TOM GALLETTA: Okay. Okay, I understand.

11 The plots are based on 500 meters. Okay, yes, I'm just
12 looking at (indiscernible, possibly the whole file),
13 flipping through it as you're speaking. Okay, that's
14 somewhat what Brad Harvey and I figured out yesterday.

15 You know, we just don't use that model so we don't have
16 the expertise with it.

17 Okay, all right. Back to another basic
18 question here. I assume everything you're sending us
19 is forecast met data. My understanding is we don't have
20 any actual met data from the site in Japan. Is that
21 correct?

22 RON BASKETT: Oh, yes. No, we collect
23 observational met data.

24 TOM GALLETTA: Okay, but anything within,
25 I mean, the stuff we've been finding is, like, Sendai

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1 which is roughly, what, 60 miles away and Onahama which
2 is maybe 35 miles away, something like that.

3 RON BASKETT: You mean from the site itself?

4 Yes.

5 TOM GALLETTA: Are you getting met data from
6 the site itself?

7 RON BASKETT: I don't believe we're getting
8 it from the site.

9 (Off microphone discussion)

10 TOM GALLETTA: Okay, you're a little bit
11 weak there. Say again.

12 RON BASKETT: We're checking (inaudible).

13 TOM GALLETTA: Okay.

14 (Off microphone discussion)

15 RON BASKETT: Anyway, so what was the last
16 question, Tom?

17 TOM GALLETTA: You know, we're --

18 (Off microphone discussion)

19 RON BASKETT: There's one that's about 20/30
20 kilometers inland from Fukushima we're getting from MADIS.

21 TOM GALLETTA: Okay, you got to speak up
22 a little bit. I'm not hearing you.

23 RON BASKETT: There's an OB 20 kilometers
24 inland from Fukushima called Fukushima available on MADIS.
25 Is that the closest?

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1 TOM GALLETTA: Fukushima, 20 miles inland.

2 RON BASKETT: I mean, the OB is called
3 Fukushima.

4 TOM GALLETTA: Okay. The only problem is
5 there's a lot of terrain between Fukushima and the site
6 and so we don't have much confidence in that. Have you
7 used any of that data to, you know, run dose models or
8 no?

9 RON BASKETT: No, no. We're basically using
10 a WRF run.

11 TOM GALLETTA: You got to speak up. There's
12 a lot of background noise here.

13 RON BASKETT: We're using a WRF, W-R-F, run.

14 TOM GALLETTA: Yes.

15 RON BASKETT: Initialized on the GFS.

16 TOM GALLETTA: From the GFS, right?

17 RON BASKETT: I say we're using a WRF run
18 initialized on the GFS.

19 TOM GALLETTA: Okay. Standby one. There's
20 an announcement here. Standby one.

21 (Off microphone discussion)

22 TOM GALLETTA: All right, I'm not quite sure
23 what this is all about but they're broadcasting something
24 here.

25 RON BASKETT: Oh, okay.

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1 TOM GALLETTA: Okay. All right, so we're
2 doing all of our dose assessment runs off the WRF, you
3 know, forecast met data, and we don't have any actual
4 met data, any OBs, except from 20 kilometers inland at
5 Fukushima.

6 RON BASKETT: The closest, that's right.

7 TOM GALLETTA: Okay. Yesterday we looked
8 at Sendai to the north, which is roughly 60 miles to
9 the north I think, and we looked at Onahama to the south,
10 which is maybe 35-ish miles to the south because they
11 were coastal.

12 But, you know, still we felt they were, you
13 know, really too far away to be of, you know, much certainty.

14 So we thought the WRF runs that you were providing were
15 the best source of met data to run the models with, to
16 run RASCAL with.

17 RON BASKETT: Oh, okay.

18 TOM GALLETTA: That's basically what we're
19 doing here. We're using WRF, your WRF runs, to feed
20 our RASCAL. What are you doing out there?

21 RON BASKETT: Well, we're running a forecast
22 with, you know, full 3D WRF run for --

23 TOM GALLETTA: Just trajectories or are you
24 doing dose?

25 RON BASKETT: We're doing both, yes.

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1 TOM GALLETTA: Okay.

2 RON BASKETT: A normalized release and then
3 we're looking at different scenarios for the potential
4 releases.

5 TOM GALLETTA: Okay. What things are you
6 coming up with? Just local issues, global issues, the
7 U.S., Alaska, Hawaii, any concerns there?

8 RON BASKETT: So we're running basically
9 regional WRF on the island and then we're doing a
10 larger-scale across the Pacific.

11 TOM GALLETTA: Yes. Any concerns for any
12 U.S. territories?

13 RON BASKETT: No. The runs (indiscernible,
14 possibly of the Pacific) are very much below any level
15 of concern just from the source terms that, you know,
16 that you guys are providing.

17 TOM GALLETTA: Okay. It sounds like we're
18 in agreement.

19 RON BASKETT: I'm trying to remember how
20 that got distributed. Anyway, if you want to know the
21 estimates over West Coast of the U.S., I would call the
22 NIT. Have you been in touch with the DOE Nuclear Incident
23 Team?

24 TOM GALLETTA: No, I have not been in contact
25 with the DOE Team. You have a contact and a number?

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1 RON BASKETT: Right. Basically we're
2 responding to requests for them so, yes, the only thing
3 you guys have been receiving are the meteorological data
4 by email?

5 TOM GALLETTA: That's what we've been
6 (indiscernible, possibly keying on). I just came in.
7 There's a number of emails here I haven't gone through
8 since, say, midnight.

9 (Pause.)

10 RON BASKETT: Sounds like you're getting
11 a briefing on the status of the reactor?

12 TOM GALLETTA: You mean here?

13 RON BASKETT: Yes.

14 TOM GALLETTA: I don't know where it's coming
15 from. I don't know if it's coming from CNN or where
16 it's coming from.

17 RON BASKETT: Oh, I see, it's a (inaudible),
18 okay. Anyway --

19 TOM GALLETTA: Hang on a second.

20 (Off microphone discussion)

21 TOM GALLETTA: Yes, I have no idea what the
22 source even is here. When it started, we were in the
23 middle of our transaction here.

24 RON BASKETT: Oh, okay.

25 TOM GALLETTA: Okay. So let me just -- you

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1 haven't had any indication of site meteorological data?

2 You haven't been provided any or you're not privy to
3 any? I'm assuming the site meteorological tower got
4 hit by the tsunami or does not have electrical power,
5 but that's an assumption on our part. Do you have anything
6 to add to that or --

7 RON BASKETT: No, we haven't been in contact
8 with anybody in Japan about the local meteorological
9 data.

10 TOM GALLETTA: Okay.

11 RON BASKETT: I mean, there has been some
12 data that has come across that some Japanese sites from
13 the -- are you familiar with the SPEEDI system?

14 TOM GALLETTA: Spell it.

15 RON BASKETT: S-P-E-E-D-I.

16 TOM GALLETTA: S-P-E-E --

17 RON BASKETT: That's the, essentially the
18 equivalent of NARAC in Japan.

19 TOM GALLETTA: Oh, okay.

20 RON BASKETT: The sites, I mean, obviously
21 do have meteorological data but they're on a different
22 network than the --

23 TOM GALLETTA: Yes, we've been on
24 (indiscernible, possibly the Internet) getting data from
25 the Japan meteorological agency. You know, we've been

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1 getting OBs from, like I said, Sendai and Onahama and
2 Fukushima and there's an airport there. I think it's
3 called Fukushima Airport but that's a bit inland too
4 and we know there's some definite terrain, you know,
5 as you go inland and I think the airport's in a valley.

6 So we're, you know, kind of hesitant to,
7 you know, put a lot of credibility into that data. That's
8 why we think the, you know, the WRF runs that you're
9 providing are still the best source. Okay, all right.

10 How long are you on shift? How much --

11 RON BASKETT: We're going to have a shift
12 change here in a little bit, probably about, within the
13 next half hour.

14 TOM GALLETTA: Okay.

15 RON BASKETT: (Indiscernible, possibly So
16 there'll be another), John Nasstrom coming in.

17 TOM GALLETTA: Okay. Got to say the name
18 again.

19 RON BASKETT: John Nasstrom,
20 N-A-S-S-T-R-O-M.

21 TOM GALLETTA: N-A-S-S-T-R-O-M. That's
22 John?

23 RON BASKETT: Yes, yes.

24 TOM GALLETTA: Okay. Yes, I'll be on shift
25 here for another, oh I don't know, what time is it here,

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1 about another five hours. Okay.

2 RON BASKETT: Okay.

3 TOM GALLETTA: Good, I think that kind of
4 like, you know, gets us up to speed here a little bit
5 and I'll look for your next run, data from your next
6 run.

7 RON BASKETT: Okay.

8 TOM GALLETTA: Thank you very much and thank
9 you for your patience.

10 RON BASKETT: Sure.

11 TOM GALLETTA: And maybe we'll be talking
12 again tomorrow.

13 RON BASKETT: Okay.

14 TOM GALLETTA: Okay. All right, thanks.

15 Bye now.

16 RON BASKETT: Bye-bye.

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1 (CONFERENCE CALL INITIATED)

2 0%CJ0F%602965094

3 RON BASKETT: NARAC. This is Ron Baskett.

4 TOM GALLETTA: Ron, Tom Galletta calling
5 you back at the NRC. This is recorded line. Okay, I
6 didn't see any new met data so that's why I'm calling
7 you back.

8 RON BASKETT: You know, we actually have
9 a higher-priority request that we're doing so, and we
10 have a shift change as well so I'm not sure when we're
11 going to get that to you but should be in a little bit.

12 TOM GALLETTA: Okay. Is the run completed
13 or just still --

14 (Off microphone discussion)

15 TOM GALLETTA: I'm looking at the last run
16 and it looks like the wind shift has not occurred. The
17 front hasn't passed yet. It looks like in the next couple
18 hours the front should pass, yes, the site there, the
19 Fukushima site. I lose you? You still there?

20 RON BASKETT: Tom?

21 TOM GALLETTA: Yes.

22 RON BASKETT: Yes, we needed to rerun the
23 WRF run so it'll be a little bit turns out.

24 TOM GALLETTA: Okay.

25 RON BASKETT: You need the -- I mean, can

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1 you go on the last one because it goes out to 17 Z, rather
2 goes out through the 16th.

3 TOM GALLETTA: Yes. All right, we'll just
4 use the last one then.

5 RON BASKETT: Okay.

6 TOM GALLETTA: So approximately when should
7 I look for some new data?

8 RON BASKETT: I think we're at least an hour
9 away. I see it running on a machine.

10 TOM GALLETTA: Okay.

11 RON BASKETT: Okay?

12 TOM GALLETTA: All right, so we'll be
13 patient.

14 RON BASKETT: Okay, all right.

15 TOM GALLETTA: All right, thank you.

16 RON BASKETT: Sure.

17 TOM GALLETTA: Bye.

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(CONFERENCE CALL INITIATED)

0%CS@R-_02965094

LUTUS: NARAC. This is Lutus (phonetic).

May I help you?

TOM GALLETTA: Yes. This is Tom Galletta with the NRC in headquarters in Maryland.

LUTUS: Just one minute please. Thank you.

TOM GALLETTA: Looking for a meteorologist.

LUTUS: Just one minute please. Thank you.

TOM GALLETTA: Yes.

(Pause.)

JOHN NASSTROM: Hi, this is John Nasstrom, NARAC.

TOM GALLETTA: Yes, this is Tom Galletta with the NRC in Maryland. This is a recorded call. Okay, so I'm sorry. Say your name again. John --

JOHN NASSTROM: John Nasstrom.

TOM GALLETTA: Nasstrom. Hello, John. You're the meteorologist?

JOHN NASSTROM: I'm the Response Manager here for NARAC at Livermore Lab.

TOM GALLETTA: Oh, okay. We haven't received any met data.

JOHN NASSTROM: Okay. Yes, I think we've been trying to get the latest one out. We've been swamped

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1 with other work but that's important and we're trying
2 to get that out as soon as we can.

3 TOM GALLETTA: Okay. We're way behind here.

4 I don't think we've had anything in at least 12 hours,
5 so.

6 JOHN NASSTROM: Yes. Stand by.

7 TOM GALLETTA: All right.

8 JOHN NASSTROM: Okay.

9 (Pause.)

10 JOHN NASSTROM: Yes, they've been in the
11 middle of it and got distracted a couple times with some
12 phone calls but they're actually right in the middle
13 of it right now so we'll get to you as soon as we can.

14 TOM GALLETTA: Okay. Sooner's better than
15 later.

16 JOHN NASSTROM: All right. Now, you guys
17 using that to do RASCAL runs?

18 TOM GALLETTA: That's correct.

19 JOHN NASSTROM: Yes, okay. We've been
20 sharing our plume predictions from NARAC with the
21 Protective Measures Team. Is there a way that you guys
22 can send back what you guys are doing?

23 TOM GALLETTA: Yes. Let me check with my
24 manager here and I'll see what we can --

25 JOHN NASSTROM: Okay.

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1 TOM GALLETTA: I'm just trying to think of
2 how -- through a central number or through --

3 JOHN NASSTROM: Well, yes, we have a central
4 email that just goes to the people in our Operation Center
5 here at NARAC and it's NARAC, N-A-R-A-C.

6 TOM GALLETTA: Okay.

7 JOHN NASSTROM: At llnl.gov.

8 TOM GALLETTA: Okay, NARAC, N-A-R-A-C, at
9 llnl.gov.

10 JOHN NASSTROM: Right.

11 TOM GALLETTA: Okay, and you're looking for
12 whatever dose projections that we've run.

13 JOHN NASSTROM: Right, right because, you
14 know, it's a good cross check. I've been sending our
15 stuff to your Protective Measures Team so they can make
16 sure we didn't make any blunders and, you know, it's
17 a good cross check.

18 TOM GALLETTA: Is yours based on containment
19 or a spent fuel pool, the recent one, (inaudible) or
20 what?

21 JOHN NASSTROM: We're using 100 percent melt
22 on Unit 2 with containment, I believe, and then 40 percent
23 melt on Units 1 and 3. That is with containment.

24 TOM GALLETTA: Okay. Our last runs have
25 been based on spent fuel pool.

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1 JOHN NASSTROM: Yes, so originally heard
2 that was a big threat and then we heard it was less of
3 a threat. What's the latest wisdom there?

4 TOM GALLETTA: Latest wisdom. It's coming
5 from the spent fuel pools. I'm not sure if it was 2
6 or 4 but it will probably say in the RASCAL once we've
7 done it. Are you using RASCAL or something else or --

8 JOHN NASSTROM: Well, we use the RASCAL
9 source term but we have a more detailed regional model
10 that we run, a 3D (inaudible) model, so yes, so that's
11 what we're doing so what people are assuming there is
12 the spent pool fuel is the likely release scenario then?

13 TOM GALLETTA: Yes.

14 JOHN NASSTROM: In Unit 4?

15 TOM GALLETTA: I believe there was some
16 actual readings from one of the carriers south of the
17 site and it appeared that the more likely, you know,
18 source was the spent fuel pool rather than containment.

19 And there was an email a while back that
20 was showing that the containments were, let's see, for
21 example, like, you know, three containments.
22 (Indiscernible, possibly It was saying) Unit 4
23 containments, we're saying were not damaged so that's
24 why we --

25 JOHN NASSTROM: So Unit 2 containments were

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1 not damaged? Is that what you said?

2 TOM GALLETTA: Unit 2, it said damage
3 suspected. That was the one I think they said had the
4 crack if I'm not mistaken but overall the containments
5 were not damaged.

6 (Off microphone discussion)

7 JOHN NASSTROM: Sorry, excuse me. Go ahead.
8 So damage suspected but not confirmed on Unit 2, is
9 that what you're saying?

10 TOM GALLETTA: Correct.

11 JOHN NASSTROM: And then what about Units
12 1 and 3?

13 TOM GALLETTA: 1, 3 and 4 it says not damaged.
14 I'm trying to find out what time this came in. Fukushima
15 as of 1900 March 15th, that's probably a little bit older.
16 Let's see, that would probably -- okay. Can I switch
17 back to met data here because I'm hearing some rumblings
18 in the background here?

19 JOHN NASSTROM: Yes.

20 TOM GALLETTA: Any observed met data or are
21 we still using forecast?

22 JOHN NASSTROM: Still using forecast, yes.

23 TOM GALLETTA: Okay. Have you received the
24 -- it looks like some model runs from Japan from --

25 JOHN NASSTROM: Yes, we have. We took a

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1 quick look at those, yes.

2 TOM GALLETTA: Okay, and it looks like it's
3 showing onshore flow as opposed to offshore. Is that
4 what you're seeing?

5 JOHN NASSTROM: Yes, there's some. Yes,
6 towards the -- shifting around but it's towards the west
7 and then towards the southwest. Actually the latest
8 one I saw actually going down the coast I think.

9 TOM GALLETTA: Okay, that's the point of
10 confusion because the forecast, the last forecast data
11 we had said it was taking it back out over the ocean
12 towards the southeast, to the southeast. So obviously
13 now we're catching a lot of questions as to, you know,
14 how come the conflict here.

15 JOHN NASSTROM: Yes, yes. All right, yes,
16 so this is all good lessons learned. This is stuff we've
17 never done before and we're trying to do as fast as we
18 can and no one had it in their procedures so really going
19 to try and get that out to you soon as we can.

20 TOM GALLETTA: Okay. So, again, the
21 question is, and I don't know what the answer is myself.
22 That's why I'm asking. These Japan model runs that
23 we're seeing, where are they getting their data from
24 and --

25 JOHN NASSTROM: Yes, I have no idea. They

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1 could have on-site met stations. It's hard to say. Hard
2 to say. It's only their predictions though because they
3 look like they're (inaudible) into the near future.
4 So they could be using current weather and projecting
5 it out. Yes, I honestly don't know that. We haven't
6 seen any of their data, which is a problem, but we have
7 a guy who has a contact over there. I'm going to put
8 him on that.

9 TOM GALLETTA: Okay. So the thing that we're
10 finding is we can't seem to find any met stations operating
11 within 20 miles.

12 JOHN NASSTROM: Yes, exactly.

13 TOM GALLETTA: And the nearest coastal ones
14 are, like, 35 and 60 miles away and so it looks like
15 all the local stations, you know, are out of commission.
16 You know, so we're suspecting obviously the tsunami
17 or the loss of power.

18 JOHN NASSTROM: Exactly, yes.

19 TOM GALLETTA: So the question is where is
20 this met data coming from? If it's coming from, you
21 know, your WRF model or --

22 JOHN NASSTROM: Yes, that's what it's coming
23 from now, the WRF model, yes. Actually it's initialized
24 with the (inaudible) GFS model and then we use a
25 high-resolution WRF model to get a finer prediction,

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1 but it still has that and it's still forecast.

2 TOM GALLETTA: Whatever the latest is, can
3 you just get something to me now and then you can give
4 me an update as soon as you got an update?

5 JOHN NASSTROM: Yes, hang on a second.

6 (Pause.)

7 JOHN NASSTROM: I'm going to put you on hold
8 and ask them to pick up as soon as they can. Maybe they
9 can just read it to you off the screen, okay?

10 TOM GALLETTA: Okay, who's going to --

11 JOHN NASSTROM: Phil Vogt, V-O-G-T.

12 TOM GALLETTA: Okay.

13 JOHN NASSTROM: You know, if you don't hear
14 back just hang up and call us. I don't want you to be
15 on hold too long so got to remind people. Okay, sorry.
16 Thanks.

17 TOM GALLETTA: All right.

18 (Pause.)

19 PHIL VOGT: Yes, this is Phil Vogt at NARAC.
20 I apologize for the delay. Who am I talking to?

21 TOM GALLETTA: Phil, this is Tom Galletta
22 at the NRC in Maryland.

23 PHIL VOGT: Hey, Tom.

24 TOM GALLETTA: And, yes, we're on a recorded
25 call here again so --

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1 PHIL VOGT: Yes, that's fine. The current
2 conditions as our model is forecasting for is 18 Z, I'll
3 give you 19 Z as well and I'll follow this up with an
4 email, is winds from 331 at 7.6 meters per second, stability
5 Class D. The 19 Zulu time is winds from 332, very, very
6 similar. Little less wind speed, 6.1 meters per second,
7 stability Class D. And I'll follow up with the full
8 text for the next several hours right after I hang up
9 on this call.

10 TOM GALLETTA: Okay. So will you give me,
11 like, a 24- or a 48-hour --

12 PHIL VOGT: It'll go out to 12 Z. Actually
13 I'll go to 18 Z on the 16th. You should have an update
14 before then and I wouldn't want you to use one more than
15 24 hours old for later in the day anyway.

16 TOM GALLETTA: Okay.

17 PHIL VOGT: I'll give you one out to 18 Z
18 tomorrow basically.

19 TOM GALLETTA: Okay, great.

20 PHIL VOGT: All right.

21 TOM GALLETTA: We're waiting with bated
22 breath so as soon as you can get it here.

23 PHIL VOGT: Okay.

24 TOM GALLETTA: Thanks.

25 PHIL VOGT: You bet. Bye.

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1 TOM GALLETTA: Bye.
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(CONFERENCE CALL INITIATED)

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TOM GALLETTA: This is Tom Galletta.

KEVIN: Hey, Tom. It's Kevin (phonetic).

TOM GALLETTA: Hey, how you doing?

KEVIN: Good. During our briefing, they mentioned something about a long-range forecast that I assume you had provided talking about the wind staying basically steady through about Sunday or so, at least --

TOM GALLETTA: No, I did not provide that. That came to the Emergency Director at the (indiscernible, possibly Center Table) this morning. She just read it to me. I did not get an email. I did not get, you know, any --

KEVIN: Okay, so that didn't come from us then?

TOM GALLETTA: Correct, it did not come from us.

KEVIN: Okay. In case it did, I was looking for any documentation you might have. Okay, all right. Well, then I'm going to just try to verify that for them and give them a little bit of a longer range (inaudible).

TOM GALLETTA: She might have said what the

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1 source was but I -- I want to say it just came down from
2 her. Might have came down from, like, the Commissioner.

3 It came down the funnel, down the chain of command so
4 I don't know what the actual source was.

5 KEVIN: Okay, that's fine. All right.

6 TOM GALLETTA: All right.

7 KEVIN: All right, thanks a lot.

8 TOM GALLETTA: Bye.

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5 PMT NRC METEOROLOGIST AUDIO FILES

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(CONFERENCE CALL INITIATED)

RON BASKETT: NARAC, this is Ron Baskett.

TOM GALLENA: Ron Baskett, this is Tom Gallena in Washington. This is a recorded line.

RON BASKETT: Hi, Tom.

TOM GALLENA: Hey. We haven't had any new method in like 13, 14 hours. Can you send us something?

RON BASKETT: Let's see. We're sending it to the, hang on now, the right email address here. We sent it out over an hour. But we sent it to an 02 number rather than a, let's see, PMT02.

TOM GALLENA: Okay. I'm 01. If you can --

RON BASKETT: Yes. I don't know why, well when I came on shift people were startign to sending it to 02. So I'm not sure how that happened.

TOM GALLENA: Okay.

RON BASKETT: Because I put out a message on our log to send it to 01. So I'll have to do that again, I guess. But, so you don't get the 02?

TOM GALLENA: I can search around and see who 02 is.

RON BASKETT: Yes, we've got PMT02.hoc@NRC.gov.

TOM GALLENA: Okay.

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1 RON BASKETT: So we should send it to 01
2 as well?

3 TOM GALLENA: 01, yes, please. That's the
4 meteorologist station.

5 RON BASKETT: Okay. I'll try again on our
6 log to see if we can get the folks to do the 01'er.
7 Okay anyway, so yes.

8 TOM GALLENA: Okay. Yes, do that. I still
9 have two other questions for you.

10 RON BASKETT: Okay, let me do that now.
11 Let's kind of look at this and talk it over or --

12 TOM GALLENA: I guess stability is what I'm
13 interested in. How you create a stability from --

14 RON BASKETT: How we create a stability,
15 okay.

16 TOM GALLENA: You're a meteorologist, right?

17 RON BASKETT: Yes, I am.

18 TOM GALLENA: Yes, I thought so. Okay.

19 RON BASKETT: Right. Let's see, I believe
20 that could be a question for, yes. Our guy that did
21 the (indiscernible, possibly "little routine") to do
22 that is on an earlier shift.

23 TOM GALLENA: Okay.

24 RON BASKETT: And the guy that may know about
25 it is currently disposed.

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1 TOMGALLENA: Allright. That'sokay. Yes,
2 if somebody could, maybe you could send an email to PMT01.

3 RON BASKETT: Yes.

4 TOM GALLENA: I don't know if it's cloud
5 cover, you know, solar radiation --

6 RON BASKETT: Right.

7 TOM GALLENA: -- Delta T of some sort, you
8 know, whatever.

9 RON BASKETT: I can assure you it's not Delta
10 T. You know, SRDT or something, are you crazy?

11 TOM GALLENA: Well, you know, hey there's
12 creative people out there.

13 RON BASKETT: Oh yes, I know. I think
14 actually somebody did get creative. Well, it's our wharf
15 (phonetic) guy.

16 TOM GALLENA: Oh it is.

17 RONBASKETT: Sure. You know, I mean because
18 you know it's coming under wharf, right?

19 TOM GALLENA: Yes, yes.

20 RON BASKETT: So, and we were looking at,
21 I mean one of the outfits was (indiscernibly, possibly
22 *) and that's what I was recommending using when I was
23 talking to one of the guys on shift. But I don't know
24 what they actually came up with, but anyway. So see
25 if you got it there. Did you get it on your email, are

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1 you there?

2 TOM GALLENA: Okay, yes. There it is. I
3 just saw it pop up. Thank you.

4 RON BASKETT: So they got, are they
5 believable? A lot of season Ds.

6 TOM GALLENA: I mean that's safe. I mean,
7 if you have a bell curve that's where it's going to be,
8 right? Well, it could be Ds and Es.

9 RON BASKETT: Yes, but this is like 48 hours
10 so I would have thought things relatively. Oh, that's
11 right. It's seems kind of windy. Yes, actually sudden.

12 TOM GALLENA: Okay.

13 RON BASKETT: The (indiscernible, possibly
14 "signs") are coming out now.

15 TOM GALLENA: Let me see if this is opening
16 up. It's not opening up for some reason here. Open.
17 Please open. What's going on here. Why is it not
18 opening.

19 RON BASKETT: It's a 2007 Excel file?

20 TOM GALLENA: Yes.

21 RON BASKETT: Office '07, do you got that?

22 TOM GALLENA: Microsoft Excel, come back
23 up here.

24 RON BASKETT: It'sxlsx extension.

25 TOM GALLENA: This looks like 2010, it looks

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1 like.

2 RON BASKETT: Oh, it's a 10'er? Oh my.

3 TOM GALLENA: Yes, it's got that new look
4 to it. Some like it, some don't.

5 RON BASKETT: Oh yes.

6 TOM GALLENA: They used to have that tab
7 that told you what, well that's gone now. That helped
8 best. It's probably here somewhere, you just can't find
9 it. They highly bury it. You know, somebody's got to.
10 Okay, let me get to my other question.

11 My other question is observed data from Japan.
12 Has anybody talked to the Japan, what is it,
13 meteorological agency? Have we got any contacts over
14 there, tried to get some ground troops out of, you know,
15 see how close the wharf is to reality, you know, the
16 actual?

17 RON BASKETT: I know that we've basically
18 downloaded our surface ops from time to time and compared
19 them with the wharf winds. I think, you know,
20 qualitatively things are doing pretty well. We haven't
21 done any kind of rigorous, quantitative, you know, every
22 time. I mean not every time or, you know, fairly thorough.
23 But so yes, we just don't, you know, have enough time
24 --

25 TOM GALLENA: Of course.

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1 RON BASKETT: -- to do that.

2 TOM GALLENA: Yes. Okay. So you're saying
3 you haven't even really contacted any meteorology staff
4 in Japan then?

5 RON BASKETT: The next shift, actually the
6 meteorologist at the Air Force base is going to call
7 in.

8 TOM GALLENA: Okay. Good because in our
9 next shift, so he left me a message last night that he
10 was trying to, you know, get a contact in Japan because,
11 you know, basically we were only running off model data.
12 And, you know, is there any way to get any kind of observed
13 data?

14 RON BASKETT: Well, we have a lot of observed
15 data coming in.

16 TOM GALLENA: Okay. But anything near the
17 --

18 RON BASKETT: Right. Yes, like, we talked
19 before. Nothing's, you know, I think the closest was
20 20 kilometers away and not on the coast.

21 TOM GALLENA: Okay, yes. That would
22 probably be Fukushima City or whatever, Fukushima Airport
23 maybe?

24 RON BASKETT: Right, that was it, yes.

25 TOM GALLENA: Okay. Yes, same here. Well

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1 the point I'm bringing up is we're getting some model
2 runs from Japan. It looks like, because it's all coming
3 over in Japanese.

4 RON BASKETT: Yes, right.

5 TOM GALLENA: And yesterday for a while there,
6 they were having, the winds were totally opposite. I'll
7 say 180 degrees opposite of what, you know, what we were
8 using from the model run and then we were going where
9 are they getting this data from. You know, who's data
10 is it.

11 RON BASKETT: Are you talking about the
12 Speedi output?

13 TOM GALLENA: I don't remember that it was
14 Speedi. And I just came on shift here so I'd have to
15 try to go back and try to find an email.

16 RON BASKETT: I mean is it a somewhat Gaussian
17 looking plot?

18 TOM GALLENA: Yes. It almost looked, you
19 know, comparable to our RASCAL plot, right.

20 RON BASKETT: Right. That's most likely
21 from the system run by what used to be called the Japanese
22 Atomic Energy Research Institute, JAERI, and it has a
23 different name now. But anyway, they run a modeling
24 system called Speedi, S-P-E-E-D-I.

25 TOM GALLENA: Okay. So the question is --

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1 RON BASKETT: There's a network of
2 meteorological stations at the power plants.

3 TOM GALLENA: Yes. Something might still
4 be working at the power plant that we can't seem to get
5 access to?

6 RON BASKETT: We haven't been in direct
7 contact with our, well we've actually tried to reach
8 our Speedi collaborators. But I've not been in contact
9 with them yet.

10 TOM GALLENA: Okay.

11 RON BASKETT: Just a second here. So yes,
12 we both think that they worked with (indiscernible,
13 possibly *) to output, and they found them there to get
14 the stability class. I think that's the only thing it
15 can be.

16 TOM GALLENA: Okay. Sure.

17 RONBASKETT: Yes, there's a (indiscernible,
18 possibly "thunder layer output") out of wharf
19 (indiscernible, possibly *) because I gave him, you know,
20 Golder's (phonetic) old paper. Are you familiar with
21 Sean Golder from Penn State?

22 TOM GALLENA: Penn State? No, actually I'm
23 not. Actually, I should be very proud of that.

24 RON BASKETT: What's that? You're a
25 meteorologist right, Tom?

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1 TOM GALLENA: Yes.

2 RON BASKETT: Yes, sure.

3 TOM GALLENA: Well, I've shifted over to
4 project management.

5 RON BASKETT: Right, okay.

6 TOM GALLENA: So I haven't done any
7 meteorology here for awhile here.

8 RON BASKETT: Right. Well anyway, but
9 anyway, but there's a guy that did, when he was working
10 on his Master's, a really great Master's that there's
11 a relationship between (indiscernibly, possibly *) links
12 and pass code categories.

13 TOM GALLENA: Okay.

14 RON BASKETT: All right.

15 TOM GALLENA: All right. For some reason
16 this is not opening. I can't get the --

17 RON BASKETT: Oh, okay. That's interesting.
18 I can extract it and try to put it in the table or something
19 I guess. I can check. It just doesn't want to open for
20 you?

21 TOM GALLENA: Yes. I'm still working on
22 it. Correct, I've tried half of the time here and still,
23 it does not want to open.

24 RON BASKETT: Weird.

25 TOM GALLENA: Okay, it's an Excel

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1 spreadsheet. Undated wharf forecast, (indiscernibly,
2 possibly "0Zs"), March 16, (indiscernible, possibly "0Z"),
3 March 18 and it's an .xlsx file. So that's a new extension.

4 RON BASKETT: Is that something that your
5 system isn't seeing?

6 TOM GALLENA: Let's see, how about if I save
7 it and then tried to open it. Save it to the desktop
8 and try to open it. Where is it saved? Right here.

9 Okay, there. Something just opened it.
10 It was an interesting trick how that happened, but okay.
11 Very good. Okay. So you have UTC on here. What's the
12 (indiscernible, possibly *) of adding a column for Japan
13 Standard Time?

14 RON BASKETT: I don't think that's going
15 to happen. I mean, we're all UTC.

16 TOM GALLENA: Okay. All right. Well, we'll
17 try and add a count. The people here kept saying, you
18 know, we do all our runs in local time, Japan Standard
19 Time, so they say can you convert that for us.

20 RON BASKETT: Yes, I know. And always a
21 lot of time conversion going on when you do these things.

22 TOM GALLENA: Okay. You know what? It was
23 probably the later one you sent me that opened up. The
24 one you just sent me.

25 RON BASKETT: Oh. I just sent the text in

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1 the message.

2 TOM GALLENA: Okay. Yes, that's the one that
3 opened up, yes.

4 RON BASKETT: Oh okay.

5 TOM GALLENA: Yes, I'm trying to figure out
6 why the Excel wouldn't open. Okay, but thank you.

7 RON BASKETT: Okay.

8 TOM GALLENA: I got the text one.

9 RON BASKETT: Okay.

10 TOM GALLENA: All right. Yes, if you get
11 any progress on finding out where they're getting the
12 Speedi's, how do you pronounce that again?

13 RON BASKETT: S-P-E-E-D-I, Speedi.

14 TOM GALLENA: Okay, Speedi.

15 RON BASKETT: Yes.

16 TOM GALLENA: So if you can find out where
17 they're getting the method that they're running their
18 model with, that would be real, you know, because for
19 a while there, like I said, it was totally opposite of
20 what we were --

21 RON BASKETT: Right. The timing and the
22 location, you know, is not going to be, I mean the wharf
23 is not going to get that (indiscernible, possibly
24 "destroyed"). So it could be an hour or two. Hopefully
25 not more than two hours difference. But that would be

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1 my thinking.

2 TOM GALLENA: Okay. How much longer are
3 you on shift?

4 RON BASKETT: Just another couple of hours
5 here.

6 TOM GALLENA: Okay. All right. I'm sure
7 we'll be checking back in later in the day. And your
8 relief would be who today?

9 RON BASKETT: That'd be John Nastrom in about
10 an hour and a half.

11 TOM GALLENA: John Nastrom, okay.

12 RON BASKETT: Yes.

13 TOM GALLENA: Is this the best number to
14 call in on, the one I got you on today, or does John
15 have another number or what?

16 RON BASKETT: No, he'll be answering this.

17 What do you have, (b)(6)

18 TOM GALLENA: (b)(6) right.

19 RON BASKETT: Yes, right. Yes, that's our
20 24/7 emergency number.

21 TOM GALLENA: Okay. All right, very good.

22 RON BASKETT: Okay. All right.

23 TOM GALLENA: Until next time.

24 RON BASKETT: Okay, Tom. Yes, okay.

25 TOM GALLENA: Bye.

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1 RON BASKETT: Talk to you later. Bye bye.
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(CONFERENCE CALL INITIATED)

RON BASKETT: NARAC, this is Ron.

TOM GALLENA: Ron, this is Tom Gallena, NRC.

RON BASKETT: Yes, Tom?

TOM GALLENA: This is a recorded line. Okay.

They're asking about a forecast. They're concerned about onshore and offshore winds through the weekend.

Have you looked at that?

RON BASKETT: Looking at the forecast for the next 48 hours, yes. Specifically have 48 hours forecast on our work model. And it looks (indiscernible, possibly *).

TOM GALLENA: Okay. How far does the GFS go out and do you look at any of that?

RON BASKETT: We haven't at looked too much farther than that.

TOM GALLENA: Okay. We just pulled up Weather underground. I know that's --

RON BASKETT: Yes, a reliable source, yes.

TOM GALLENA: Okay. All right. So tell me what you see. It's all offshore from what you're seeing in the next 48 hours, or what?

RON BASKETT: Let's see, actually we're pretty busy with a calculation right now. If you could

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1 call back in about maybe a half hour.

2 TOM GALLENA: They want this in five
3 minutes.

4 RON BASKETT: Just a second.

5 TOM GALLENA: Yes.

6 (Pause)

7 RON BASKETT: Yes, Tom. You have the one
8 for the latest forecast out with the wind directions?

9 TOM GALLENA: Right. Okay, and that's all
10 you have then?

11 RON BASKETT: Right, that's all we've looked
12 out right now.

13 TOM GALLENA: Okay. So you haven't done
14 any longer term than that?

15 RON BASKETT: No, we haven't looked longer
16 term than that, no.

17 TOM GALLENA: Okay.

18 RON BASKETT: What are you guys interested
19 in?

20 TOM GALLENA: The commission wants to know,
21 you know, when it's going to turn on onshore, how long
22 it's going to be onshore, and then when is it going to
23 go back offshore.

24 The preliminary indication that it's going
25 to be this weekend like Sunday, we're looking at some

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1 of the Onahoma and the Sendai forecast data that we got
2 off of Weather Underground. And, you know, we see
3 something as early as Friday, and then Saturday night
4 into Sunday.

5 Friday during the day, it'll be onshore.
6 Saturday night into Sunday, it'll be onshore in Onahoma.
7 Sendai, nothing onshore until Sunday.

8 RON BASKETT: Okay. Well then, yes.

9 TOM GALLENA: So that's where we're going
10 to have to go with them.

11 RON BASKETT: Okay.

12 TOM GALLENA: We were hoping you guys were
13 looking at this also, but they've probably given you
14 other priorities.

15 RON BASKETT: Right exactly, yes.

16 TOM GALLENA: Okay.

17 RON BASKETT: Okay, Tom.

18 TOM GALLENA: If you do get a chance to look
19 at something longer range in the next hour, can you do
20 it and call us?

21 RON BASKETT: All right, will do.

22 TOM GALLENA: Okay. Do you have my number?

23 RON BASKETT: I got 301-816 and what's the
24 extension?

25 TOM GALLENA: Mine is 5401.

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1 RON BASKETT: 401, got it. Okay.

2 TOM GALLENA: Thank you.

3 RON BASKETT: Sure, yes.

4 TOM GALLENA: All right.

5 RON BASKETT: Bye bye.

6 TOM GALLENA: Bye.

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(CONFERENCE CALL INITIATED)

KEVIN CLIKMAN (phonetic): Kevin Klikman,
Meteorology.

ERIC: Hi Kevin, this is Eric from the
International Liaison Team.

KEVIN CLIKMAN: Hey, Eric.

ERIC: We have someone calling in from USAID,
and they had some health questions regarding all the
US personnel they're sending over to Japan. Can I connect
her to you guys?

KEVIN CLIKMAN: That would not be me. That
would --

ERIC: PMT though, right?

KEVIN CLIKMAN: Yes, that would be PMT.
Hold on. Just let me get our Director over here to let
you know what number that would be.

ERIC: Okay.

KEVIN CLIKMAN: All right. One second.

(Pause)

KEVIN CLIKMAN: Hey, Eric. Yes, it's
extension 5419.

ERIC: 5419, okay.

KEVIN CLIKMAN: Yes.

ERIC: Thank you.

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1 KEVIN CLIKMAN: Yes, no problem.

2 ERIC: Bye.

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(CONFERENCE CALL INITIATED)

KEVIN CLIKMAN: Kevin Clickman, Meteorology.

ERIC: Hey, Kevin. I tried to transfer over to 5419, but it's ringing busy. Can I just connect him to this number?

KEVIN CLIKMAN: Yes.

ERIC: And just pull the person over because they've been on hold now for about five minutes. Is that okay?

KEVIN CLIKMAN: Yes. I can put him on speaker over here.

ERIC: I'm going to connect him, okay?

KEVIN CLIKMAN: Okay.

ERIC: All right, bye. Thanks.

KEVIN CLIKMAN: Yes. Okay. There's nobody on the line right now. Hello?

JOANN JONES: Hello?

MALE PARTICIPANT: Yes, this is the NRC's Protective Measures Team. Who am I speaking to, please?

JOANN JONES: My name's Joann Jones. I'm with USAID.

MALE PARTICIPANT: Yes, Joann?

JOANN JONES: We have a number of questions. We've had employees deployed to Japan to consult with

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1 Japanese responders as well as a large contingency of
2 at least 150 US citizens on search and release efforts.

3 MALE PARTICIPANT: Okay.

4 JOANN JONES: And there are some issues on
5 sort of health and safety issues, and we need some advice
6 on how to respond to these questions. Sorry?

7 MALE PARTICIPANT: Okay. Why don't you give
8 me the first question, we'll have at it.

9 JOANN JONES: I mean I could send, there's
10 about four or five of them. I'm not sure if you would
11 want me to send them. But what is the government policy
12 for repatriation of US citizens to the US that have been
13 contaminated with radioactivity?

14 MALE PARTICIPANT: Okay.

15 JOANN JONES: Who is responsible for cost
16 associated with quarantine of contaminated US government
17 responders? Who is responsible for loss of income of
18 the responder during quarantine period?

19 Who is responsible for long-term healthcare
20 treatments for the responder and possibly family members?

21 MALE PARTICIPANT: Wow.

22 JOANN JONES: Yes.

23 MALE PARTICIPANT: I'm not sure we have all
24 the answers.

25 MALE PARTICIPANT: I don't even know if we

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1 would address those.

2 KEVIN CLIKMAN: Can we these questions
3 emailed?

4 MALE PARTICIPANT: She might have to email
5 those. Can you email them and we'll try to see if there's
6 anybody that can answer these?

7 JOANN JONES: Sure, sure.

8 MALE PARTICIPANT: My suspicion is these
9 are definitely not in our realm. I would indicate that
10 the possibility that loss of responder income, I would
11 assume that these people are all US government employees
12 and they would be subject to the workman's comp.

13 JOANN JONES: Yes. But our people, our
14 employees, yes. But what about US citizens that are
15 deployed under these search and rescue operations?

16 MALE PARTICIPANT: US citizens?

17 JOANN JONES: Yes.

18 MALE PARTICIPANT: Fairfax County.

19 MALE PARTICIPANT: Oh, Fairfax County
20 firefighters?

21 JOANN JONES: Yes, yes.

22 MALE PARTICIPANT: By workman's comp as
23 well.

24 JOANN JONES: Would that be, like, the state
25 program as opposed to the federal since they're working

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1 for federal?

2 MALE PARTICIPANT: Fairfax County fire
3 department rescue teams, yes that would be a state program.

4 While they're up there, actually their employers program
5 in the state that they're located.

6 JOANN JONES: Yes. Okay.

7 MALE PARTICIPANT: There was some discussion
8 last night, and I have no idea where it went. There
9 was discussion about relocating all the US citizens out
10 of the area.

11 JOANN JONES: That are already there, you
12 mean?

13 MALE PARTICIPANT: This was not the
14 emergency workers. This was, I think was 160,000 American
15 citizens presently in Japan.

16 JOANN JONES: Oh, yes.

17 MALE PARTICIPANT: So obviously, I think
18 the Department of State was considering these issues.

19 Offhand, I don't think we have answers to these. The
20 USAID, aren't they a wing of the State Department?

21 JOANN JONES: Well, we're a separate agency
22 reporting to the State Department. I guess, you know,
23 we're concerned about the liability of these, you know,
24 particularly the citizens and what liability we would
25 have if there were issues with all these people being

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1 deployed as part of this rescue and relief effort. But
2 are you thinking that the State Department is dealing
3 with some of this already?

4 MALE PARTICIPANT: I don't know for a fact.
5 Okay, I'm going to get you an email address.

6 JOANN JONES: Okay.

7 KEVIN CLIKMAN: Email address here is P,
8 Paul, Mary, Thomas, PMT12.hoc@nrc.gov.

9 JOANN JONES: Okay. PMT12, was that right?

10 KEVIN CLIKMAN: Yes.

11 JOANN JONES: .hoc@nrc.gov?

12 KEVIN CLIKMAN: Right.

13 JOANN JONES: Okay.

14 MALE PARTICIPANT: And make you sure you
15 return information on it as well.

16 JOANN JONES: Okay.

17 MALE PARTICIPANT: Thank you.

18 JOANN JONES: Thank you. Bye bye.

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(CONFERENCE CALL INITIATED)

MIKE: Mike (indiscernible, possibly *).

KEVIN CLIKMAN: Hi Mike, it's Kevin.

MIKE: Hi.

KEVIN CLIKMAN: A quick question. I was going to give NARAC a call pretty soon and ask them a couple of questions that we had.

MIKE: Okay.

KEVIN CLIKMAN: Do we have anything other than what is the wind types that they're providing us and whether it's 10 meter or 2 meter?

MIKE: That, how they determine stability class?

KEVIN CLIKMAN: That's right. I knew we had another one, I just couldn't remember what it was.

MIKE: Right. And do they go A through F or A through G. I don't know what the data that have been coming across, but I wouldn't expect that we've had conditions that would generate a G at this point because there's so much moisture in the air.

KEVIN CLIKMAN: Yes. And it's been pretty windy, yes.

MIKE: Yes. But it'd be good just to know that.

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1 KEVIN CLIKMAN: Yes, in case we get a
2 question.

3 MIKE: Right. You might also want to ask
4 them, I don't know. Did you get a chance to talk to
5 the translator before she left, the dose assessor --

6 KEVIN CLIKMAN: No, I didn't.

7 MIKE: -- workstation?

8 KEVIN CLIKMAN: No.

9 MIKE: I think she might be gone now. She
10 was going to leave at 4:00. But ask them if they know
11 what the physic model is.

12 KEVIN CLIKMAN: Okay. I might try to look
13 that up on mine --

14 MIKE: Yes.

15 KEVIN CLIKMAN: -- before I ask them.

16 MIKE: Just tell them that we're
17 periodically getting a, what is it, 20, 40, 60, 80, it
18 looks like about a 90 kilometer by 90 kilometer grid.

19 KEVIN CLIKMAN: Yes. Actually if you see
20 on the right side there, it says 92 by 92.

21 MIKE: Okay.

22 KEVIN CLIKMAN: At least your counting was
23 good.

24 MIKE: And I didn't use my magnifying glass.

25 KEVIN CLIKMAN: Yes, see.

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1 MIKE: Maybe, you know, I'd poke around and
2 see if they know, you know, what's going on. I'm going
3 to send a second email around and maybe you can start
4 to poke around for it.

5 KEVIN CLIKMAN: Sure.

6 MIKE: I explained to you earlier that we
7 got a request for a forecast out to the weekend because
8 they're going to be moving equipment and then we're going
9 to have personnel on site.

10 Why don't we take a wild ass guess and ask
11 for somebody to deploy a 10 meter (indiscernible, possibly
12 "Met") tower. They're moving equipment there, let's
13 just ask the question. Bruce was our PMT, I guess,
14 Coordinator.

15 KEVIN CLIKMAN: Okay.

16 MIKE: I don't know who his equivalent is,
17 but let me write that up.

18 KEVIN CLIKMAN: Okay. But who are the people
19 moving the equipment?

20 MIKE: I don't know, I didn't get that detail.

21 KEVIN CLIKMAN: Okay.

22 MIKE: I guess the military's probably
23 moving it.

24 KEVIN CLIKMAN: Okay. I didn't know if it
25 was military, or USAID, or if it was --

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1 MIKE: Well, yes. That I don't know. So
2 I guess we got to find out those logistics. But, you
3 know, if we ain't getting data from anybody else and
4 they're moving stuff over there, why not put up a Met
5 tower.

6 KEVIN CLIKMAN: Yes, while they're doing
7 it.

8 MIKE: Yes.

9 KEVIN CLIKMAN: Well, there's no harm in
10 asking, right?

11 MIKE: Yes. All they can do is say no.

12 KEVIN CLIKMAN: Exactly.

13 MIKE: So let me write it up and I'll send
14 that down and then I'll do the other cap, yes tap electric,
15 Tokyo Electric email.

16 KEVIN CLIKMAN: Okay. Yes, and I'll give
17 NARAC a call and see if they have any (indiscernible,
18 possibly *) certainly the first one.

19 MIKE: Right.

20 KEVIN CLIKMAN: Wind height will be easy
21 for them.

22 MIKE: Right.

23 KEVIN CLIKMAN: Okay. Yes, so that's it.

24 MIKE: Okay.

25 KEVIN CLIKMAN: All right. Thanks.

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MIKE: Bye.

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(CONFERENCE CALL INITIATED)

MIKE: Mike (indiscernible, possibly "Nuzigas").

KEVIN CLIKMAN: Hey Mike, it's Kevin.

MIKE: Hi.

KEVIN CLIKMAN: Hey, I was hoping you would still be here. I just spoke with the International Liaison Team and they think that it's worth bringing up the request that you put together to either send to the Department of State. We have a phone call with them at 9:30 apparently tonight --

MIKE: Okay.

KEVIN CLIKMAN: -- or the State Department to find out who's going over and if they have this kind of capability. And apparently we also have some contacts downtown that they were thinking about sending it to.

MIKE: Okay.

KEVIN CLIKMAN: I don't know who those are.

MIKE: Yes, there are vendors out there that have, I think I mentioned in there that we would need power and that may be an issue. But there are designs with solar power and backup.

KEVIN CLIKMAN: Okay. Well, I didn't know if you'd be able to come down if you're not too busy

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1 right now and kind of help me write up more of a formal
2 request?

3 MIKE: Okay.

4 KEVIN CLIKMAN: You know, to kind of get
5 it out of the personal email form and --

6 MIKE: Right.

7 KEVIN CLIKMAN: -- and more into a, you
8 know, they were talking about distributing this to the
9 Department of State, or the State Department. I said
10 well not in this form, let me put it into a better format
11 for you.

12 MIKE: Okay.

13 KEVIN CLIKMAN: So I was wondering if you
14 might be able to come down, if you're not too busy and
15 help me out with that.

16 MIKE: Yes. I was just finishing up and
17 you caught me at the right time because I was just finishing
18 the email about getting data from Tokyo Electric.

19 Let me finish that up and I'll zap it off
20 to you. And I thought, I'm going to send it to you or
21 to PMT because I think rather than it going, it shouldn't
22 come from me, it should come from PMT Meteorology.

23 KEVIN CLIKMAN: Okay.

24 MIKE: And then all you have to do extract
25 the text out of there into a different email from PMT

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1 to Liaison.

2 KEVIN CLIKMAN: Yes.

3 MIKE: Okay?

4 KEVIN CLIKMAN: Okay, sounds good.

5 MIKE: So give me about ten minutes.

6 KEVIN CLIKMAN: Yes. No problem.

7 MIKE: All right.

8 KEVIN CLIKMAN: Bye. Thanks.

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(CONFERENCE CALL INITIATED)

TOM NESTER (phonetic): NARAC, Tom Nester.

KEVIN CLIKMAN: Hi, this is Kevin Clickman from the NRC. I was hoping to speak with a meteorologist on duty.

TOM NESTOR: Yes, hang on just a second.

KEVIN CLIKMAN: Thank you.

PHIL: NARAC, this is Phil speaking.

KEVIN CLIKMAN: Hi, this is Kevin Clickman from the NRC.

PHIL: Hey, Kevin. How's it going?

KEVIN CLIKMAN: Good. How are you?

PHIL: Yes, we talked a few days ago.

KEVIN CLIKMAN: Yes, yes.

PHIL: What's up?

KEVIN CLIKMAN: I have some very basic questions about the wharf model that you're running --

PHIL: Absolutely.

KEVIN CLIKMAN: -- and the output we're getting. First off, what is the wind height of the data that you're providing? I assume it's either 10 or 2 meters, something like that.

PHIL: (Indiscernible, possibly "2 meters*"), it's near surface.

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1 KEVIN CLIKMAN: Two meters, okay. And do
2 you know how the stability classes are being calculated.

3 PHIL: That's a brand new field. Actually
4 for the previous sessions, we were analyzing wind speed,
5 time of day, that kind of thing.

6 KEVIN CLIKMAN: Okay.

7 PHIL: The person who runs the model actually
8 saw us doing that and turned on a formalization to do
9 it. So unfortunately, I don't know. I'm assuming he's
10 probably using the lookup table, but I can't say for
11 sure because he doesn't work this shift.

12 KEVIN CLIKMAN: Okay. So what is the wind
13 speed, time of day, (indiscernible, possibly "solar")
14 installation, and that kind of deal?

15 PHIL: Yes. Up until just today where now
16 he's turning it to be calculated. But I don't know the
17 method because it's the first time I've seen it. I can
18 query and make a note in the log so we can answer this
19 question in the future.

20 KEVIN CLIKMAN: Yes, if you could.

21 PHIL: Yes.

22 KEVIN CLIKMAN: Because it's usually either
23 that way or Delta T, you know, that kind of thing.

24 PHIL: Wharf actually have that so you
25 couldn't do it based on Delta T and PBL (indiscernible,

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1 possibly "hike") because Wharf calculates all that stuff.

2 But I'll find out if he's using just, like, a simple
3 PASCA lookup table or he's using model physics to try
4 to calculate it.

5 KEVIN CLIKMAN: Okay, that'll be great.
6 And just one other question about stability, is it A
7 through E or A through F?

8 PHIL: A through E.

9 KEVIN CLIKMAN: A through E.

10 PHIL: F is a very rare condition to get.

11 KEVIN CLIKMAN: That's what I assumed, but
12 I just wanted to --

13 PHIL: And you almost never get F unless,
14 well, you're a meteorologist, so you know how hard it
15 is to get F.

16 KEVIN CLIKMAN: Yes. And on the Coast of
17 Japan, we're definitely not going to get it there.

18 PHIL: Exactly.

19 KEVIN CLIKMAN: Okay. All right. Well
20 that's all the questions I had.

21 PHIL: All right, Kevin.

22 KEVIN CLIKMAN: All right. Well, I thank
23 you.

24 PHIL: Talk to you later.

25 KEVIN CLIKMAN: Thank you very much. Bye

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Official Transcript of Proceedings
NUCLEAR REGULATORY COMMISSION

Title: Japan's Fukushima Daiichi
PMT NRC Meteorologist Audio Files

Docket Number: N/A

Location: N/A

Date: March 17, 2011

Work Order No.: NRC-4222

Pages 1-13

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4 JAPAN'S FUKUSHIMA DAIICHI
5 PMT NRC METEOROLOGIST AUDIO FILES

6 + + + + +

7 THURSDAY,

8 MARCH 17, 2011

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(CONFERENCE CALL INITIATED)

0%FFIA2602965094

TERRY DIXON: Reachback Operation Center,
this is Terry (phonetic).

KEVIN: Hi. I was hoping to speak with
somebody about the aerial monitoring results from the
flight. This is Kevin (phonetic).

TERRY DIXON: Hi. Oh, Kevin. Sorry, who
are you with?

KEVIN: The Nuclear Regulatory Commission.

TERRY DIXON: Hi. You know, I got a call
from someone earlier, a Tom Galletta.

KEVIN: Yes. Yes, I'm his relief for the
next shift.

TERRY DIXON: Oh, okay. I tried to call
his number back but I wasn't able to connect.

KEVIN: Okay. I think he might have given
you a different phone number. I could give you the
Meteorological Station phone number.

TERRY DIXON: Sure. Actually if I could
have that, that would be great.

KEVIN: Yes, sure. It's 301-816 --

TERRY DIXON: 816.

KEVIN: 5401.

TERRY DIXON: Oh, okay. All right.

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1 Actually I went ahead and contacted the NIT. They're
2 actually controlling all of the access to any data,
3 fielding any questions and things like that. They're
4 actually being sent through them first, so I can give
5 you the number to the NIT.

6 KEVIN: Sure.

7 TERRY DIXON: They are aware that you are
8 inquiring so I'm sure they're expecting your call.

9 KEVIN: Okay, and what does that stand for?

10 TERRY DIXON: The Nuclear Incident Team.

11 KEVIN: Nuclear Incident Team, okay.

12 TERRY DIXON: Okay? And their phone number
13 is 202-586-8100.

14 KEVIN: 8100, okay. And so they're handling
15 all the flight data information?

16 TERRY DIXON: Well, all of the access to
17 any data.

18 KEVIN: Oh, the access, okay. Yes, I'm just
19 trying to find out some times.

20 TERRY DIXON: Access questions, anything.

21 KEVIN: Okay, yes. I'm just trying to find
22 out some time stamps for some of this data.

23 TERRY DIXON: Okay. Yes, they would
24 definitely be able to help you.

25 KEVIN: Okay.

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1 TERRY DIXON: Okay.

2 KEVIN: All right and, I'm sorry, what was
3 your name again?

4 TERRY DIXON: My name is Terry Dixon
5 (phonetic).

6 KEVIN: Terry Dixon, okay.

7 TERRY DIXON: Yes. Thanks, Kevin.

8 KEVIN: All right. All right, well, thank
9 you very much.

10 TERRY DIXON: Okay, you're welcome.

11 KEVIN: All right, bye-bye.

12 TERRY DIXON: Bye-bye.

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(CONFERENCE CALL INITIATED)

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MALE PARTICIPANT: You have reached the
United States Department of Energy Operation Center.
Your call is being transferred to a DOE Watch Officer.

ANTHONY: Hello. Anthony (phonetic)
speaking. Can I help you?

KEVIN QUINLAN: Hi, this is Kevin Quinlan
from the Nuclear Regulatory Commission. I was hoping
to get some information about the flight that was conducted
today.

ANTHONY: I'm sorry, sir. What's your name
again?

KEVIN QUINLAN: Kevin Quinlan.

ANTHONY: Spell your last name.

KEVIN QUINLAN: Last name is Q-U-I-N-L-A-N.

ANTHONY: Okay. Hold on one second. Sorry.

(Pause.)

ANTHONY: Okay, Kevin. You're connected
with NIT Ops.

KEVIN QUINLAN: Great. Thank you.

BOB JARRELL: (Indiscernible, possibly FN.)
This is Bob Jarrell.

KEVIN QUINLAN: Hi, this is Kevin Quinlan
from the Nuclear Regulatory Commission.

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1 BOB JARRELL: Yes.

2 KEVIN QUINLAN: I was hoping to get a little
3 bit of information about the flight that was conducted
4 today.

5 BOB JARRELL: Okay. The information I
6 believe is going to be in the evening SitRep.

7 KEVIN QUINLAN: Okay. I was just hoping
8 if you could provide me with some times. Do you know
9 when the evening report's coming out?

10 BOB JARRELL: Should be out around 1800.

11 KEVIN QUINLAN: Okay, so two hours from now.
12 All right. Would you be able to provide me any at least
13 flight time stamps before then?

14 BOB JARRELL: I'm not sure what you mean.

15 KEVIN QUINLAN: Well, I'm the meteorologist
16 and we were trying to figure out the, we've started
17 receiving on-site meteorological data through the Embassy
18 and we were hoping to figure out the exact time that
19 the flight was over the site area, like maybe within
20 five miles of the site itself, so that we can compare
21 that with the on-site meteorological data and get an
22 idea of exactly which direction the wind was blowing
23 while the plane was in the air.

24 BOB JARRELL: Yes. Okay, let me ask here.
25 Just a second.

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1 (Pause.)

2 BOB JARRELL: Yes, it looks like they were
3 flown, a helicopter was flown about 2125 Eastern Time
4 and the C-12 about 2150 Eastern Time and both landed
5 at 0130 Eastern Time.

6 KEVIN QUINLAN: Landed 0100 Eastern Time?

7 BOB JARRELL: 0130.

8 KEVIN QUINLAN: 130, okay. So that was --
9 sorry, the first two for the helicopter and the C-12,
10 those were the times they took off or times they were
11 over the flight?

12 BOB JARRELL: Well, departed I gave you and
13 then landed. They both landed at 0130.

14 KEVIN QUINLAN: Okay. So the first two
15 numbers were the departure times then?

16 BOB JARRELL: Correct.

17 KEVIN QUINLAN: Okay. All right, well,
18 that's good. That narrows it down to a good four-hour
19 range for us then.

20 BOB JARRELL: Yes, yes.

21 KEVIN QUINLAN: Okay. All right, well, you
22 said your name was Bob?

23 BOB JARRELL: Bob, Bob Jarrell, yes.

24 KEVIN QUINLAN: What was the last name?

25 BOB JARRELL: Jarrell.

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1 KEVIN QUINLAN: Jarrell, okay. Okay, all
2 right, well, thank you very much for the help.

3 BOB JARRELL: Okay.

4 KEVIN QUINLAN: All right, bye-bye.

5 BOB JARRELL: Bye.
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(CONFERENCE CALL INITIATED)

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FEMALE PARTICIPANT: Hello, you have reached
the National Weather Service Strategic Planning and Policy
Office.

FEMALE PARTICIPANT: Your call is now being
transferred. Please hold.

JOHN SOKICH: You've reached John Sokich.
Leave your name and number and I --

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(CONFERENCE CALL INITIATED)

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JOHN: Hello.

DONALD COOL: John (phonetic)?

JOHN: Yes.

DONALD COOL: This is Donald Cool. I'm Protective Measures Team Director now at NRC for the afternoon shift.

JOHN: Okay.

DONALD COOL: Following up on a call that we had had with you a little bit earlier about the information that had apparently been put out on the AID call this afternoon that got misinterpreted.

JOHN: Yes.

DONALD COOL: What our Executive --

JOHN: And I just want to whine a little bit, but I actually, that's why I talked about it in the pre-call, like 1:40 or something like that, to make sure everybody understood what I was going to do.

DONALD COOL: Well, I'm not sure what happened there because I came in late in the transition so I wasn't part of that call, but our Executive Team wondered what effort was being made to make sure that the other folks on the call hadn't gotten the misinterpretation.

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1 JOHN: I haven't done anything.

2 DONALD COOL: Is there somebody else that
3 I should be contacting at AID then that would be part
4 of that call and do you have their number?

5 JOHN: Yes. I'm always afraid of these kind
6 of things, you know?

7 DONALD COOL: Yes, I know. This is an event.
8 Everything will be misinterpreted and misunderstood.
9 Next question.

10 JOHN: I'm looking for the number here. I
11 would call Bette Cook, USAID, at 202-712-4417.

12 DONALD COOL: Bette Cook at 202-712-4417.

13 JOHN: Yes.

14 DONALD COOL: Thank you.

15 JOHN: Okay.

16 DONALD COOL: Have a good day.

17 JOHN: Bye-bye.

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(CONFERENCE CALL INITIATED)

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KAREN: NARAC, this is Karen (phonetic).

KEVIN QUINLAN: Hi, this is Kevin Quinlan from the Nuclear Regulatory Commission. Could I please speak with Phil Vogt, please?

KAREN: Okay. Kevin, what was your last name again?

KEVIN QUINLAN: My last name is Quinlan, Q-U-I-N-L-A-N.

KAREN: Okay, and you're with what agency again did you say?

KEVIN QUINLAN: The NRC.

KAREN: NRC, okay. Just one moment, Kevin.

KEVIN QUINLAN: Thank you.

(Pause.)

KAREN: Kevin, is this urgent? Can he call you right back?

KEVIN QUINLAN: Yes, absolutely.

KAREN: Okay, what is your phone number?

KEVIN QUINLAN: 301-816 --

KAREN: 816.

KEVIN QUINLAN: 5401.

KAREN: 5401.

KEVIN QUINLAN: Okay?

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1 KAREN: Okay, I'll let him know.

2 KEVIN QUINLAN: Thank you.

3 KAREN: Yes, bye.

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5 PMT NRC METEOROLOGIST AUDIO FILES

6 + + + + +

7 FRIDAY,
8 MARCH 18, 2011

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(CONFERENCE CALL INITIATED)

RANDALL SHRUELL: (Inaudible.)

TOM GALLETTA: Hi, this is a recorded line.

This is Tom Galletta at the NRC Operations Center in Maryland.

RANDALL SHRUELL: Yes.

TOM GALLETTA: Okay, I've been receiving -- Well and I haven't received in a few days, output from the high split model. I don't know if they're coming in by fax or email. Can you help me out with that? Getting --

RANDALL SHRUELL: Steve Fine is the focal point for the distribution of the high split model.

TOM GALLETTA: Okay, last name again was?

RANDALL SHRUELL: Fine, F-I-N-E. He's at ARL.

TOM GALLETTA: At ARL, okay.

RANDALL SHRUELL: Steve.Fine@noaa.gov.

TOM GALLETTA: Steve.Fine, it's, S-T-E-V-E?

RANDALL SHRUELL: S-T-E-V-E-N. Steven.Fine, I'm sorry. Steven.Fine@noaa.gov.

TOM GALLETTA: NOAA.gov, okay.

RANDALL SHRUELL: And so you haven't been getting it. Sorry, what was your name again?

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1 TOM GALLETTA: Galletta. Tom Galletta.
2 RANDALL SHRUELL: Tom.
3 TOM GALLETTA: And I didn't catch your name.
4 RANDALL SHRUELL: Galletta. Randall
5 Shruell. I'm the CDD (phonetic) meteorologist on duty.
6 G-O-L-E-T-T-A?
7 TOM GALLETTA: G-A-L-L-E-T-T-A.
8 RANDALL SHRUELL: Okay.
9 TOM GALLETTA: Okay, so your last name again?
10 Spell it.
11 RANDALL SHRUELL: S-H-R-U-E-L-L. Are you
12 with the NRC?
13 TOM GALLETTA: Yes. S-H-R-U-E-L-L?
14 RANDALL SHRUELL: Yes.
15 TOM GALLETTA: Okay.
16 RANDALL SHRUELL: And you normally get it
17 through the IAEA, right?
18 TOM GALLETTA: I honestly don't know.
19 RANDALL SHRUELL: Okay.
20 TOM GALLETTA: I do see IAEA responses here
21 on the cover sheet. And the high split information --
22 RANDALL SHRUELL: He has, Steve Fines has
23 set up a distribution list.
24 TOM GALLETTA: Okay, that's what I want,
25 to get on the distribution.

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1 RANDALL SHRUELL: Andthatdistributionlist
2 I, you know I have no -- He'll have to resend it to me.
3 I need to make sure he resends it to me. So when I
4 send out these runs, you know, if you're going to be
5 included on it, I need to get a new list. Or maybe he
6 needs to place on the list and then I would just, you
7 know, that would be it. But --

8 TOM GALLETTA: What's your email, Randall?

9 RANDALL SHRUELL: sdm@noaa.gov.

10 TOM GALLETTA: I'm sorry, you got to say
11 that again.

12 RANDALL SHRUELL: That's, Sam, Delta, Mike.

13 TOM GALLETTA: Sam, Delta, Mike.

14 RANDALL SHRUELL: At noaa.gov. But, you
15 know, Steven is the focal point to that. I can't allow
16 or disallow any of this, I don't have the authority.

17 TOM GALLETTA: Okay. But you're a
18 meteorologist and he's also a meteorologist?

19 RANDALL SHRUELL: He works at the Air
20 Resources Lab, he's the director.

21 TOM GALLETTA: Okay. All right, I'll give
22 him a call or send him an email. I've got a number here,
23 301-713-2614.

24 RANDALL SHRUELL: 2614, that sounds like
25 the right office. I don't have the number right in front

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1 of me. But I can look, let me just look right here,
2 hold on. (Inaudible) contacts, what number did you say
3 you had?

4 TOM GALLETTA: 301-713-2614.

5 RANDALL SHRUELL: 2614. Yes, that's the
6 emergency number. But that should get you somebody in
7 that office. Okay, and I'll try both the phone and the
8 email route to success here.

9 RANDALL SHRUELL: Okay. Very good.

10 TOM GALLETTA: Thanks for the help.

11 RANDALL SHRUELL: Okay, Tom.

12 TOM GALLETTA: All right.

13 RANDALL SHRUELL: Bye.

14 TOM GALLETTA: Bye.

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(CONFERENCE CALL INITIATED)

AUTOMATED MESSAGE: This is NOAA's Air Resources Laboratory. If this is during normal business hours please dial 0 for an operator. Otherwise, if this an emergency, please call the NOAA senior duty meteorologist at 301-763-8298. If this is the FDM please leave a message and we will return your call as soon as possible. Thanks.

OPERATOR: Please wait for the tone. Or, to transfer to another extension, you may dial it now. Your call is now being transferred. Please hold.

FEMALE PARTICIPANT: ARL, (inaudible).

TOM GALLETTA: I was trying to reach Steven Fine.

FEMALE PARTICIPANT: He works upstairs. Let me give you the number he's --

TOM GALLETTA: Okay.

FEMALE PARTICIPANT: Let's see. 301.

TOM GALLETTA: 301.

FEMALE PARTICIPANT: 73, wait a minute. 734.

TOM GALLETTA: 734.

FEMALE PARTICIPANT: 1150.

TOM GALLETTA: 1150. Very good.

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1 FEMALE PARTICIPANT: Okay.

2 TOM GALLETTA: Thank you.

3 FEMALE PARTICIPANT: Sure.

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(CONFERENCE CALL INITIATED)

TRINICA (phonetic): (Inaudible) Research,
Trinica (phonetic) speaking.

TOM GALLETTA: Hi. I'm trying to reach
Steven Fine.

TRINICA: He's not in the office until
Monday.

TOM GALLETTA: Okay. This is a recorded
line, this is Tom Galletta at NRC Headquarters in Rockville,
Maryland. I'm trying to get on distribution list for
the high split data.

TRINICA: You probably can get that info
from his executive officer, Chris Beaverson. But I
haven't seen him, I'm not sure if he's made it in the
office yet. I can put you into his voicemail.

TOM GALLETTA: Well okay. Well can you give
me his --

TRINICA: I can give you his number and put
into the voicemail.

TOM GALLETTA: And can you also give me an
email, please?

TRINICA: It's Chris.

TOM GALLETTA: C-H-R-I-S?

TRINICA: Yes, dot Beaverson --

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1 TOM GALLETTA: Spell it.
2 TRINICA: B-E-A --
3 TOM GALLETTA: Is that B as in boy?
4 TRINICA: Yes, B-E-A --
5 TOM GALLETTA: B-E-A --
6 TRINICA: V-E-R-S-O-N. Beaverson.
7 TOM GALLETTA: B-A-E-R-S-O-N.
8 TRINICA: B-E-A-V-E-R-S-O-N.
9 TOM GALLETTA: B-E-A-V-E-R-S-O-N?
10 TRINICA: Yes. At NOAA.gov.
11 TOM GALLETTA: Okay. And Chris was just
12 simply, C-H-R-I-S?
13 TRINICA: Yes. Okay, hold on.
14 TOM GALLETTA: Okay, the phone number
15 please.
16 TRINICA: 734-1013.
17 TOM GALLETTA: 734-1013. Okay, good.
18 Thank you.
19 TRINICA: Hold on.
20 CHRIS BEAVERSON: Chris Beaverton,
21 (inaudible.)
22 TOM GALLETTA: Chris?
23 CHRIS BEAVERSON: Yes.
24 TOM GALLETTA: Chris, this is a recorded
25 line. This Tom Galletta at NRC Headquarters, Rockville,

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1 Maryland. I'm a meteorologist on shift right now for
2 the Japan emergency.

3 CHRIS BEAVERSON: Yes.

4 TOM GALLETTA: I'm trying to get on a
5 distribution to receive the high split data, graphics,
6 et cetera, package.

7 CHRIS BEAVERSON: Who are you with?

8 TOM GALLETTA: NRC.

9 CHRIS BEAVERSON: And what is that?

10 TOM GALLETTA: Nuclear Regulatory
11 Commission.

12 CHRIS BEAVERSON: Okay.

13 TOM GALLETTA: U.S. Nuclear Regulatory
14 Commission.

15 CHRIS BEAVERSON: Oh, okay. Sorry. Yes,
16 okay. We're providing this stuff to DoE. I'm not sure
17 where (inaudible). So you're NRC. What's the name again?

18 TOM GALLETTA: Galletta. Thomas Galletta.
19 I'm a meteorologist on staff.

20 CHRIS BEAVERSON: Okay. Galletta. Okay,
21 what's your phone number?

22 TOM GALLETTA: I'm going to give you the
23 Emergency Center here.

24 CHRIS BEAVERSON: Okay.

25 TOM GALLETTA: It's 301, and boy it's not

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1 even on the phone. 301-816-5401.

2 CHRIS BEAVERSON: Okay. And is there, where
3 do you want it to go? The NRC ER, Emergency Response
4 Center?

5 TOM GALLETTA: Yes.

6 CHRIS BEAVERSON: Is there a group email
7 box for that or what?

8 TOM GALLETTA: I was going to try and give
9 you my -- I was going to try and send you an email with
10 my station here in the emergency facility so that we
11 --

12 CHRIS BEAVERSON: Okay. You can send it
13 to me. My email is Chris.Beaverson.

14 TOM GALLETTA: C-H-R-I-S?

15 CHRIS BEAVERSON: Right. Dot Beaverson,
16 B-E-A-V-E-R-S-O-N, at NOAA, N-O-A-A, .gov.

17 TOM GALLETTA: Okay.

18 CHRIS BEAVERSON: Yes, just send me an email
19 with the request and then I'll route it to our ARL, the
20 Air Resources Laboratory. They're the ones that do the
21 high split.

22 And I know that they're doing model runs
23 through the weather service, but they're providing it
24 to the IAEA as well as DoE. I don't know what the broader
25 distribution is but I'll check that for you.

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1 TOM GALLETTA: Okay. Is that something I
2 can get my email on that list also?

3 CHRIS BEAVERSON: I don't know, because it's
4 somewhat problematic because we don't have source-terms
5 so we're doing just unit list models at this point so
6 they don't really mean anything. So we've kind of, that's
7 why we haven't really promulgated this in any public
8 way. You know, it's kind of a research type --

9 TOM GALLETTA: So you're just kind of giving
10 a unit thing and we could put our source-term on your
11 unit and then --

12 CHRIS BEAVERSON: Correct.

13 TOM GALLETTA: Okay, that wouldn't hurt.

14 CHRIS BEAVERSON: Yes. Okay. Yes, let me
15 find the right routing and I will get back to you, okay?

16 TOM GALLETTA: Okay, and I'll send you --

17 CHRIS BEAVERSON: Send me an email so I have
18 yours.

19 TOM GALLETTA: Yes, I'll do that right now.

20 CHRIS BEAVERSON: Okay. Great. Thanks.

21 TOM GALLETTA: Thank you.

22 CHRIS BEAVERSON: Bye.

23 TOM GALLETTA: Bye.
24
25

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(CONFERENCE CALL INITIATED)

AUTOMATED MESSAGE: Your call has been forwarded to an automatic voice message system. George Athie (phonetic), is not available. At the tone please record your message. When you have finished recording you may hang up or press 1 for more options.

TOM GALLETTA: Hi, George. Tom Galletta in the Operations Center here. We had a question about, I got John Parillo sitting here with me. We had a question about the doses didn't seem to be dropping off. And this particular run we were doing, it was a 15-hour run with a westerly wind, 7.5 meters to the second, out to -- And it should have gone a couple hundred miles in the 15 hours.

And the doses weren't dropping off much, 15 down to like 9.9 from 15 miles out to 50 miles.

Sorry for the long-winded message. Where am I at here? 301-816-5401, if you got a minute. Thanks.

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Title: Japan's Fukushima Daiichi
PMT NRC Meteorologist Audio Files

Docket Number: N/A

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Date: March 19, 2011

Work Order No.: NRC-4222

Pages 1-9

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5 PMT NRC METEOROLOGIST AUDIO FILES

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7 SATURDAY,

8 MARCH 19, 2011

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(CONFERENCE CALL INITIATED)

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MICHAEL: Hello. NARAC Center. Michael
(phonetic) speaking.

DAVE BROWN: Hi. This is Dave Brown. I'm
working in the Protective Measures Team at the NRC.
I had a question about the WRF forecast model.

MICHAEL: Oh, okay. Is this associated with
an upcoming discussion on the source term?

DAVE BROWN: No.

MICHAEL: Okay.

DAVE BROWN: No, this is just on the weather
data that we receive periodically.

MICHAEL: Ron.

RON BASKETT: This is Ron Baskett with NARAC.

(Off microphone discussion)

RON BASKETT: Go ahead.

DAVE BROWN: Yes, I just had a quick question
about the WRF forecast model data that we are receiving
periodically.

RON BASKETT: Yes.

DAVE BROWN: We still have a gap in the data
looking back on March 13th starting at 2:00 p.m. until
about 6:00 p.m. on the 14th Japan Standard Time. I was
wondering if there might be a way to recreate the data

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1 for that gap.

2 RON BASKETT: Let's see. We probably need
3 to go after the -- trying to think. So are you looking
4 at maybe RASCAL, continuity of runs with RASCAL or
5 something?

6 DAVE BROWN: Yes. Yes, the guys here are
7 re-running some of the RASCAL runs to try to understand
8 some of the aerial measurement data that we're getting.

9 And it looks like we may have, based on some
10 information we have on weather in nearby cities, namely
11 Fukushima city, we don't have good weather data for other
12 cities because it seems like some of the towers were
13 knocked out for that time. The winds were blowing from
14 the southeast.

15 RON BASKETT: Oh, okay.

16 DAVE BROWN: And that would explain some
17 of the ground deposition that we're seeing from the AMS
18 data.

19 RON BASKETT: Oh, that is the period when
20 they have that (indiscernible, possibly sort of a) load
21 to the northwest of the plant?

22 DAVE BROWN: Right, but we can't sort of
23 predict that right now because we have this gap in our
24 weather data that I suspect might have some winds coming
25 in that direction.

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1 RON BASKETT: So actually, I mean, I would
2 say that it'd be better to use OBS rather than a forecast
3 model for the, you know, that data set. I mean, we
4 basically only use the WRF model to look forward and
5 whenever we do anything in the past to present we use
6 OBS. You have the OBS, right? Do you have observational
7 data from --

8 DAVE BROWN: Oh. No, we have no
9 observational data --

10 RON BASKETT: Oh, okay.

11 DAVE BROWN: -- for that time period and
12 the Sendai Airport doesn't have good data during that
13 time period, basically three observations during the
14 whole day.

15 RON BASKETT: (Indiscernible, possibly Can
16 you) see OBS in Fukushima Airport during that time frame?
17 See, look real quickly at that and then see if I can
18 just read those (indiscernible, possibly OB 2) then.
19 How about that?

20 DAVE BROWN: That'd be great.

21 RON BASKETT: At Fukushima?

22 DAVE BROWN: Yes.

23 RON BASKETT: Hold a sec.

24 (Pause.)

25 RON BASKETT: Let's see, who am I speaking

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1 to again?

2 DAVE BROWN: This is David Brown.

3 RON BASKETT: Okay, David, do you have the
4 Zulu times? It'd be a lot easier if you gave me those
5 in Zulu for which you want the data.

6 DAVE BROWN: Okay. Yes, I understand.
7 Let's see, 0500 on the 13th for the following 28 hours.

8 RON BASKETT: For 28 hours. Oh, I see. You
9 said the 14th 6:00 p.m., okay. Probably best if I, the
10 14 March at --

11 DAVE BROWN: So it needs from March 13th
12 0500 Zulu time to March 14th 0900.

13 RON BASKETT: Okay.

14 DAVE BROWN: And one of the reasons I was
15 asking about using a forecast model for this is I thought
16 it would be more representative even because Fukushima
17 is inland in the mountains and so I was concerned about
18 how representative that would be of, you know, the coastal
19 site but if you have the observational data, that'd be
20 great. Do you think it might just be easier to email
21 it to me?

22 RON BASKETT: That would be but I didn't
23 realize it was 28 hours. I thought it was four hours
24 and a day off there. Anyway, right, that would be the
25 thing to do, so email it to PMT02?

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1 DAVE BROWN: I'm sorry?

2 RON BASKETT: PMT02?

3 DAVE BROWN: 01.

4 RON BASKETT: 01. Oh, yes, you guys are
5 -- all right.

6 DAVE BROWN: Yes, 01 space hoc is the
7 meteorological station here.

8 RON BASKETT: Right.

9 DAVE BROWN: All right, great. And I'm sorry,
10 who am I speaking to?

11 RON BASKETT: This is Ron Baskett.

12 DAVE BROWN: Okay. Thanks, Ron.

13 RON BASKETT: Okay, Dave. Yes, we'll get
14 to that in a little bit here.

15 DAVE BROWN: Okay.

16 RON BASKETT: Okay.

17 DAVE BROWN: Thank you.

18 RON BASKETT: Sure.

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(CONFERENCE CALL INITIATED)

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KAREN: NARAC. This is Karen (phonetic).

MIKE MAZAIKA: Hi, this Mike Mazaika from
NRC.

KAREN: Hi, Mike.

MIKE MAZAIKA: How are you?

KAREN: Good.

MIKE MAZAIKA: I just got an email from Phil
Vogt.

KAREN: Oh, would you like to talk to Phil?

MIKE MAZAIKA: Yes, is he available?

KAREN: Yes, just one moment.

MIKE MAZAIKA: Thanks.

(Pause.)

PHIL VOGT: NARAC. This is Phil speaking.

MIKE MAZAIKA: Hi, Phil. This is Mike
Mazaika. I'm one of the meteorologists with NRC.

PHIL VOGT: Hey, we haven't talked yet.
I've been talking to Kevin (phonetic) all the time.

MIKE MAZAIKA: Right, right. Yes, I've been
floating during the past week helping out and I've just
been working second shift starting last night. Listen,
I got an email from you about half hour ago and it had
the latest WRF run.

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1 PHIL VOGT: Yes, our WRF run point forecast
2 for the plant output.

3 MIKE MAZAIKA: Right, and what I noticed
4 is what Kevin had been keying in to our RASCAL model
5 met data set, he had that out and he was basing it on
6 an email from a fellow by the name of Fernando, is it
7 Aluzzi?

8 PHIL VOGT: He's our night shift
9 meteorologist here.

10 MIKE MAZAIKA: Okay. The period of record
11 in the email that you sent me is a subset of the material
12 from Fernando's earlier email.

13 PHIL VOGT: Oh, interesting. I didn't
14 realize he'd already sent that.

15 MIKE MAZAIKA: Yes.

16 PHIL VOGT: I may have just sent you the,
17 oh, I didn't notice that.

18 MIKE MAZAIKA: And I checked them before
19 I called. They are all identical.

20 PHIL VOGT: Okay. That means that he beat
21 me to the punch.

22 MIKE MAZAIKA: Okay.

23 PHIL VOGT: And he didn't let me know he'd
24 done that so I wouldn't have done it anyway. All right
25 so, yes, I think we're going to be getting a new run

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1 going shortly. The person who runs our WRF model just
2 walked in the door. I'll send you an update just as
3 soon as we have one.

4 MIKE MAZAIKA: Okay. Give me a timeline,
5 couple hours?

6 PHIL VOGT: I think so. It takes at least
7 that long to run and then register in our system. It
8 doesn't take that long to run but then we have to register
9 it in our system so that we can process it. To do that
10 forecast we don't need it in our system so I would say
11 about an hour but I will check that and if it's something
12 different I'll give you a call back.

13 MIKE MAZAIKA: Okay, that's all right. I
14 just needed to inform the people above me that we didn't
15 really get technically yet a new data set.

16 PHIL VOGT: A new forecast. Okay, well,
17 I'm glad you caught that. I appreciate that.

18 MIKE MAZAIKA: Okay.

19 PHIL VOGT: All right, thank you.

20 MIKE MAZAIKA: Take care. Good to meet you.

21 PHIL VOGT: Yes, bye-bye.
22
23
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SAMHOUSTON: Goodevening, National Weather Service.

DAVID BROWN: Hi, my name's David Brown. I'm with the Nuclear Regulatory Commission.

SAM HOUSTON: Right, how can we help you this evening?

DAVID BROWN: Well, I'm looking for data. And I'm calling all over.

SAM HOUSTON: Right.

DAVID BROWN: So I understand if I'm barking up the wrong tree here.

I'm with the Protective Measures Team working in NRC headquarters. We're trying to, at this point, reconstruct some of the past events in Japan.

SAM HOUSTON: Right.

DAVID BROWN: We're missing weather data, surface wind speeds, wind direction, stability, even precipitation data for a period of time from, well, local time 9:00 a.m. on the 13th, Sunday, through the next 33 hours, really. I've been trying to --

SAM HOUSTON: What stations are you looking for, like their first order stations like Tokyo and --

DAVID BROWN: Well, the closest one, and

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1 I don't know how first order stations correspond to their
2 measurement --

3 SAM HOUSTON: Well, I'm saying first order,
4 that would be like if you're D.C. the Reagan Airport
5 would be like a first order type.

6 DAVID BROWN: Yeah. But what I'm saying
7 is I don't have any idea what stations are which. So
8 what we've been doing is certainly using things like
9 commercial weather data.

10 SAM HOUSTON: Well, I would think Tokyo
11 Airport, there would just be data. It's like there'd
12 be an observer even if their automated systems were down.

13 So that's what I meant by first order. So --

14 DAVID BROWN: Okay.

15 SAM HOUSTON: -- in other words, would Tokyo
16 Airport be one of the places you'd be wanting data from?

17 DAVID BROWN: I don't think so, because it's
18 so far away.

19 SAMHOUSTON: Yeah, I didn't think so. Okay.

20 DAVID BROWN: But let me give you an idea
21 of what we're doing. We've got some measurements of
22 how much radioactive material is deposited on the ground
23 within about 30 kilometers of this site, the Fukushima
24 site.

25 And so we're really interested in, as best

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1 we can, knowing where the wind was blowing, what direction
2 the wind was blowing, as close to Fukushima as possible.

3 So data we've used so far is from Sendai,
4 that's the end DAI, from Onahama, which is to the south,
5 also probably about 30 kilometers away. But they seem
6 to be recording data only during the daytime, Japan time.

7 SAM HOUSTON: Right. But those are airport
8 stations?

9 DAVID BROWN: Sendai is an airport station,
10 Onahama, I'm not sure. It's not labeled as an airport
11 station.

12 And so we're still left with some gaps in
13 our data during a time when we think might be important
14 --

15 SAM HOUSTON: Right.

16 DAVID BROWN: -- with regard to when the
17 event occurred. We've, of course, been working with
18 the Japanese meteorological agency to request actual
19 onsite data. Because this is a nuclear utility. They're
20 required to have an observational MET tower.

21 SAM HOUSTON: Right.

22 DAVID BROWN: But I just haven't gotten that
23 yet.

24 SAMHOUSTON: Yeah. That stuff, I know even,
25 I had Hurricane, what was it, Andrew, down in Miami in

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1 '92. And I had to go through quite a few steps to get
2 the data from there.

3 And I'm sure it's probably similar. In other
4 words, it doesn't typically go into a meteorological
5 collective, like the typical data.

6 DAVID BROWN: Uh-huh.

7 SAM HOUSTON: So you've got to go to a special
8 source type thing. But I bet you what's happening with
9 those two locations, since they're only daytime, they're
10 probably airports that -- in other words, it's similar.

11 Even here in Hawaii I have an airport that
12 only has daytime observations. But there's just no
13 nighttime backup. So I have to nail the forecast for
14 them for aircraft.

15 DAVID BROWN: Okay.

16 SAM HOUSTON: I just don't have anybody going
17 in and out of there at night. And there's no observer
18 there.

19 Now, I don't know for sure that's what's
20 happening there. But if you don't have any type of
21 automated observations beyond the daytime hours, I would
22 suggest that might be one of the factors in the data
23 not being available at night.

24 DAVID BROWN: Okay.

25 SAM HOUSTON: So it may just not exist at

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1 those locations. Now, I don't know that independently,
2 but I'm just suggesting that might be similar if they
3 are landing strips or actual airports. DAVID

4 BROWN: Okay. And so to the best of your knowledge, the
5 U.S. does not maintain an archive of even, I don't know,
6 even if we had something like a -- one of the things
7 we've been relying is a forecast model, which is on five
8 kilometer by five kilometer grid giving us expected wind
9 directions over the next 48 hours and wind speeds.

10 SAM HOUSTON: Is that the DMA model or is
11 that --

12 DAVID BROWN: Well, I guess it's the GSS
13 model that is the source of the information. And then
14 it's WRF model, which is --

15 SAM HOUSTON: Oh, that's the high res.

16 DAVID BROWN: -- high resolution model.
17 It's run by Lawrence Livermore right now, the NARAC group
18 who's giving us that information.

19 I also asked them if they could possibly
20 go back in time and run the model for the period of time
21 in which we're missing the data. That's not their first
22 priority right now.

23 SAM HOUSTON: Right, I'm sure, yeah. Right,
24 a hindcast on that would definitely be probably pretty
25 beneficial, especially if you don't have actual

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1 observations.

2 DAVID BROWN: Right. And that may be where
3 I go. But I was just calling around to see if there
4 might be other libraries of data available.

5 SAM HOUSTON: Wow, because I just don't think
6 we have anything local. I could maybe snoop around here.
7 Let me get those two locations in particular. Was it
8 Sendai, S-S-I --

9 DAVID BROWN: It's Sendai, S-E-N-D-A-I,
10 which is, as I understand, approximately 40 kilometers
11 north of Fukushima, the site. And Onahama --

12 SAM HOUSTON: O-N-O --

13 DAVID BROWN: -- O-N-A-H-A-M-A.

14 SAM HOUSTON: Okay.

15 DAVID BROWN: And I had here, at one point,
16 a map showing those distances. But what they are, are
17 both coastal locations similar to Fukushima and so we
18 think might be representative of the wind speeds and
19 directions at Fukushima. And, of course, one bounds
20 it to the north and the other one to the south.

21 SAM HOUSTON: Right.

22 DAVID BROWN: Based on when I pull it up
23 from, like I say, commercial sources like Weather
24 Underground, it is what I described. And it's what you
25 explained to me. It's just weather observations at the

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1 airport during the day.

2 SAM HOUSTON: Well, that's the suggestion,
3 yeah. If I only get observations during the day, I
4 typically think, oh yeah, that's probably just airport.
5 They may have like a control tower.

6 DAVID BROWN: Uh-huh.

7 SAM HOUSTON: And those guys may be doing
8 the observations, particularly like visibility. But
9 they may have a system out there. And it may be that
10 the data goes in to a different collective or something
11 too.

12 DAVID BROWN: Okay.

13 SAM HOUSTON: So it's possible. But when
14 you say, oh, I'm only able to get daytime observations
15 I think, oh yeah, because I think that happens in the
16 U.S. at some of the smaller airfields

17 DAVID BROWN: Sure, yeah. That makes sense.

18 SAM HOUSTON: Yeah. So that might be one
19 of the problems. But why don't I take a look at it.
20 What was your name again?

21 DAVID BROWN: David Brown.

22 SAM HOUSTON: Okay.

23 DAVID BROWN: Just like the color, brown.
24 And, of course, I'm on shift now. We've got three
25 meteorologists, well, I'm really a health physicist,

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1 but we've got guys working the weather station here around
2 the clock.

3 SAM HOUSTON: Right. What's your --

4 DAVID BROWN: So there'll always be someone
5 here. It's 301-816-5401.

6 SAM HOUSTON: Okay. How much longer are you
7 on shift there?

8 DAVID BROWN: I will be on here for another
9 five hours.

10 SAM HOUSTON: Okay. I'm here until 16Z.

11 DAVID BROWN: Okay.

12 SAM HOUSTON: I'll tell you what, I'll take
13 a little look and just see what I might have here locally.

14 DAVID BROWN: Okay, great.

15 SAM HOUSTON: And I'm the lead forecaster
16 out here tonight. So if something else comes up, just
17 ask for Sam. And I'm over here at the aviation desk.
18 We've got pretty quiet weather. I worked the tsunami
19 a week ago here. So it wasn't --

20 DAVID BROWN: Oh.

21 SAM HOUSTON: -- (indiscernible). We had
22 to put out the warnings on the radio and all that stuff
23 so --

24 DAVID BROWN: Right. That must have been
25 exciting.

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1 SAM HOUSTON: So that wasn't our night.

2 DAVID BROWN: Yeah.

3 SAM HOUSTON: Well, it wasn't bad here, but
4 unfortunately the consequences locally to where it hit
5 are far greater ramifications than --

6 DAVID BROWN: Oh, yeah.

7 SAM HOUSTON: -- what it did when the wave
8 left Japan.

9 DAVID BROWN: Right.

10 SAM HOUSTON: Yeah, well --

11 DAVID BROWN: It's been an exciting week
12 so far. And, I'm sorry, it's Sam, what's your last name
13 again?

14 SAM HOUSTON: Houston, like in Texas.

15 DAVID BROWN: Houston, okay. Great. And
16 thank you for looking into that.

17 SAM HOUSTON: Yeah, yeah. I can't guarantee
18 anything, but I'll see what I can snoop around. And
19 I'll probably be pretty much going to Web sites and things
20 like you have.

21 DAVID BROWN: Yeah.

22 SAM HOUSTON: But there could be some things
23 in our local Internet, maybe just because we have hurricane
24 responsibility out here and typhoon responsibility.

25 There's things that might exist somewhere

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1 in our system.

2 DAVID BROWN: Good.

3 SAM HOUSTON: And what I'll try to do is
4 touch base with you before you leave.

5 DAVID BROWN: That'd be great. And a key
6 thing would just be wind direction right now. Other
7 things are important too, but that would help us
8 reconstruct some of the --

9 SAM HOUSTON: Yeah, yeah. I can see. It's
10 kind of a hindcast type thing.

11 DAVID BROWN: Yeah.

12 SAM HOUSTON: Do you have some simple models
13 that you can plug that type of info in?

14 DAVID BROWN: Yeah. The models we use are
15 for radiation dose assessment.

16 SAM HOUSTON: Right.

17 DAVID BROWN: So the model input is very
18 straight forward. It's just columns of data, comma
19 separated, showing the date, time, wind direction, wind
20 speed, stability class and precipitation.

21 SAM HOUSTON: What about, do you get a sense,
22 sea breeze has not really been a factor down there probably
23 in that.

24 DAVID BROWN: We've been very --

25 SAM HOUSTON: There was a period in March.

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1 It's probably driven more by the tsunoptic flow -

2 DAVID BROWN: Yes.

3 SAM HOUSTON: -- this time of year I would
4 say, in March.

5 DAVID BROWN: That is what we've observed.

6 I did ask about sea breeze effects earlier. Like I say,
7 I'm not a professional meteorologist, but I did ask one
8 who was. And he said, yeah, given the time of year that
9 wasn't the primary concern.

10 SAM HOUSTON: Right.

11 DAVID BROWN: We are very fortunate, Japan
12 is very fortunate, that there's been very persistent
13 westerly winds.

14 SAM HOUSTON: Good, yeah.

15 DAVID BROWN: And it's just taking it over
16 the ocean.

17 SAM HOUSTON: Yeah.

18 DAVID BROWN: But there was clearly a time,
19 sometime during the 13th and 14th of March, when the
20 wind was from the southeast to the northwest.

21 We have, the Department of Energy has
22 equipment that allows us to survey large land areas.
23 We're seeing evidence of some of the wind clearly blew
24 from that direction for a time.

25 SAM HOUSTON: Okay.

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1 DAVID BROWN: It'd be good for us to have
2 an idea of how long, how persistent was that.

3 SAM HOUSTON: Right.

4 DAVID BROWN: So we can try to reconstruct
5 what happened.

6 SAM HOUSTON: Okay, David. Well, I'll look
7 into it here and try to get back to you in a little while.

8 DAVID BROWN: Great, thank you very much
9 then. Bye.

10 SAM HOUSTON: Thanks, bye.

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(CONFERENCE CALL INITIATED)

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MIKE: SDMs desk, this is Mike. May I help you?

DAVID BROWN: Hi, my name's David Brown. I'm on the Protective Measures Team at the Nuclear Regulatory Commission. And I had a question about the availability of data for a recent period on the past for Japan.

MIKE: Okay, let me stop you, because I'm not the duty meteorologist. He's over in another area on the floor.

DAVID BROWN: Okay.

MIKE: And he should be back in about two minutes.

DAVID BROWN: Okay.

MIKE: So could I have him call you back?

DAVID BROWN: Absolutely.

MIKE: Okay --

DAVID BROWN: The name is David Brown, again. And it's 301-816 --

MIKE: 816.

DAVID BROWN: 5401.

MIKE: 5401. Okay.

DAVID BROWN: And again, it's the Protective

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1 Measures Team.

2 MIKE: Okay.

3 DAVID BROWN: And the question has to go
4 with we've got a gap in weather data for March 13th.
5 And I was just going to ask for some advice on how best
6 to fill that gap.

7 MIKE: Okay. All right, I'll have Jeff give
8 you a call.

9 DAVID BROWN: Jeff?

10 MIKE: Oh, he's here right now. It'll just
11 save him another phone call.

12 DAVID BROWN: Okay.

13 (Pause)

14 JEFF STOUDT: Hello, this is Jeff Stoudt,
15 senior duty meteorologist.

16 DAVID BROWN: Hi, Jeff. This is Dave Brown.
17 I'm on the Protective Measures Team at the NRC.

18 JEFF STOUDT: Yes.

19 DAVID BROWN: I am working on a problem
20 helping our dose assessment folks here. We've been
21 getting meteorological forecast information from NARAC,
22 which provides the kinds of data that we need to run
23 dose assessment model RASCAL, wind speed, wind direction,
24 stability class, precipitation by hour.

25 As I went back and looked over the file that

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1 we've developed over the past week for Japan, I noticed
2 we had a gap in our data. I initially called NARAC to
3 see if they could do a special run to help me fill that
4 gap in the past.

5 They suggested we use observational data.

6 The trouble is we don't have a whole lot of observations
7 for this area in Japan for, we have --

8 JEFF STOUDT: For March 13th --

9 DAVID BROWN: -- from March 13th this essentially
10 the beginning of the --

11 JEFF STOUDT: That was last Sunday.

12 DAVID BROWN: Yeah.

13 JEFF STOUDT: Do you have a better pin point
14 in time for March 13th?

15 DAVID BROWN: Midnight.

16 JEFF STOUDT: That's UTC?

17 DAVID BROWN: Yep, UTC zero hour, all the
18 way through 0900 UTC on the 14th.

19 JEFF STOUDT: So the 13th, that would
20 actually be Saturday evening on the East Coast.

21 DAVID BROWN: Yep, 8 o'clock p.m.

22 JEFF STOUDT: That's still 09 UTC on the
23 14th.

24 DAVID BROWN: Correct. Now what I'm trying
25 to do is I'm going to go ahead and try to do this using

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1 some data available, of course, on the Internet for
2 Fukushima, Sendai, Onahama, cities that are relatively
3 close, within 30 to 40 kilometers or so.

4 I was wondering if you might have a better
5 source of data, especially that includes stability class.

6 Because most of the data that's available on the Internet,
7 of course, doesn't have stability. I'd have to infer
8 that from other conditions, like cloudiness, sunshine,
9 that kind of thing.

10 JEFF STOUDT: Is this meteorological
11 bounding data which you're seeking, which begins at the
12 surface and is carried aloft by a buoyant balloon to
13 high into the atmosphere?

14 DAVID BROWN: Yeah.

15 JEFF STOUDT: We call those RAOBs. It stands
16 for radiosonde observation.

17 DAVID BROWN: Okay. And I'm sorry, you're
18 telling me that's the data that may be available?

19 JEFF STOUDT: Well, those are the kinds of
20 data that come in the form of atmospheric boundings at
21 various levels, beginning at the surface and often sending
22 high into the atmosphere, even into the lower stratusphere
23 --

24 DAVID BROWN: Okay.

25 JEFF STOUDT: -- with most boundings. So

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1 asking is this the kind of data which you're seeking
2 to fill the gaps.

3 DAVID BROWN: Yeah. In this case it's just
4 the surface level data that we would need. And it would
5 be just wind speed, wind direction, stability class,
6 and rainfall or precipitation.

7 JEFF STOUDT: Okay. All except one of those
8 kind of data that you mentioned can be derived from surface
9 data. However, the stability classes begin at the surface,
10 but they involve measurements at several levels aloft.

11 DAVID BROWN: Yes, okay.

12 JEFF STOUDT: Although at relatively low
13 altitudes such as about 400 hectopascal hours, which
14 is approximately equivalent to 24,000 feet, even though
15 boundings usually quadruple that altitude, but still
16 24,000 feet is --

17 DAVID BROWN: Yeah, that's the kind of --

18 JEFF STOUDT: So that's about four and half
19 miles in --

20 DAVID BROWN: Yeah, we're definitely only
21 interested in --

22 JEFF STOUDT: -- the fly (phonetic).

23 DAVID BROWN: We're only interested in
24 measurements that are much closer to the surface, less
25 than 1,000 feet, typically close to the source, in this

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1 case close to the reactors.

2 JEFF STOUTD: As for here at the National
3 Centers for Environmental Prediction --

4 DAVID BROWN: Yeah.

5 JEFF STOUTD: -- I'm most familiar with the
6 RAOB and --

7 DAVID BROWN: Okay.

8 JEFF STOUTD: -- the upper air soundings.
9 And we keep those in our super computer in a handy location
10 out five days. After five days they age off. However
11 they might be available --

12 DAVID BROWN: Yeah.

13 JEFF STOUTD: -- in media, computer media
14 set or deeper down and not so easy to access.

15 DAVID BROWN: Okay.

16 JEFF STOUTD: But nevertheless, as far as
17 surface data goes, I'm not sure if those policies of
18 data storage also apply. I'm not sure of that.

19 DAVID BROWN: Yeah, okay. And that's
20 probably because you're more focused on environmental
21 predictions. Could you --

22 JEFF STOUTD: Well, we have specialists that
23 help to develop the programs that store, and retrieve
24 and manage data.

25 It's in a super computer and the specialist

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1 would be the best qualified to answer your questions.

2 And they generally work normal business hours.

3 DAVID BROWN: Normal business hours, okay.

4 JEFF STOUDT: Monday through Friday, 8:00
5 to 5:00 more or less.

6 DAVID BROWN: Right, okay. And in any case,
7 that data is data that was predicted by model or it's
8 just saying it's radiosonde data from RAOBs?

9 JEFF STOUDT: What?

10 DAVID BROWN: The data that you're talking
11 about is actual measured values?

12 JEFF STOUDT: Yes, those we actually observed
13 --

14 DAVID BROWN: Actually observed.

15 JEFF STOUDT: -- data and would serve as
16 input to numerical prediction models.

17 DAVID BROWN: Okay. Do you think --

18 JEFF STOUDT: Numerical prediction models
19 could be used to interpolate conditions that do inferring
20 conditions based on interpolation --

21 DAVID BROWN: Right.

22 JEFF STOUDT: -- and data gaps where there
23 normally would not be observed data anyway.

24 DAVID BROWN: Do you happen to know where
25 the closest observation point is for the data that you

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1 have to the Fukushima nuclear site?

2 JEFF STOUDT: Not off hand.

3 DAVID BROWN: Yeah.

4 JEFF STOUDT: They were not in that with
5 Japanese data.

6 DAVID BROWN: Uh-huh.

7 JEFF STOUDT: We know there is a rather dense
8 network of both surface and RAOB data over Japan, given
9 the high population and the highly industrialized society.

10 DAVID BROWN: Yeah.

11 JEFF STOUDT: We do know that there is a
12 rather dense network of both surface and upper air
13 meteorological data over Japan (indiscernible) on that.
14 We don't know much off the cuff.

15 DAVID BROWN: Right, yeah. We've been
16 trying to work through the Japanese meteorological agency,
17 with some success. But I don't believe we'll be able
18 to get the information very quickly.

19 The other thing we're trying to do is also
20 get the observations that were made directly onsite.
21 We've gotten some more recently, from about the 15th
22 on but not for the period for which we're missing data.

23 So, okay. Well, let me try other sources.

24 And like you say, if it comes to it, we'll come back
25 to you when your data experts are back in the office

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1 in the morning.

2 JEFF STOUDT: Yeah, we have the best
3 personnel coverage during the day, Monday.

4 DAVID BROWN: Yeah. Oh, of course, during
5 the day Monday, right, sorry.

6 JEFF STOUDT: That's when most of the
7 specialists would be at the workplace.

8 DAVID BROWN: Yeah.

9 JEFF STOUDT: And you can call the SDM, that
10 is the senior duty meteorologist, just as you have done
11 moments ago.

12 And in the meantime, I'll place a note in
13 our shift log that might alert the Monday day shift --

14 DAVID BROWN: Uh-huh.

15 JEFF STOUDT: -- SDM to be alert and possibly
16 to do some preparation as to which specialist you or
17 one of your colleagues could be forwarded for further
18 information.

19 DAVID BROWN: Right, right. It'll almost
20 certainly be one of my colleagues. I've been consistently
21 on this third shift. But yes, I'll make a note as well.
22 And thank you.

23 JEFF STOUDT: Okay.

24 DAVID BROWN: Thank you for your information.

25 JEFF STOUDT: Okay, just to make sure I have

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1 it right, your name is Dave Brown.

2 DAVID BROWN: Right.

3 JEFF STOUDT: Is that Brown with the common
4 spelling?

5 DAVID BROWN: Common color spelling, yep.

6 JEFF STOUDT: No final E as some Browne's
7 have or as in the German spelling.

8 DAVID BROWN: That's correct, yep.

9 JEFF STOUDT: And you're the Protective
10 Measures at the NRC.

11 DAVID BROWN: Right, yep. And did I give
12 you my number already?

13 JEFF STOUDT: No, it's --

14 DAVID BROWN: I think I left it with another
15 --

16 JEFF STOUDT: I believe it's, well, on
17 another note that my colleague provided.

18 DAVID BROWN: Yes.

19 JEFF STOUDT: -- and it's 301-816-5401.

20 DAVID BROWN: That's right. That's it,
21 okay.

22 JEFF STOUDT: Okay.

23 DAVID BROWN: Thank you, Jeff.

24 JEFF STOUDT: And anything else?

25 DAVID BROWN: No, that'll do it.

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1 JEFF STOUDT: And I wish you a nice Sunday.

2 DAVID BROWN: You too, thank you.

3 JEFF STOUDT: Thank you.

4 DAVID BROWN: Bye-bye.

5 JEFF STOUDT: Bye.

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(CONFERENCE CALL INITIATED)

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SAM HOUSTON: National Weather Service, how
can I help you?

DAVID BROWN: Hi, this is Dave Brown from
the NRC.

SAM HOUSTON: Hey, Dave, this is Sam Houston
again.

DAVID BROWN: Hey, Sam.

SAM HOUSTON: Hey, what's your number first
of all. I've got 816-5401.

DAVID BROWN: Yeah, that should have worked.
But I guess --

SAM HOUSTON: Yeah, it's saying it's not
in service there.

DAVID BROWN: Okay. Let me just double check.
You've got 301-816 --

SAM HOUSTON: Right.

DAVID BROWN: -- 5401. That's what you've
got? All right. So probably the best thing, if that's
not working, is to call the central number, which sounds
like what you did.

SAM HOUSTON: That's what I did.

DAVID BROWN: Yeah.

SAM HOUSTON: Yeah, I found that on the Web.

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1 So I figured it was okay. It said emergency.

2 DAVID BROWN: Absolutely, yeah.

3 SAM HOUSTON: Okay.

4 DAVID BROWN: And then they'll pass it
5 through if you tell them that you want to talk with the
6 Protective Measures Team meteorologist.

7 SAM HOUSTON: That was what again?

8 DAVID BROWN: Protective Measures Team.

9 SAM HOUSTON: Oh, Protective.

10 DAVID BROWN: Yeah.

11 SAM HOUSTON: I thought you said detective.

12 And I'm like, oh, these guys are all --

13 DAVID BROWN: Oh, sorry.

14 (Laughter)

15 DAVID BROWN: No.

16 SAM HOUSTON: Hey, well, actually what I
17 was going to call about, well, looking at the Web sites,
18 the JMA Web site, well, that Sendai is not putting out
19 any observations. Did you get some observations for
20 them from the 13th?

21 DAVID BROWN: No, I don't think we did.

22 SAM HOUSTON: Yeah, because I think that
23 was so hard hit by the tsunami I don't know if they had
24 any data.

25 But the Onahama definitely has 24 hours,

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1 looks like they have 24 hour observation. So I don't
2 think you should have a problem with that as far as day
3 or night or something like that.

4 DAVID BROWN: Okay.

5 SAM HOUSTON: Now the thing is, their map,
6 also there's a lot of automated stations in that area
7 too. Now, some of them are down at the coast where those
8 might not be of any value.

9 But there's some over the interior sections
10 there. I don't know if you saw that map on the GMA Web
11 site. There's all these, looks like, weather observing
12 stations there. Did you see all those?

13 DAVID BROWN: Let me just pull it up.

14 SAM HOUSTON: The way I got there, I went
15 to the JMA, just to their homepage there.

16 DAVID BROWN: Uh-huh, okay. And then --

17 SAM HOUSTON: And then under latest weather
18 there's kind of a rectangle on the left hand side, warnings
19 advisories --

20 DAVID BROWN: Yep.

21 SAM HOUSTON: -- next column over. I went
22 down to airport weather.

23 DAVID BROWN: Okay. I'm following along.
24 I'm with you.

25 SAM HOUSTON: And then I went down to Sendai,

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1 for example.

2 DAVID BROWN: Yep.

3 SAM HOUSTON: And I click on that and then
4 Sendai airport.

5 DAVID BROWN: Whoops. Now I'm just getting
6 a map when I go there. Or did you actually type in Sendai?

7 SAM HOUSTON: Oh, what I did, right, there's
8 a map, sorry. There's a map of Japan.

9 DAVID BROWN: Oh, with an aerial --

10 SAM HOUSTON: And a box with Tohoku. And
11 then Sendai is about the, what, fifth or sixth one down
12 there?

13 DAVID BROWN: Yep.

14 SAM HOUSTON: I clicked on that.

15 DAVID BROWN: Yep.

16 SAM HOUSTON: So you'll see Xs for all the
17 observations.

18 DAVID BROWN: Right.

19 SAM HOUSTON: And you can click on yesterday
20 also. So there was an indication that there's no data
21 there.

22 DAVID BROWN: Yep.

23 SAM HOUSTON: But then you could to the top
24 of that, up where it says table of hourly weather
25 observations, you hit select station.

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1 And what you get there is a map of stations,
2 not just Sendai, you can see, but there's Natori, and
3 inland there's Tzou (phonetic) --

4 DAVID BROWN: Uh-huh.

5 SAM HOUSTON: And you can see that there's
6 all these stations that are a little bit inland, Hepo
7 (phonetic) right there, for instance.

8 DAVID BROWN: Yep.

9 SAM HOUSTON: And what I was wondering was,
10 wherever you got the data that you do have, because I'm
11 trying to find past data. And I just do not see anything
12 past yesterday.

13 DAVID BROWN: Yeah, that's the trouble.
14 It seems to be, we had an opportunity, say, on Tuesday
15 --

16 SAM HOUSTON: Right.

17 DAVID BROWN: -- to get Monday's data.

18 SAM HOUSTON: Right.

19 DAVID BROWN: But, yeah.

20 SAM HOUSTON: Now, I don't know, well,
21 there's the World Meteorological Organization, which
22 I don't think is going to be of a great deal of benefit
23 for saving these short term data.

24 The National Climatic Data Center there in
25 Asheville might have some resources. Unfortunately it's

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1 the weekend. So I don't know how they --

2 DAVID BROWN: They're not really in there.

3 SAM HOUSTON: -- for off-hour type --

4 DAVID BROWN: Right. It's not really an
5 emergency response, yeah.

6 SAM HOUSTON: There may be though. Because
7 there could be things, let's say there had been something,
8 some sort of a radioactive release. I'm putting in
9 radioactive terms, something where somebody needed data.

10 There may be some contact down there. And
11 they may have somebody that, that data may go into a
12 repository or some sort of an archive of some sort.

13 I did a real quick cursory look to see for
14 international stations. They've got all the U.S.
15 stations in there. But I didn't see anything obvious
16 in their Web site for international type observation.

17 DAVID BROWN: Right.

18 SAM HOUSTON: But the key thing is, I think
19 you might have data from these. If you go below that
20 map it lists the type of stations you have.

21 So you have meteorological observatories,
22 weather stations or special automated weather stations.
23 And you see some of these others are just automated
24 weather stations. And wind direction and wind speed
25 are part of the data that comes in there.

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1 DAVID BROWN: Yeah.

2 SAM HOUSTON: Now, maybe through JMA. I
3 don't know if you all have contacts there.

4 DAVID BROWN: Yeah, we've been working
5 through our international liaison here to try to get
6 data from the past. And I don't think it's being triaged,
7 as you can imagine.

8 SAM HOUSTON: Yeah, yeah, I know.

9 DAVID BROWN: And it's not their highest
10 priority right now.

11 SAM HOUSTON: Right, it's tough. And even
12 if you were to call up here and ask me for data from
13 six or seven days ago, I might have some trouble getting
14 ahold of it.

15 Although if you call a local office you're
16 probably going to get something. We might have something
17 available.

18 But that tends to happen. It tends to be
19 that you can get stuff a month after and you can get
20 stuff a day or two after. But there's this period of
21 time when it's just very difficult to get weather
22 observations --

23 DAVID BROWN: Yeah.

24 SAM HOUSTON: -- from what I've seen. But
25 the thing is, with these being automated, you would think

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1 that they would be going into some sort of an archive.

2 And the best part is, it looks like to me
3 there's a pretty good network. Let's see, if you go
4 back to that map again, let's see, the main one with
5 the little boxes right there.

6 So there's Conto (phonetic) and so, let's
7 see, somehow I got to, oh no, I'll tell you what I did.

8 On the bottom of that same group that Sendai was in,
9 I clicked on that Fukushima.

10 DAVID BROWN: Fukushima, yeah.

11 SAM HOUSTON: Right. And then I looked at
12 the select station. And then that's where your Onahama
13 Airport came up.

14 And you can see that there's all these
15 stations in there. And you would think that out of those,
16 even if none of them were available right on the coast
17 right there, but you might be able to get some of the
18 ones inland right there.

19 DAVID BROWN: Yeah, and I think --

20 SAM HOUSTON: And it looks like they're
21 fairly close to the reactors.

22 DAVID BROWN: Yeah.

23 SAM HOUSTON: The one that I see is Soma,
24 which on that map you just described is probably very
25 close to the reactors in terms of the entire (indiscernible)

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1 with that, I think that color coding means precipitation
2 only.

3 DAVID BROWN: Yeah. But Soma is probably
4 our best bet.

5 SAM HOUSTON: If it survived the tsunami.
6 That's part of the problem. And it may have a power
7 issues.

8 DAVID BROWN: It's giving me data if I click
9 on it.

10 SAM HOUSTON: Oh, you do have, oh, you have
11 that.

12 DAVID BROWN: So yeah, just go ahead and
13 click right on that map. It'll give you --

14 SAM HOUSTON: Oh, good.

15 DAVID BROWN: -- data.

16 SAMHOUSTON: So that was a station you hadn't
17 looked at before?

18 DAVID BROWN: Well, it's a station we looked
19 at before, but it was down. And then when I got on shift
20 tonight, they turned over to me and said, hey, Dave,
21 Soma is back up.

22 SAM HOUSTON: Okay.

23 DAVID BROWN: But, of course, if you realize
24 this only goes as far back as yesterday.

25 SAM HOUSTON: Right.

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1 DAVID BROWN: And then we're still with,
2 okay, you got to go back to JMA to get the data.

3 SAM HOUSTON: But the thing is, let's say
4 that station was down right after the tsunami. Then
5 you've got just inland there.

6 Now, this could be up 10,000 feet or something.
7 Part of it is I don't have any relief here. But, yeah,
8 that's why I keep I-T-A-T-E. I don't know how you would
9 pronounce that, Itate, or something.

10 DAVID BROWN: I think Itate.

11 SAM HOUSTON: That one's inland. And that
12 might be the kind of thing, especially if there was a
13 southeast prevailing flow, that might give you an
14 indication, especially if something like Soma was down
15 right after the tsunami, maybe some of these inland
16 automated stations.

17 Now, is that one that's, let's see if that
18 one's reporting right now. Yeah. So that does have the
19 full suite, it has wind direction, wind speed, and it
20 was reporting yesterday. And it reports 24 hours of
21 data.

22 DAVID BROWN: It says --

23 SAM HOUSTON: So I don't know how you got
24 the data you've got.

25 DAVID BROWN: Yeah.

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1 SAM HOUSTON: But if there's a way to get
2 those types of stations right there --

3 DAVID BROWN: Yeah, I think that's probably
4 the best thing. I think what we'll end up doing is,
5 it appears as though the utility, TEPCO, maintained
6 operation of its onsite tower and possibly maintained
7 operation of the Daini tower, which is the nuclear facility
8 slightly to the south of Daiichi.

9 And we've had some success getting data almost
10 real time, from the Japanese Embassy, from those towers.
11 I've put in the request to get the data for the 13th
12 and 14th. Again, I think it's just not a priority for
13 them right now.

14 SAM HOUSTON: Right. I know, yeah. That's
15 one of those things where it would be very beneficial,
16 but it's going to fall through the -- when somebody can
17 get in there to do it type thing.

18 DAVID BROWN: Right. What probably folks
19 may not be appreciating is that we're actually using
20 this weather data to help understand exactly what happened
21 at the plant --

22 SAM HOUSTON: Right.

23 DAVID BROWN: -- trying to calculate the
24 source. And so it is actually helpful for real time
25 emergency response. But --

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1 SAM HOUSTON: Right, I know.

2 DAVID BROWN: -- it's hard to convince people
3 that's --

4 SAM HOUSTON: Yeah, no. And especially
5 because you're dealing with non-science type. They may
6 have their engineering perspective on things, but they're
7 not thinking about the other things, and especially from
8 a hindcast point of view.

9 Because that wind direction is pretty much
10 everything right there for you guys, I know. You tell
11 me what you need and I'm like, oh yeah, that's definitely
12 you want to back. And you need it back in time.

13 DAVID BROWN: Yep.

14 SAM HOUSTON: If you do any trajectory type
15 analysis, you've got to have, well, wind speed is
16 beneficial too --

17 DAVID BROWN: It is.

18 SAM HOUSTON: -- because (indiscernible)
19 transport. But the direction, especially in a coastal
20 type environment like that, because you guys, if you
21 can see things go offshore you're still going to deal
22 with, well, if the winds come back around from the east
23 again, where's it going to come back in --

24 DAVID BROWN: Right.

25 SAM HOUSTON: -- on the coast too. So you've

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1 got those sorts of issues, even with the westerly winds.

2 DAVID BROWN: Yeah, we're looking at -- and
3 the good thing is the Japanese themselves have got a
4 model that they appear to be running. We've had to have
5 the printouts from that translated for us.

6 But they included a wind field. So it gives
7 them some understanding of where things may go after
8 it goes off the coast.

9 And of course, at this point, for us NARAC
10 has, I think, been running the HYSPLIT model. And
11 ultimately we've given them our best estimate of how
12 much material was released and when. And NARAC is going
13 to go ahead and run a forecast of where the plume goes
14 from there.

15 SAM HOUSTON: Right.

16 DAVID BROWN: At this point, it's an
17 interesting time for us, because the event is hopefully,
18 by and large, over.

19 SAM HOUSTON: Right.

20 DAVID BROWN: And we'll transition from
21 weather data and forecasting the plume to, okay, well
22 now we see where it is on the ground.

23 SAM HOUSTON: Right.

24 DAVID BROWN: What do we do next --

25 SAM HOUSTON: Right.

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1 DAVID BROWN: -- in terms of food
2 interdiction and all that sort of thing.

3 SAM HOUSTON: Yeah, because that's part of
4 what, I think, looking back on the 13th, what you guys
5 want to do is what areas could have been contaminated
6 inland.

7 DAVID BROWN: Right.

8 SAM HOUSTON: -- during that period of time
9 when they may have been southeasterly.

10 DAVID BROWN: And we can do that to an extent
11 with our models. But pretty soon we're going to be

12 (b)(5)
13

14 SAM HOUSTON: Right.

15 DAVID BROWN: And then we'll really know
16 what the picture is. But I'll keep trying. I appreciate
17 your looking through all that for me.

18 SAM HOUSTON: Yeah, I'll take some more looks
19 here. I looked, for instance, there's a Pacific disaster
20 center over in Maui. I wanted to see if they had any
21 archived, I might snoop around. I know you're probably
22 not going to be there much longer.

23 DAVID BROWN: Well, it looks like I've got
24 three more hours.

25 SAM HOUSTON: I'll tell you what, if I see

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1 anything, I get a little busy here in the next hour or
2 so with the local weather again --

3 DAVID BROWN: Sure.

4 SAM HOUSTON: -- with the stuff that I'm
5 doing. But if in snooping around, you want me to just
6 call back on that number I called before? And they can
7 --

8 DAVID BROWN: Yeah, just ask for the
9 Protective Measures Team meteorologist.

10 SAM HOUSTON: Okay.

11 DAVID BROWN: And there's a code designation
12 for my desk in the Protective Measures Team that's PMT01.

13 SAM HOUSTON: That's P as in Papa --

14 DAVID BROWN: Well, it's Protective Measures
15 Team. So PMT --

16 SAM HOUSTON: Okay.

17 DAVID BROWN: -- 01.

18 SAM HOUSTON: Okay.

19 DAVID BROWN: That's my desk.

20 SAM HOUSTON: Okay.

21 DAVID BROWN: So you get, it's the guy at
22 the front. I assume this would ring right here. But
23 I guess it didn't. But if he seems confused about who's
24 Dave Brown, you can just say, well, then just give me
25 PMT01.

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1 SAM HOUSTON: Okay. Yeah, because it was
2 another person that was in the background that was
3 directing him.

4 DAVID BROWN: Okay.

5 SAM HOUSTON: Whoever I got. And so they
6 sounded like they were going to get the message over.
7 Well, obviously they did. So I knew they were competent.

8 DAVID BROWN: Yes.

9 (Laughter)

10 SAM HOUSTON: Sunday morning at that hour
11 over there I'm just glad you guys are up and about.

12 DAVID BROWN: Yeah, just doing our best.

13 SAM HOUSTON: Okay.

14 DAVID BROWN: Thanks, Sam.

15 SAM HOUSTON: If anything else comes up that
16 you've got questions about, just give me a ring. And
17 if I see anything I'll call you back.

18 DAVID BROWN: Great, I really appreciate
19 it.

20 SAM HOUSTON: Okay.

21 DAVID BROWN: Take care.

22 SAM HOUSTON: Well, you get some rest later
23 today.

24 DAVID BROWN: Yeah, I will. Okay, thank you.
25 Bye-bye.

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1 SAM HOUSTON: Okay. Thanks, bye.
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5 PMT NRC METEOROLOGIST AUDIO FILES

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7 MONDAY,

8 MARCH 21, 2011

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7 TUESDAY,
8 MARCH 22, 2011

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(CONFERENCE CALL INITIATED)

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LAKISHA (phonetic): Good morning, INFO
(phonetic) Emergency Response Center. This is Lakisha
(phonetic).

DAVID BROWN: Hi. My name's David Brown.
I'm at the NRC Headquarters Operation Center. I was
hoping to speak with Kevin Ryan.

LAKISHA: One moment.

(Pause)

KEVIN RYAN: Kevin Ryan.

DAVID BROWN: Kevin, this is Dave Brown.
I'm a health physicist at the NRC in the Headquarters
Operation Center.

KEVIN RYAN: Uh-huh.

DAVID BROWN: I'm following up on a phone
call between Fred Brown and you, maybe it was yesterday.

KEVIN RYAN: Okay.

DAVID BROWN: In which you reported out some
drywell radiation levels.

KEVIN RYAN: Yep.

DAVID BROWN: Do you know when those
measurements were taken? What we're trying to do is
use those and try to assess the average release in the
containment.

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1 KEVIN RYAN: Yeah. You can talk to my RP
2 guys. And the RP guys are putting together, hey, when
3 the dates on which we have the drywell temperatures.
4 So we're trying to look at both the torus and the drywell
5 for Units 1, 2 and 3 --

6 DAVID BROWN: Yeah.

7 KEVIN RYAN: -- and understand what's the
8 change been. So I'm looking for some graphic trend,
9 or at least some cognitive understanding of when the
10 increase occurred.

11 DAVID BROWN: Okay.

12 KEVIN RYAN: So I don't have a time specific
13 -- I have an updated, from yesterday I have an updated
14 matrix that shows that this was a new reading

15 DAVID BROWN: Okay.

16 KEVIN RYAN: -- that was provided today at
17 7 o'clock on 22 March. And I passed those temperatures
18 along, along with the RAD bubbles. But I'm trying to
19 trend that a little bit and understand a little better
20 the change in the past three or four days.

21 DAVID BROWN: And that's 7 o'clock our time?

22 KEVIN RYAN: Yep.

23 DAVID BROWN: Okay. All right, great. Do
24 you already have something, you had said you would provide
25 to somebody here along those lines or --

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1 KEVIN RYAN: I don't.

2 DAVID BROWN: Okay.

3 KEVIN RYAN: But I can, I can send that to
4 you.

5 DAVID BROWN: Yeah, that would be great.
6 Let's see. Just give me a second. Is that something
7 you can email or is it --

8 KEVIN RYAN: Yeah, I'm pretty sure I can
9 email it.

10 DAVID BROWN: Yeah. I'm on the Protective
11 Measures Team.

12 KEVIN RYAN: Yep.

13 DAVID BROWN: So it's pmt01, and then it's
14 space, hoc, for Headquarters Operation Center, @nrc.gov.

15 KEVINRYAN: Okay. So it's Papa, Mike, Tango,
16 01, Hotel, Oscar, Charlie. There's a space in between
17 the one and the Hotel --

18 DAVID BROWN: Exactly.

19 DR. ROY PARKER: It's not an underscore,
20 it's a space.

21 DAVID BROWN: It's a space.

22 KEVIN RYAN: Okay, and @nrc.gov.

23 DAVID BROWN: Yes, that's right.

24 KEVIN RYAN: Okay. All right. So we're
25 looking at that, and I'll send that to you.

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1 DAVID BROWN: Thanks, Kevin.

2 KEVIN RYAN: You bet.

3 DAVID BROWN: See you.

4 KEVIN RYAN: Bye.

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7 WEDNESDAY,

8 MARCH 23, 2011

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(CONFERENCE CALL INITIATED)

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PHYLLIS (phonetic): Lawrence Livermore National Laboratory. This is Phyllis (phonetic). How may I help you.

KEVIN QUINLAN: Hi. This is Kevin Quinlan calling from the NRC. I was hoping to speak with somebody doing atmospheric modeling there.

PHYLLIS: I'm sorry, somebody that's doing what?

KEVIN QUINLAN: Atmospheric modeling across the Pacific.

PHYLLIS: Okay. Is this an emergency call?

KEVIN QUINLAN: No, it's not.

PHYLLIS: Okay. Hold on one moment, okay?

KEVIN QUINLAN: Sure.

(Pause)

PHYLLIS: Hi, sorry about that. Just so you know, they're not running the 24 hour shift anymore. But I do have access to the 24 hour on-call emergency number. Or I can get you over to the DOE non-emergency. What would you like to do?

KEVIN QUINLAN: No, I don't need to find somebody who's on call. If you're not running 24 hours a day that's fine.

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1 PHYLLIS: Yeah, they suspected that this
2 was going to happen. They were going to get a couple
3 of calls.

4 KEVIN QUINLAN: Okay. No, that's fine.

5 PHYLLIS: So you want to wait until the
6 morning?

7 KEVIN QUINLAN: Yeah, that's fine.

8 PHYLLIS: If you have any problems, call
9 us back. We'll be more than happy to call.

10 KEVIN QUINLAN: Will do. Thank you very
11 much.

12 PHYLLIS: All right, bye-bye.

13 KEVIN QUINLAN: Bye.

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7 THURSDAY,
8 MARCH 24, 2011

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RECORDING: Welcome to the conference calling center. At any time during this message, please enter your pass code -- Your pass code has been confirmed.

If you need technical assistance during your call, press *0. After the tone, please state your name, followed by the pound sign.

DAVID BROWN: David Brown, NRC.

RECORDING: There are 12 parties in conference, including you.

ED: Okay. I haven't heard any more beeping for the last couple of minutes. So I thought I'd go ahead and check and see who's (inaudible). No, there's one more beep in (inaudible). Okay, who's here from food and drug?

TERRY GOMES (phonetic): Terry Gomes.

SCOTTY HARGRAVES (phonetic): Scotty Hargraves.

JIM CHERNIAK (phonetic): Jim Cherniak.

KAREN SMALLWOOD (phonetic): Karen Smallwood.

ED: Somebody got lost in the beep there.

JOHN JENTZ: John Jentz USDA.

ED: Oh, I'm trying to pick up FDA first. I was trying to do by agencies, so I have some -- We

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1 don't have 30 people trying to say hello at once.

2 JOHN JENTZ: Got you.

3 ED: Anybody else from Food and Drug?

4 DAVE ANDERSON: Dave Anderson.

5 ED: Thank you, Dave.

6 GEORGE ALLEN: George Allen.

7 ED: All right. Anybody else?

8 MALE PARTICIPANT: (Inaudible), Region V.

9 ED: Okay. USDA?

10 GORDON CLEVELAND (phonetic): Gordon
11 Cleveland.

12 RON GRAHAM (phonetic): Ron Graham.

13 JOHN PREVECK (phonetic): John Preveck.

14 JOHN JENTZ: John Jentz.

15 MALE PARTICIPANT: (Inaudible).

16 ED: Okay. CDC.

17 SAM KEITH (phonetic): Sam Keith.

18 CHARLES MILLER: Charles Miller. I don't
19 know if I count as CDC or not. But anyway, I'm here.

20 ED: That's where you hang your hat in your
21 day job, Charles.

22 CHARLES MILLER: (b)(5)

23 (b)(5)
24
25

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1 ED: Where you hung your hat three weeks
2 ago.

3 CHARLES MILLER: There you go.

4 ED: And before we had all this
5 entertainment.

6 CHARLES MILLER: Yes.

7 GERI ANDERSON (phonetic): Geri Anderson
8 from NIOSH.

9 ED: Okay, EPA region, Jean. And EPA
10 Headquarters here.

11 MIKE BOYD: Mike Boyd.

12 JOHN CARDARELLI (phonetic): John
13 Cardarelli.

14 MALE PARTICIPANT: Customs and Border
15 Protection. Department of Transportation.

16 MALE PARTICIPANT: See if we need those two.

17 ED: Coast Guard.

18 MALE PARTICIPANT: (Inaudible).

19 ED: Health Canada.

20 GARY KRAMER (phonetic): Gary Kramer here.

21 ED: Hey, Gary. Good to hear you. Anybody
22 else I missed that hasn't spoken up, that's arrived since
23 we --

24 DON FERRIS (phonetic): Don Ferris from
25 OSHA.

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1 ED: All right. Thanks, John.

2 DAVID BROWN: Dave Brown, NRC.

3 ED: Okay, NRC, good. Thanks, Dave.

4 TIM GRATTON (phonetic): Tim Gratton from
5 FEMA.

6 ED: All right.

7 MALE PARTICIPANT: Customs and Border
8 Protection is on the line.

9 ED: Oh, excellent. Okay. Anybody else?

10 I need to vamp a little bit here, because we kind of
11 need Jim Williams from Department of Transportation.

12 A phone call I had with Jim that I'd been
13 trying to get for a while, this morning has changed a
14 lot of thinking here. Because pretty much what Jim told
15 me, and I'd like him to speak for himself, is that Department
16 of Transportation regulations for the transportation
17 of radioactive material will cover virtually everything
18 we've been attempting to address here.

19 And that gives us a pretty strong, statutory,
20 regulatory basis for, you know, working on the questions.

21 (Inaudible) with the Advisory Team. Who just joined
22 the call?

23 JIM WILLIAMS: Jim Williams with DOT. I
24 got an email. I guess I got an invite.

25 ED: Yes. You can consider it an invite

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1 or a summons, whichever you wish, Jim.

2 JIM WILLIAMS: Oh, okay. All right. I'm
3 flexible.

4 ED: I was just sort of explaining to the
5 group that following our conversation this morning, it
6 was, you know, very enlightening and important
7 conversation.

8 And really what it will allow us to do is
9 move forward fairly quickly with a very strong, you know,
10 legal authority and regulatory base for doing anything
11 else we need to do.

12 And that is, you know, based on your
13 Department of Transportation regulations. There are,
14 you know, regulations that talk about what, how much
15 contamination is allowed to be in the transportation
16 system of the U.S.

17 How much radioactive material is allowed
18 to be in there without it being called radioactive material,
19 et cetera, et cetera, et cetera? So if you would, if
20 you would kind of give us a quick synopsis of what the
21 DOT regulations, kind of like the conversation we had
22 this morning, Jim.

23 JIM WILLIAMS: Okay. I mean, actually when
24 -- I'll spin a yarn here, as it were. Back in the early
25 '60s, you know, the U.N. chartered the IAEA. And the

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1 original intent was to harmonize transportation.

2 Because it was realized, you know, with
3 uranium transport, and whatnot, that there was a need
4 for consistent regulations around the world. Because
5 it was, even for then it was a really, a global economy
6 type thing.

7 So one of the first things the IAEA did,
8 I think it was '67 when they first came out. Or it might
9 have been an earlier version. Was the Safety Series
10 6, it was called, Regulations for the Safe Transport
11 of Radioactive Material. And this has been around now,
12 you know, going 50 years.

13 Basically all the countries sit in on it
14 and agree to it, and write what's now called -- The
15 document number is TSR1, Regulations for the Safe
16 Transport of Radioactive Material.

17 And it's a world wide agreement of how
18 radioactive material should be transported, and at what
19 point it needs to be regulated in transport. And at
20 what point, you know, it's considered such a low level
21 that it doesn't need to be regulated in transport.

22 And not just saying it's radioactive material.

23 But all the hazardous materials are really, are pretty
24 standardized throughout the world. If you've seen the
25 UNIDs on tanker trucks for gasoline, it's the same

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1 everywhere around the world.

2 It's a pretty remarkable effort. So it's
3 adopted world wide. And from the IAEA regulations, the
4 U.N. writes their regulations. The vessel IMDG code's
5 written for air, like KON Iota (phonetic).

6 And then pretty much all the countries use
7 that to write their domestic regulations. There's the
8 European ADR. So it's remarkably well harmonized. It
9 has to really be, by necessity.

10 And then in the U.S. we adopted in 49 CFR,
11 and then our C cross references as well. So it's a pretty
12 mature system, you know. I mean, I don't know if many
13 people, a lot of people don't realize it in this country.

14 There's about 30,000 radioactive material
15 shipments every day. And you have a infrastructure of
16 people that basically understand the system and use it.

17 And if it's well established. People have been trained
18 on it for decades. And the system's there.

19 And using something like this wouldn't be
20 unfamiliar to the RAM transport community, or to many
21 people that are involved with hazardous materials
22 transport. So that's my quick summary.

23 TIM GRATTON: Yes, this is Tim Gratton from
24 FEMA. I was talking to Ed Tupin about all of this, as
25 he was catching me up. But I know that there's stuff

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1 in 49 CFR.

2 But is there also a family of guides out
3 there that exist already for the folks on the firing
4 lines who are actually swinging meters over containers,
5 over airplanes, over imported cars, that sort of stuff?

6 JIM WILLIAMS: Yes, on our website there's
7 you know, introductory materials, what's called the RAM
8 RegReview. And it's about a 70 page primer on radioactive
9 material transport. And it's written at a pretty basic
10 level.

11 TIM GRATTON: I guess at a more basic question,
12 kind of outside my FEMA lane, and into just my life away
13 from here, one of my best friends is a Commander in the
14 Coast Guard, out in Long Beach.

15 And he was talking about, you know, how the
16 ships were coming in, you know, the first couple of ships
17 that had gone through the plum. And the State and everybody
18 was trying to be proactive with it.

19 They had the longshoreman's union trying
20 to say, well there's a safety issue here. We're not
21 going to unload. And I know that they were working with
22 Customs and Border Control and Coast Guard to try to
23 get the guidance that they would need.

24 I guess my question is, based on what you
25 just told me, and what's posted on your website, is that

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1 the guidance they needed to make those determinations?

2 JIM WILLIAMS: It's what's used every day,
3 and has been used for decades for --

4 TIM GRATTON: Okay.

5 JIM WILLIAMS: -- hazardous material
6 transport. I mean, it's accepted world wide.

7 TIM GRATTON: Okay.

8 JIM WILLIAMS: I mea, our regulations are
9 remarkably, unbelievably similar to 140 other countries.

10 MALE PARTICIPANT: What are they precisely?

11 JIM WILLIAMS: Everybody does the same thing.
12 Different languages, but, you know.

13 MALE PARTICIPANT: What are they precisely?

14 TIM GRATTON: Yes, what are the levels in
15 those regulations, precisely. This is (inaudible).

16 JIM WILLIAMS: Actually for surface
17 contamination, it gets a little complex for volumetric
18 material. There's two ways something's defined as
19 radioactive material.

20 One is surface contamination. Basically,
21 it's .4 Becquerels per square centimeter. But for anybody,
22 most people in the U.S. they're probably DPM per 100
23 square centimeter, for instance, 2400 for beta gamma
24 and low toxicity alpha emitters. And 240 DPM per 100
25 square centimeters for high toxicity alpha emitters.

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1 And that's defined in our regulations. It's
2 really just a two sentence definition. That's our
3 definition of contamination. And there's another
4 definition of radioactive materials for volumetric
5 materials, which entails concentration, how many
6 becquerels per gram.

7 And there is a low level for like a consignment
8 exemption value. Let's say you have, you know, above
9 the limit for your (inaudible) for concentration of value,
10 but you only have 2 grams of it. It's a sample. You
11 can be exempt that way from the regulations. And how
12 it's shipped every day on the world is --

13 MALE PARTICIPANT: I've got him on the line
14 already.

15 JIM WILLIAMS: It's not in transport.

16 ED: Okay. Thanks. So, thank you, Jim, for
17 that quick synopsis. And I think that goes a long way
18 in ways that --

19 JIM WILLIAMS: I did a little summary, just
20 to Sean. I can send it to, a little better written down
21 version. I'll send it to Ed and he could distribute
22 it.

23 ED: That would be great. If you do that,
24 Jim, we'll send that out to the whole of the list of
25 the folks that are on this call.

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1 SAM KEITH: Can I ask Jim a question?

2 ED: Sure.

3 SAM KEITH: Jim, this is Sam Keith. Do you
4 think that if you, if we impose 49 CFR, that would be,
5 I guess this would be shipping of empty packages. Would
6 we have specification packaging marking and labeling
7 laws?

8 JIM WILLIAMS: Oh, yes. I mean, if something
9 were to be. And I do want to clarify a few things. This
10 is for our regulations, specifically dealing with
11 transport and commerce.

12 It doesn't involve you, like, you know, we
13 don't regulate somebody who goes to the hardware store
14 and picks up a smoke detector, and goes home. It is
15 in commerce. But, I mean, the delivery of the smoke
16 detectors to the hardware store are regulated by us.
17 And it's just transportation.

18 It has nothing to do with, like human
19 consumption or food, or drugs, or anything like that.

20 It's just, all the modeling is built entirely for safety
21 of transport workers, emergency responders and the public.

22 ED: Thanks, Jim. I guess, so that leads
23 us to looking at this latest revised edition. I'm sorry
24 (inaudible). But, as I said, Jim and I spoke, you know,
25 sometime after 8:00 this morning.

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1 And we're scrambling a bit just to get this
2 worked up. And we kind of need to, you know, see whether
3 that answers the mail that we have. One question for
4 Customs.

5 It looks like, based on the arithmetic that
6 Darryl (phonetic) did, that for Customs it simply means
7 that it kind of bumped you down from a six to a four
8 on your pagers, based on what we know about your pagers.

9 And I guess we need to kind of hear whether that's a
10 problem, or whether you're good to go with that. Is
11 that okay?

12 JIM WILLIAMS: I mean, one thing about this
13 I realized, I mean, we still encounter things from
14 Chernobyl, you know. Once in a while there's a load
15 of Ikea wood products from upper Finland that, you know,
16 basically gets over here, or becomes regulated in
17 transport. Because we find it is above our definition
18 for radioactive material and contamination.

19 IRA REIS (phonetic): This is CBP, Ira Reis.
20 Okay. So once we have a PRD reading we usually, we
21 bring out the RIDs (phonetic) to get a more, an isotope
22 identification, as well as a more precise count
23 measurement.

24 So can I, based on what I'm hearing, if we're
25 looking for some sort of cut off point, are we looking

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1 at something about 250 micro R is of concern to the
2 Department of Transportation, at the surface?

3 ED: Does that sound right, Jim? I think
4 that's the way -- Well if you want to do the arithmetic
5 for iodide and cesium, that's the kind of the way it
6 looked like it fell out, based on the activity from --

7 IRA REIS: That's what I'm reading on this
8 new draft that came out.

9 ED: Yes. That's the way that we calculated
10 the other day. Like, other sets of eyes to look at it,
11 to make sure that we haven't done anything that's off
12 the reservation from a calculational standpoint.

13 JIM WILLIAMS: I mean, a lot of that's
14 dependant on your instrument and how it's calibrated.
15 I mean, we really just operate on, you know, activity,
16 not some kind of conversion of dose or dose rate.

17 IRA REIS: Okay.

18 ED: All right. But we were, what we
19 attempted to do was take the activity and convert it
20 into a dose rate from an area source, assuming, you know,
21 moderately uniform contamination over a, you know --

22 JIM WILLIAMS: I mean, we do -- Actually,
23 you know, the norm is the, for transportation, the average
24 over 300 square centimeters.

25 ED: Yes.

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1 IRA REIS: Well, thank you very much for
2 doing that conversion for us. It's quite helpful to
3 us now. Just find that we might go down a little bit
4 lower, just to cover all angles.

5 If you have a surface that's basically not
6 evenly contaminated. Say we get something that does
7 hit the threshold. What, and just realizing that these
8 containers do hit the road outside of the customs port.

9 Once you get above the threshold, what is expected?
10 What does the Department of Transportation expect?

11 JIM WILLIAMS: Well, right now by U.S. law
12 and U.S. regulation, you're regulators of radioactive
13 material and transport. And then you move into the,
14 it's a graded approach of what you need to do.

15 If you're just barely contaminated it's --
16 Well it's called Surface Contaminated Object 1. You
17 basically have to put it in an IP, what's called an
18 Industrial Package Type 1, which actually can be just
19 a cardboard box or a plastic bag.

20 IRA REIS: We're talking about a container
21 now.

22 JIM WILLIAMS: Oh, sea land like?

23 IRA REIS: Like a sea land container surface
24 contaminated with full out.

25 JIM WILLIAMS: Well the norm for something

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1 like that, where you couldn't overpack it or repackage
2 it, would probably be to decontaminate it, or quarantine
3 it until it does decay, to meet the limits.

4 IRA REIS: Okay. Now, when you do run into
5 that, who is responsible for the decontamination?

6 JIM WILLIAMS: It's really case by case.

7 IRA REIS: Well give us an example. Because
8 we're going to start running in to, we might run in to
9 this. And if we're at the port, and we have something
10 that hits above the surface, we're going to have to do
11 something with that container. It can't stay there.

12 JIM WILLIAMS: Well in most cases it goes
13 back to either the shipper or the carrier. But in this
14 case, you know, it wasn't, you know, it could have been
15 put on the package there by, you know, it could have
16 been shipped properly. It wasn't contaminated when it
17 was shipped. And then somewhere along transport it became
18 contaminated.

19 IRA REIS: Yes.

20 JIM WILLIAMS: I think by law, and this is
21 really a legal question, the carrier assumes
22 responsibility. But I'm not a lawyer, so I can't really
23 speak for that.

24 IRA REIS: Okay. Thank you very much.

25 RON GRAHAM: this is Ron Graham with FSIS.

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1 The detection instruments that you listed, the PRD and
2 RIID, are there any specific models that you're referring
3 to there? Or are all PRDs or RIIDs the same, and have
4 the same type of scale on their dials for reading?

5 ED: Customs, can you speak to that?

6 RON GRAHAM: The reason I'm asking is that
7 I just got an email from our FSIS folks. They are now
8 going to start supplying radiation pagers to our personnel
9 in Guam, American Samoa and Saipan.

10 And these are surface, you know, for
11 monitoring surfaces, containers, facilities, site
12 facilities and things. So I guess I'm just wondering,
13 are there, would these instructions here also apply to
14 any type of PRD, or --

15 JOHN: No. This is John (inaudible) from
16 EPA. I'll try to answer those questions very quickly.

17 And I'm not a representative of Customs. But I have
18 spoken to several Customs folks. So, Customs, if you're
19 on the phone, please speak up.

20 As I understand it to be right now, Customs
21 uses only one type of Personal Radiation Dosimeter, made
22 by Sensor Technologies. They do this to maintain
23 consistency in their training, and their protocols and
24 applications throughout the country.

25 What I do know is the X4 (inaudible) GR 135

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1 Radioisotope Identifier, that's the one that I know of.

2 But they may use others, which is probably perfectly
3 adequate as well.

4 But the PRDs is which we're basing some of
5 these things on from the operational standpoint. And
6 I can tell you that I've been told that that's, they
7 only use one type of model for this application.

8 ED: So, Ron, the issue would be, what are
9 your FDA or your USDA people being issued, what brands?

10 And then, you know, we need to talk to the manufacturers,
11 and see how those things would fall out for them.

12 RON GRAHAM: Yes. But when they sent this
13 email it said supplying radiation pager. I've since
14 responded back to them saying, you know, can you give
15 me the model types, and some things like, some more
16 information?

17 ED: Yes.

18 JIM WILLIAMS: We have that. It's actually
19 uploaded to the, our FTP secure website.

20 ED: Well the point is, whatever USDA is
21 using, we do not know that. So John, when you get that
22 information, if you'd pass it along we, you know, we'll
23 probably need to take a look at it with respect to whether
24 or not any, you know, any alternative worry needs to
25 be done for these PRDs.

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1 I know the Coast Guard, I think, said they
2 used the Identifinder (phonetic) for their taking their
3 spectra. But, Ira -- But both of them send their spectra
4 back to the same place.

5 So whether it kind of comes in the Coast
6 Guard door, or the Customs and Border Patrol door, it's
7 the same bucket of folks in the room taking a look at
8 the spectra and making the calls.

9 So I think we're in pretty good shape there.

10 So I guess, you know, so then the other -- So then,
11 Ron, if you've got USDA with some pagers, we may enter
12 some mail there. But until we know what they are --

13 RON GRAHAM: Yes.

14 ED: -- we don't know whether we have a new
15 problem, or just, you know, a new user for the same thing.

16 RON GRAHAM: Okay. I'm going to try to find
17 out from them. And if they can give me an idea of what
18 kind of models they're doing. Does the CBP, do you have
19 people out in Saipan or Samoa?

20 MALE PARTICIPANT: Did we lose Customs and
21 Border Protection?

22 RON GRAHAM: Yes.

23 MALE PARTICIPANT: Are you still there?

24 IRA REIS: We're right here.

25 MALE PARTICIPANT: Okay. So do you have

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1 people in Saipan and Samoa?

2 IRA REIS: We have people on site. But they
3 don't do customs inspections out in Samoa and Guam.
4 They have a totally different authority than inspections.

5 MALE PARTICIPANT: But we are supporting
6 Guam and Saipan Customs. They haven't had any vessel
7 arrivals yet. We're going to use our PRD and our RIID
8 to support them on any offloads in the maritime
9 environment.

10 RON GRAHAM: Do you know if they're going
11 to be supplied -- The email I got is kind of vague right
12 now. But do you know if they're going to be supplying
13 any other U.S. personnel, Government personnel there
14 with the same type of pagers? Or, you know, if you think
15 it's been like, coordinated?

16 MALE PARTICIPANT: CBP is not aware. We
17 are sending an additional expert operator from Honolulu
18 to support PNMI.

19 RON GRAHAM: Okay. All right. Thanks.

20 MALE PARTICIPANT: (Inaudible).

21 ED: So, has, I know you haven't had too
22 much time to look at them, but I know you have had a
23 little bit of time to look at the document. I know that
24 Geri Anderson has some comments to make.

25 Geri, if you want to kind of summarize your

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1 comments, and any recommended, or any changes you see
2 that we've made to the guidance as it is in today's draft?

3 GERI ANDERSON: Well the only thing that
4 I disagree with is, I think that they should try to quantify
5 the actively somehow. And the best way to do that would
6 be to perform a wipe test.

7 And I think that they could probably modify
8 their isotope identifier to count the wipes. I mean,
9 you do get counts under a peak. So you can look for
10 certain isotopes and get a count from that. Build some
11 kind of jag, or something, that you can just set the
12 thing in.

13 That would be something that you would want
14 to call your supplier about. But I don't think it would
15 involve buying any additional equipment. I think you
16 could do it with the equipment that you have.

17 ED: That would lead to a massive training
18 requirement. Because, so that there's some relatively
19 standardized method of taking a wipe. So that a wipe
20 that's taken on, you know, in New York is taken the same
21 way as in Los Angeles, and so forth. So I'm not --

22 GERI ANDERSON: Yes, I mean, you guys have
23 the DOT on here. So, I mean, I don't really need to
24 comment on it. I was just trying to interpret the DOT
25 regs.

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1 And the regs seem to me to say that you need
2 to quantify the amount of surface contamination. That
3 500 micro R per hour is for vehicles being returned to
4 service, after they've been carrying radioactive
5 materials.

6 JIM WILLIAMS: That's true. It's really
7 not totally applicable. Actually we're going through
8 a revision on that to kind of -- There's been kind of
9 a long standing misunderstanding of that, to be honest
10 with you.

11 Andthat's, it's shouldbereturnedtoservice
12 for radioactive material transport, not a free release
13 criteria to the general public. That's not the --

14 GERI ANDERSON: That's what I mean. I mean,
15 return to service after carrying radioactive materials.
16 Return to carrying other materials.

17 JIM WILLIAMS: Yes. But it's not meant to
18 be a free release criteria. It's a release for further
19 radioactivematerialtransport, not for say food products.

20 GERI ANDERSON: Right. So it's actually
21 less conservative. Because --

22 JIM WILLIAMS: Yes, yes.

23 GERI ANDERSON: -- you're assuming you're
24 going to keep carrying radioactive materials in that
25 same vehicle.

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1 JIM WILLIAMS: Right. So the .5 MR's really
2 not applicable for --

3 GERI ANDERSON: No, it's too high probably.

4 JIM WILLIAMS: Basically, yes.

5 GERI ANDERSON: Yes, yes. So that's kind
6 of my point. I was --

7 JIM WILLIAMS: It would be inappropriate
8 to decon to that, and then put foodstuffs in the next
9 load.

10 GERI ANDERSON: Right. To me the
11 appropriate decontamination criteria would be below the
12 surface contamination limit, the removable contamination
13 limit.

14 JIM WILLIAMS: Right. That's where we begin
15 to regulate in transport. Below that --

16 GERI ANDERSON: Yes.

17 JIM WILLIAMS: -- we kind of consider just
18 a minimus level, that's not really necessary. Now, there
19 is a higher value for packages out that do contain
20 radioactive material transport.

21 Most, because it's a tradeoff on how much
22 time and dose do you want to spend decontaminating for
23 radioactive material package. But for just a basic object,
24 the contamination limit applies.

25 GERI ANDERSON: Right.

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1 MALE PARTICIPANT: Quick question from CBP.

2 I think this is very productive. We're headed toward
3 a standard that we can utilize. And I think Ira started
4 to ask this question. And I think it's maybe for EPA.

5 So what do we do when we have surface
6 contamination above that threshold? What is the guidance?
7 Is it isotope dependent? Is it immediate decontamination?
8 We sort of need some information there. Because we
9 don't have, obviously, decontamination facilities or
10 space, especially on a cargo dock or a ramp in an airport.

11 JIM WILLIAMS: Our regulations are written
12 strictly for the transport. And, you know, it's not
13 to be like a fixed facility type thing. I think they're,
14 I mean, they may be the best that anybody has to work
15 with for other applications at this time. But, I mean,
16 in transport it would be required to not be transported
17 anymore. And either quarantined, remediated, something,
18 overpacked.

19 GERI ANDERSON: Could you just wrap the
20 containers, re-wrap them?

21 JIM WILLIAMS: You could. Actually some
22 people have done that for a minor thing. Of course if
23 you put it on a truck and going 50 miles an hour, I don't
24 know how well it's going to hold up.

25 GERI ANDERSON: Oh, well it's --

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1 JIM WILLIAMS: Depending if you're just
2 above the limit in your FC01, the requirements are to
3 go in an IP1 container, which is, many people use a nice
4 plastic bag. Yes.

5 MALE PARTICIPANT: Jim, when you're --

6 JIM WILLIAMS: Then if the contamination
7 gets higher, it needs to go to a better package.

8 GERI ANDERSON: Right.

9 MALE PARTICIPANT: Jim, if you're shipping,
10 like in an aircraft, is it, or a truck or anything, is
11 there -- It seems like there's a requirement for surface
12 contaminated objects to sort of blocked and braced.

13 JIM WILLIAMS: Right.

14 MALE PARTICIPANT: To prohibit movement.
15 And then --

16 JIM WILLIAMS: Anything --

17 MALE PARTICIPANT: -- special packed. And
18 you don't have to have labeling if you meet -- But you
19 have to take radiation levels from the surface.

20 JIM WILLIAMS: I mean, actually --

21 MALE PARTICIPANT: (Inaudible).

22 JIM WILLIAMS: -- once you do have something
23 that's radioactive, and you want to move into like the
24 transport regimen for transporting radioactive hazardous
25 materials, it's kind of --

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1 At that point you do need somebody pretty
2 qualified. It does come down to -- I could explain it
3 in maybe 40 hours, eight hours. It's nothing, like,
4 I mean, it's very -- It does take people a year or two
5 to understand it real well.

6 ED: Yes, Jim, I think what we're trying
7 to do is figure out, if we get something that they hit,
8 whether or not we have moved up into that regime. Or
9 whether we're still down in the, only just trace amounts
10 of contamination that is still allowable in commerce,
11 under the DOT regulations.

12 And how do we draw that line? And how do
13 we know when we've stepped over it? And then I think
14 there's a separate conversation probably needs to be
15 held, if and when a container, package, luggage, et cetera,
16 is found to be over the line.

17 Then, as you say, it cannot go further in
18 commerce. It needs to be held for quarantine. And the,
19 either the carrier, or the shipper, or the owner, or
20 somebody has to deal with that situation. And there's
21 lots of guidance out there for that.

22 But it gets into a level of complexity that
23 I don't think we want to go into here, just knowing that
24 it's, you know, the guidance on what you do when you
25 get above that.

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1 And where you fall in the DOT regulations,
2 is in fact there. There's answers. They're just not
3 simple. And what we're trying to do is kind of figuring
4 out where we go over that line, you know.

5 JIM WILLIAMS: Yes. I mean, there are ways
6 to exempt this too. There's what's called special
7 arrangement provisions of IAEA, to where, you know, if
8 you make a case you could exceed the IAEA regulations.
9 But what it basically requires is multi-lateral approval.
10 Every country has to agree to it that it passes through.

11 ED: All right. I think --

12 JIM WILLIAMS: And it's not easy to do, you
13 know.

14 ED: Yes, I was going to say, Jim, I think
15 that's the kind of thing that would be handled on a case
16 by case, you know, if we have something that we get that
17 trips over the, you know. And comes over top of the,
18 you know, kind of the floor of your regulatory in DOT.

19 JIM WILLIAMS: I'll be honest with you.
20 In many cases, a very quick, you know, basic wipe down
21 will cure the problem. You know, the old, the guy with
22 the -- I don't know if everybody's familiar with it,
23 the Maslin (phonetic) mops.

24 ED: Yes.

25 JIM WILLIAMS: They might become -- Let's

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1 say every HP tech in a power plant, that's his best friend.

2 ED: Yes. Buy stock in Maslin mops. If we
3 start seeing a lot here. So that's, so the real issue
4 we're trying to identify, I think the Custom and Border
5 Patrol needs their biggest help on is, you know, somewhere
6 between no, we don't see anything, and this much is,
7 you know, look at the spectrum, and yes, it's okay to
8 let go. And then at some other point it's like, it trips
9 another line and falls into your --

10 JIM WILLIAMS: Yes.

11 ED: -- you know, into you whole regulatory
12 scheme. It needs to be set aside, cannot be further
13 admitted into the U.S. for transportation. Either as,
14 you know, return to sender, cleaned up. One of the --

15 JIM WILLIAMS: I mean, you'll have some cases
16 -- Like I say, it will be case by case. Somebody will
17 have something very expensive. And it's like, I'll send
18 steam there to fix it.

19 ED: Exactly.

20 JIM WILLIAMS: Clean it for you.

21 ED: That's what (inaudible). That's what
22 I say. I think that those that trip over the, you know,
23 that trip into the DOT regulatory space will need to
24 be handled on a case by case basis, until we, particularly
25 until we see ourselves with, you know, huge numbers of

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1 them, you know. If we've got onesies and twosies, that's
2 not a big deal to deal with on a --

3 JIM WILLIAMS: And there vendors that can
4 be contacted that can, you know, bring you into the realm
5 of, you know, they can do everything that needs to be
6 done in accordance with the regulations.

7 SAM: Hi, Jim, is there a possibility of
8 using one of the exceptions? Like in 173.441(b)4?

9 JIM WILLIAMS: What's that?

10 SAM: About the exclusion of -- If the
11 shipment is --

12 JIM WILLIAMS: I mean, you can use anything
13 in our regs that's there, in our regs, the U.S.

14 SAM: If the carrier is operated under the
15 positions of the Federally regulated radiation protection
16 program, if the U.S. is taking over as far as controlling
17 air shipments or sea shipments, and governing them, could
18 that be seen as an authorized allowance?

19 JIM WILLIAMS: There's several exceptions.
20 I mean, there's one, a Federal employee and a Federal
21 vehicle is exempt from all this.

22 SAM: Well could you possibly come up with
23 a list of sort of general requirements and exceptions
24 that --

25 JIM WILLIAMS: That would be about 40 hours.

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1 SAM: -- the group might consider.

2 JIM WILLIAMS: It would be about 40 hours.

3 ED: Yes, I was going to say, Jim, I think
4 that's beyond the scope of this conversation. As I said,
5 we're trying to figure out what I call the base of the
6 regulatory space, that is --

7 JIM WILLIAMS: I mean, the most basic
8 shipping course is going to be a 40 hour course.

9 ED: Right. And we don't want to go there.

10 JIM WILLIAMS: And that's the basic one.

11 ED: Right. All we're trying to do is figure
12 out when we're in not radioactive material shipping space.

13 And that's, you know, even though we may detect something

14 --

15 Because these radiation detection
16 instruments that Customs and Border Patrol have are very,
17 very sensitive. And they can see down to essentially,
18 you know, background levels.

19 SAM: Well the Feds have plenty of people
20 with the 40 hour course. I'm just saying that --

21 ED: Sam --

22 SAM: -- there may be some exceptions that
23 you could allow a lot of discretion.

24 ED: Sam, let's not go there with exceptions.
25 Let's take care of the initial issue, which is to figure

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1 out whether we're, you know, how we go about getting
2 a determination that even though something may read,
3 may register readings on a pager, it either is or is
4 not below the threshold that would put it into the more
5 complex regulatory scheme.

6 JIM WILLIAMS: I would say, like if your
7 organization does have a very experienced shipper --
8 And some of these things, I mean, there's people with
9 10, 20, 30 years experience of just pure shipping.

10 They'll be familiar with this. They may
11 want, you may want them to become your best friend now.

12 But they'll know the regs inside out. There's a lot
13 of DoE people that way, DOD. But it is not something
14 that you're going to get anybody up to speed in a week.

15 ED: I guess one issue here is, you know,
16 given Geri's comment about the wipe and stuff, is DOT
17 comfortable with not having the wipe done to determine
18 (inaudible)?

19 Basically just using the current Customs
20 and Border Protection method of, you know, identify it
21 with the PRD. And then a spectrum that's adjudicated
22 by LSS, and --

23 JIM WILLIAMS: No. Our definition is
24 actually contamination. They can be -- You can do it
25 by direct measurement. It doesn't have to be a swipe.

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1 ED: Thank you, sir.

2 JIM WILLIAMS: You can do it by swipe, and
3 say that's everything. It's total contamination, the
4 fixed and the non fixed both, is where it throws into
5 the realm of contamination. So you can do it by direct
6 measurement.

7 GERI ANDERSON: As long as you're able to
8 quantify the activity.

9 JIM WILLIAMS: Right.

10 ED: And that's what the LSF does for you.

11 JIM WILLIAMS: And actually, you can't do
12 swipes alone. It is the total of the fixed and the non
13 fixed. So swipes along won't give you the full answer
14 if there is a fixed about it.

15 MALE PARTICIPANT: Yes, both a radiation
16 level and a contamination level together.

17 GERI ANDERSON: Yes.

18 JIM WILLIAMS: Total contamination, fixed
19 and non fixed.

20 GERI ANDERSON: If you have any fixed on
21 the wipes, on the (inaudible) that comes in, yes. But
22 you would still need to determine how much is fixed and
23 how much is not.

24 JIM WILLIAMS: Yes, ultimately to classify
25 it you would. You would have to determine how much is

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1 fixed and non fixed. But if you're regulated in transport
2 you just need total contamination, the 2400 DPM per 100
3 square centimeters.

4 GERI ANDERSON: All right.

5 JIM WILLIAMS: Then you get into, you know,
6 is it FC01, is it FC02, is it LSA, is it a limited quantity,
7 is it a Type A quantity, is it a Type B quantity?

8 GERI ANDERSON: But I think what they're
9 asking, is it appropriate, is it okay with the DOT if
10 they use the 240 micro R per hour above that natural
11 background rate to assume a certain amount of surface
12 contamination? I think that's what they're asking.

13 MALE PARTICIPANT: Can you do like a dose
14 to activity conversion? Sure. As long as it has sound,
15 you know, a sound basis.

16 GERI ANDERSON: As long as it has sound --
17 Yes. Does it need to go to the DOT prior? Would that
18 be a good idea to --

19 JIM WILLIAMS: No. (Inaudible).

20 GERI ANDERSON: -- have somebody look at
21 that?

22 JIM WILLIAMS: No.

23 GERI ANDERSON: Okay.

24 JIM WILLIAMS: We probably could. I mean,
25 to be honest with you, I'm the one HP at DOT.

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1 GERI ANDERSON: You're the only one?

2 JIM WILLIAMS: Yes.

3 GERI ANDERSON: Oh, my God.

4 ED: Jim, I don't know if you got the little
5 sheet we did that sort of went along with this draft
6 advisory? So if you would, if you would be willing to
7 take a look at that, and see whether, you know, you think
8 we did our arithmetic right, that would, you know, that
9 might --

10 JIM WILLIAMS: Which one's that? Is that
11 the --

12 ED: It's the little spreadsheet that came
13 along today with the --

14 JIM WILLIAMS: Oh, the dose activity
15 conversion?

16 ED: Yes.

17 JIM WILLIAMS: You know, it's very common.
18 But to be honest with you, I would say, this is probably
19 not my forte to do it. I don't know who did this, or
20 if it was, you know, peer checked and peer reviewed in
21 any way.

22 ED: (Inaudible). It's been about four of
23 us HPs here at EPA that have all hacked at it. And Geri's
24 hacked at it. And I don't know -- And I'd appreciate
25 it if the --

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1 JIM WILLIAMS: Yes, I can take a look at
2 it.

3 ED: It has --

4 JIM WILLIAMS: And actually, I know a few
5 people in industry. I might have them run some models
6 and double check.

7 ED: And see if you're okay with this.
8 Because this is what I would call a technical conversion
9 piece that would go along with the guidance and the advice.

10 And, you know, sort of be the bridge, if
11 you will, between DOT regulations and some operational
12 values that Customs and Border Patrol would see on their
13 PRDs, that is, I think John is saying it would look like
14 it would be about a four would be kind of the, a four
15 or a five, depending on what --

16 JIM WILLIAMS: Are you basing it entirely
17 on what, cesium 137, and iodide 131?

18 ED: Right. That's all we're seeing. The
19 reason why we're basing on that is, that's what we're
20 seeing. And so you'd be somewhere, four or five would
21 be, you know, this is probably going to be an issue for
22 folks.

23 JIM WILLIAMS: Is there, I mean, do you have
24 some kind of breakdown of the abundance of each? Is
25 it 50/50, or what is it? And then the iodine's going

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1 to start decaying real quick too.

2 ED: Right. It's about 18 to one. If you
3 look at the very bottom of that little spreadsheet, there's
4 some data we got from the Navy. It's a very limited
5 quantity of data. And obviously we'll get more. And
6 we may need to --

7 MALE PARTICIPANT: Yes, but --

8 ED: look at the --

9 MALE PARTICIPANT: -- it will drop. That
10 ratio will drop with the iodide decay.

11 JIM WILLIAMS: Yes. The iodine's going to
12 go away real quick, compared to the cesium.

13 ED: All right. So, you know --

14 JIM WILLIAMS: And you might -- I'll be
15 honest. To be conservative, you might just be better
16 taking off the, taking the most conservative value, as
17 a defense in depth kind of thing.

18 GERI ANDERSON: Well see, that's the problem
19 is that the -- That's the one I had the problem with,
20 is the iodide. Because at this point right now, if you
21 detect iodide you may not be reading a dose rate that
22 -- The dose rates that you read might not exceed the
23 contamination level.

24 They originally had it that they were using
25 500 micro R per hour. We've dropped it to 240. But even

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1 240, according to my rough calculations, I thought maybe
2 they should drop it to 120. But, I mean, maybe I'm just
3 picking nits. Maybe --

4 MALE PARTICIPANT: Can I jump in real quick
5 from the Operator/Customer perspective. I'm really sorry
6 to interrupt. But we have to move on to another call.

7 And I just wanted to note that, this document,
8 as drafted, we can live with, we can operationalize.
9 We very much appreciate the advisory group's work. But
10 we'd love it to be finalized. And if Coast Guard is
11 okay with this, I think we're fine from the customer
12 community. And we appreciate the good work.

13 ED: Okay. Yes, as I said, the 120 number
14 would be equivalent to about a four on your PRD. So
15 that would be a pretty usable number I would think.
16 Okay, thank you. So, Coast Guard, if we can get a thumbs
17 up, thumbs down on this from your perspective? Coast
18 Guard's not on? Okay. We'll have to --

19 MALE PARTICIPANT: Can I get a CBP point
20 of contact?

21 MALE PARTICIPANT: Sure. We'll go with
22 Patrick Simmons (phonetic), Patrick.Simmons@dhs.gov.

23 MALE PARTICIPANT: Okay, thank you.

24 ED: Okay. So thank you, Customs.

25 RICH TURTIL: I came on -- This is Rich

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1 Turttil with Nuclear Regulatory Commission. I don't think
2 any of my colleagues are on this call. I don't want
3 to interrupt --

4 DAVID BROWN: Rich.

5 RICH TURTIL: Yes.

6 DAVID BROWN: This is Dave Brown. I'm in
7 the HOC right now.

8 RICH TURTIL: Okay.

9 JIM WILLIAMS: Actually, you know, now that
10 I think of it, NRC with (phonetic) may have one of the
11 best sources to do a dose to activity conversion here.

12 RICH TURTIL: I guess I was just thinking,
13 and again, I may be out of place on this call. But I
14 wonder if CBP can address or talk to some of these issues
15 on the HHS call that we do, you know, tonight and, you
16 know, Tuesday and Thursday.

17 Because I know the states are longing for
18 some kind of responses on some of this. And again, I
19 may be speaking out of turn or line. But I know there's
20 a real need, or real request for information out there
21 on release of cargo, of ships, of -- And again, I apologize.

22 But I want to throw that out there, if CBP could be
23 a resource on these calls with the states. Thoughts?
24 Comments?

25 MALE PARTICIPANT: We'd be happy to support

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1 a call with the states, if you can give us a time and
2 call in. That's fine.

3 RICH TURTIL: Is Navy on the line, HHS?
4 Natarajan?

5 ED: No, Natarajan's not on. There's other
6 HHS on, but not Natarajan.

7 RICH TURTIL: Is that Patrick who just
8 mentioned that?

9 ED: That was Patrick who just mentioned
10 that.

11 RICH TURTIL: I'll send that to you, and
12 see if you can be available. But can I get your number
13 too? I'll have a quick talk with you too?

14 KEVIN MACALENEN (phonetic): (b)(6)
15 It's Kevin Macalenen speaking. Patrick's sitting next
16 to me.

17 RICH TURTIL: (b)(6) area code.

18 KEVIN MACALENEN: Correct.

19 RICH TURTIL: All right. I'll continue to
20 listen. Thank you.

21 RONGRAHAM: And, Patrick, this is Ron Graham
22 again. We just got back. And our folks and USDA are
23 also going to be using these sensor technology radiation
24 pagers.

25 MALE PARTICIPANT: That answers that

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1 question.

2 RON GRAHAM: Yes. So we want to maybe try
3 to, since you're going to have some folks, and expert,
4 we may want to contact you off line, and talk to you
5 something about that.

6 MALE PARTICIPANT: Great idea, Ron.

7 MALE PARTICIPANT: Okay, you can go ahead
8 and do that.

9 RON GRAHAM: Thanks. I'm fine with that.
10 Thank you.

11 ED: Okay, thanks, Customs. I guess we can,
12 if you want to drop off, we may have a little bit more
13 noodling on the technical nitty gritty, to make sure
14 everybody's happy with this document.

15 But, you know, if you're happy with the
16 general sense of it, then we'll go ahead and try to get
17 it finalized through the White House, probably this
18 afternoon. Gary Kramer, I know you were on from Canada.

19 MALE PARTICIPANT: (Inaudible).

20 ED: Was there anything that you wanted to
21 bring up for the good of the order here?

22 GARY KRAMER: Actually, I'm very curious
23 to know what you're doing about airplanes. We've been
24 getting these questions from our air carriers. How do
25 we know the airplanes are clean? What are you doing

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1 about screening airplanes?

2 ED: From my understanding Customs is --
3 I don't know how much they're looking at the planes themselves.
4 But they're certainly looking at the passengers and
5 the luggage coming off of them.

6 MALE PARTICIPANT: But it's a European
7 document.

8 ED: And there is a --

9 MALE PARTICIPANT: The AEA.

10 ED: Yes, the AEA, the Association of
11 European Airlines document that talks about it. It
12 doesn't really have numbers in it. But --

13 MALE PARTICIPANT: It has decon protocol.

14 ED: But it has some limited decon protocols
15 in it. Although they're not overly specific.

16 MALE PARTICIPANT: No. And it sounds
17 (inaudible) as well. We could share it with them.

18 GARY KRAMER: What is the weight of degree
19 that it's the same number?

20 ED: But, Jim, would you speak to the fact
21 that the numbers for the conveyances, and the procedure
22 for the conveyances would be the same as for the stuff
23 contained in them?

24 JIM WILLIAMS: Oh, it is. I mean, it applies
25 to whether it's the cargo, the conveyance. There's some

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1 whole confusion of an old number of the .5 MR Return
2 to Service value. I would think or hope most HPs would
3 say though, or hope for, you know, for a transport
4 conveyance .5 MR.

5 It might be a little excessive for fixed
6 contamination, or even loose contamination over the entire
7 surfaces. Especially for some kind of cargo container
8 that could have milk on the next load, or something.
9 So that's really not applicable.

10 What we regulate is the contamination value
11 for a surface contaminated object. And then when we
12 do have volumetric limits for volumetric materials, or
13 concentration limits for volumetric materials like dirt
14 of any kind of volumetric material.

15 GARY KRAMER: Okay. So heard all that.

16 JIM WILLIAMS: It's just a part of
17 conveyances. I mean, it's any object with contamination.
18 We don't discriminate on anything.

19 GARY KRAMER: Yes. So I heard all that.
20 But I still didn't hear if anybody's actually waving
21 a meter over the outside of the plane.

22 JOHN CUTTER: This is John Cutter from EPA.
23 Right now I have not seen any of my colleagues here
24 at the EPA, EOC giving any information that we have received,
25 that they are actually doing that. However, that question

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1 has come up. And we have some documents that we could
2 forward to you, you know, after this meeting.

3 MIKE BOYD: And, Dr. Kramer, this is Mike
4 Boyd. I don't know if you've seen them yet, but I did
5 forward, through Brad Austin (phonetic), some of that
6 material.

7 GARY KRAMER: I got the spreadsheet, and
8 your Advisory Team report. I've got those two things.

9 JOHN CUTTER: He doesn't have the AEA --

10 MIKE BOYD: Okay. There's this AEA, which
11 is a European airline decon manual.

12 GARY KRAMER: I think I've seen that.
13 Because one of my colleagues got it. So I do have something
14 from AEA as well.

15 MIKE BOYD: Right.

16 GARY KRAMER: It was just the mechanics of
17 whether anybody was doing it. Because we've been getting
18 questions about the ground staff being exposed to
19 potentially contaminated aircraft.

20 MIKE BOYD: Right. I don't believe they're
21 on this call now. But the calls we've been having with
22 a technical group out of the White House has had two
23 representatives from our Federal Aviation Administration
24 who are asking much the same questions. So I think we'll
25 be addressing their questions and your question

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1 simultaneously.

2 GARY KRAMER: Okay.

3 JIM WILLIAMS: I know, actually one of the
4 first calls I got was when, you know, when the Ronald
5 Regan, I guess 100 miles off the coast, detected, a little
6 plume came over it. And they moved south.

7 And if you go to the web page for the 7th
8 Fleet, you'll see some information on there. FedEx
9 started calling about, where should I not be flying?
10 You know, my pilots are concerned. My company's concerned
11 about their aircraft.

12 They actually did some very early modeling,
13 I think. It was just basically from some data from that
14 web page. And, you know, considering that it was noble
15 gas, I think they made their own decision before any
16 no fly zone was established, of where their planes should
17 go. So it is a concern.

18 ED: And the Regan was on CNN with literally
19 deck swabbing. They had, you know, soap and water all
20 over the deck, and a line of sailors swabbing and pushing
21 the filthy water down the deck. This morning it was
22 on the news.

23 JIM WILLIAMS: I have, I really haven't seen.
24 But I have surfed, I've seen some media reports where
25 there's been some contaminated air filters in the cabins,

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1 and maybe some baggage.

2 I can, you know, from my power plant days,
3 I mean, you can go to like window rad on site, and find
4 400 counts of air con on every, you know, tray or air
5 conditioner.

6 MIKE WOOD: This is Mike Wood again. Maybe
7 I don't understand the procedure at all. And somebody
8 can tell me if I'm completely off base. But wouldn't
9 the deicing stations be good staging points for cleaning
10 a plane?

11 GERI ANDERSON: Wow. That's a great idea.

12 JIM WILLIAMS: Well, yes.

13 ED: Yes. Actually, that's a great idea.

14 GERI ANDERSON: I like that. Brilliant.

15 ED: Yes.

16 JIM WILLIAMS: Because it's on the ground
17 --

18 ED: They have sumps that collect the deicing
19 fluids. It's not necessarily the stuff you want to like
20 randomly want on your grass. So, yes. That would be
21 a great idea.

22 MALE PARTICIPANT: (Inaudible), you're
23 right.

24 ED: If you got to clean off a plane, I don't
25 whether deicing material is the appropriate material.

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1 MALE PARTICIPANT: No, no, I wouldn't --

2 ED: -- to use to clean a plane. But the
3 deicing pads.

4 MALE PARTICIPANT: The pads, right.
5 Because they have sumps, presumably.

6 ED: And yes, they're designed to collect
7 the, whatever is used to wash the plane, and (inaudible).

8 That's a great idea. Yes, we have had some issues with
9 filters on, I guess diesel engine ships that pulled into
10 port. And did find enough iodide to identify it as an
11 isotopic contaminant.

12 And maybe, you're right, some aircraft cabin
13 air filters that, again with some iodide identified.
14 So it's, the issue's there. Okay. So I guess for the
15 good of the order, you know, last call for comments on
16 the document. We're going to finalize it and get it
17 out of here. And get it over to the White House. And
18 tell (b)(6) to make her, do her magic and make it,
19 you know --

20 MALE PARTICIPANT: (Inaudible), it's an
21 advisory team. Folks, you guys have done some fantastic
22 feedback. We've tried to have been receptive. We think
23 we've had all the stakeholders somewhat involved in the
24 process, as much as we reasonably can.

25 And we are always open to revising this as

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1 more information becomes available. So no matter what
2 comes out of this team, always consider it a living document.

3 And we really do appreciate all of the comments. And
4 it's been a better document as a result of it. So that's
5 all I wanted to add.

6 ED: Thanks.

7 RON GRAHAM: Yes, this is Ron. Are you all
8 going to produce a final one that has all the comments
9 you got today?

10 ED: That's the plan.

11 RON GRAHAM: Okay. And how long do you think
12 it will take to get through the White House for the final
13 stance?

14 ED: That's unknown. I'd be surprised if
15 it was done by tomorrow. But it might. I mean, before
16 tomorrow.

17 MALE PARTICIPANT: Well I'll work on it now.

18 ED: I mean, we'll get it to the White House.
19 How long it takes to get it out of the White House may

20 (b)(5),(b)(6)
21

22 RON GRAHAM: Okay. Thanks.

23 JOHN: Geri Anderson, this is John. Are
24 you okay if we go down to a (inaudible) in assuming that
25 Customs won't have an operational issue with making that

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1 recommendation down to four, instead of a six on their
2 PRDs? (Inaudible). I'll contact Geri.

3 GERI ANDERSON: Oh, wait, I'm here. Were
4 you talking to me? I'm sorry. Yes. Sorry.

5 JOHN: If we were to (inaudible) constant
6 for their operational aspects of this to be concerned
7 about things that exceed four, or four or above?

8 GERI ANDERSON: I think four is good.

9 JOHN: Okay.

10 GERI ANDERSON: And the only other thing
11 that I would suggest, and I know this might be, you know,
12 asking to much. But just, I think it would be a good
13 idea for them to periodically, to take a sample, just
14 to ensure that your methodology is sound.

15 You know, just periodically, once a day,
16 or you know, just every now and then. Not on every single
17 container. But once a day, once a week. Somehow it's
18 just to prove that their methodology is sound.

19 JOHN: I think we can provide it as a
20 recommendation. And let Customs decide how they want
21 to implement that.

22 GERI ANDERSON: Okay.

23 JOHN: That would be a challenge for them
24 from training. But if they can do it, it's good to have
25 that information.

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1 GERI ANDERSON: Well they said they have
2 a scientific group that they can send a sample off to.

3 So they could have someone come in maybe once a week,
4 and just take a swipe and count it the way they do it
5 in their lab, or whatever.

6 ED: I think there are a few ports where
7 Customs actually hired health physicists to be at the
8 port, and serve as a kind of on site deal.

9 GERI ANDERSON: Yes.

10 ED: And at some of those locations perhaps
11 this wouldn't be too big of a deal. But you got to --

12 GERI ANDERSON: Yes.

13 ED: -- be able to take a swipe.

14 JOHN: Okay.

15 GERI ANDERSON: Yes.

16 JOHN: All at (inaudible).

17 ED: But not at all 400 ports of entry, or
18 whatever it is --

19 GERI ANDERSON: Right. I can understand
20 that.

21 ED: -- with just Customs agents. But I
22 think that you are, like the big ports, you know, Baltimore,
23 New York, (inaudible) and San Francisco, Long Beach,
24 LA --

25 JOHN: So we're trying to finalize this and

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1 move it up. It could always change in the future if
2 more information comes available. But we need to get
3 a move on it.

4 GERI ANDERSON: Yes. Do it.

5 EUGENE: Hey, John?

6 JOHN: Yes.

7 EUGENE: Yes. The contamination values
8 that were derived, you know, roughly 2E to the 6th for
9 both cesium and iodide, (inaudible) DPM per 100 square
10 meters. Do you expect those to actually, to also be
11 used in cases where folks have GM, say (inaudible) type
12 instruments?

13 JOHN: You want to answer that (inaudible)?

14 ED: Those are DPM numbers, Eugene.

15 EUGENE: I know. DPM per 100 square
16 centimeters.

17 ED: Right. So there would need to be
18 appropriate conversions made for the efficiencies of
19 those GMs to go from CPMs to DPMs.

20 EUGENE: I understand that.

21 ED: And that's, you know, and so --

22 EUGENE: But at surface contamination values,
23 could those be used just the same?

24 ED: Well the DPM surface contamination
25 values are the DOT surface contamination values. And

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1 they won't change. It's a matter of --

2 EUGENE: Okay. So you're going to go with
3 the DPM out of 173.433, or whatever it is, versus the
4 ones that were calculated?

5 ED: Yes, we're going to go with the, yes,
6 with the DOT regulation numbers. Because that's what,
7 that's the governing reg.

8 EUGENE: Okay. I just wanted to clarify
9 that.

10 ED: And then, you know, as you know, any
11 instrument you've got to tweekle (phonetic) it to --

12 EUGENE: No, I understand that.

13 ED: All right.

14 EUGENE: Thanks.

15 ED: Any other comments?

16 MIKE NOSKA (phonetic): Ed, this is Mike
17 Noska. This is not directly relevant to the document
18 that we're working on now. But it's an issue that I
19 want to raise for Advisory Team consideration. I don't
20 expect an answer right now.

21 But we're starting to think about, you know,
22 similar criteria for FDA regulated products. And one
23 of the issues that comes up is that if something were
24 to exceed or trigger a level, an action level let's call
25 it, and we refused importation, then basically the two

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1 options would be to either ship it back to its country
2 of origin or destroy it. And both of those actions,
3 obviously raise some issues. And so --

4 ED: Isn't there the option to recondition,
5 Mike?

6 MIKE NOSKA: Well we're talking about
7 pharmaceuticals and not devices.

8 ED: Oh, okay. I didn't know what products
9 you were talking about. All right.

10 MIKE NOSKA: Yes.

11 ED: It's hard to recondition pills.

12 MIKE NOSKA: Right. Well, or, you know,
13 if you're talking about containers, bottles, or whatever
14 it is, boxes, you know. But anyway, so --

15 ED: Well actually, Mike, that's a separate
16 issue. If the product itself is not contaminated, but,
17 you know, the cardboard boxes, you may be looking at
18 a repackaging. And that would, I would think would be
19 the, you know, whoever owns it call. You know what I
20 mean?

21 It's whether they want to, you know, if you
22 got pills that, you know, come in a bottle that's in
23 a cardboard box, you know, whoever is the owner of those
24 drugs would have the option, I would think, of, you know,
25 destroying it, return to sender or, you know, rebox it.

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1 MIKE NOSKA: Well, yes, there are certainly
2 several options. And, you know, I think we really need
3 to dig into FDA regulatory space to get at that.

4 But in a general sense, I'm getting at a
5 couple of issues. If it was return to sender, then I
6 think we might have a DOT issue. Or I'm asking that
7 question, I guess.

8 JIM WILLIAMS: I mean, if you knew something
9 was contaminated and you shipped it without complying
10 with the regulations --

11 MIKE NOSKA: Right.

12 JIM WILLIAMS: -- you'd be in violation of
13 U.S. regulations.

14 MIKE NOSKA: Right.

15 ED: Yes. As I say, shipping it back, it
16 might have to go back in a plastic bag or something.

17 MIKE NOSKA: But does that cover shipping
18 it back out of the country, if it's theoretically not
19 making an entry into the country?

20 JIM WILLIAMS: Well, even all the
21 international transport, if by vessels, are done under
22 the IMDCHI (phonetic) code. And theirs say the exact
23 same thing theirs say. But like I say, the regulations
24 are uniform around the world. Whatever mode, whatever
25 country, we all, it's all been agreed upon.

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1 MIKE NOSKA: Right.

2 JIM WILLIAMS: And then the vessel, by law,
3 or by regulation, is not supposed to accept it.

4 MIKE NOSKA: Right. So we'll be looking
5 for some guidance on that. And then, you know, the other
6 question is, if there's a decision to destroy, you know,
7 who has the responsibility?

8 Who has the authority, you know, in terms
9 of disposal of now radioactive waste, basically? And
10 that's a bigger question that has come up in other context
11 as well.

12 What about, you know, shipments of, for
13 instance, contaminated food, or any item of your choosing
14 that's found to be contaminated and rejected, and is
15 now waste. What's going to be the disposition of that?

16 And so again, you know, I'm not expecting
17 answers right now. Because they're very complicated
18 questions. But we do want to post that to the Advisory
19 Team.

20 ED: Yes, thanks, Mike. Is there any way
21 that you can capture those in writing and shoot us an
22 email --

23 MIKE NOSKA: Sure, sure.

24 ED: -- with those questions? That would
25 be really helpful, so we can keep track of it.

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1 MIKE NOSKA: And it's, obviously it crosses
2 multiple jurisdictions. So we'll no doubt want some
3 guidance from our DOT colleague, as well as probably
4 CBP again, and others.

5 ED: Yes. We may need the state to weigh
6 in on that one too. I mean, not the states, the Department
7 of State.

8 MIKE NOSKA: Right. Oh, oh. Yes, whatever
9 it takes. Thank you.

10 MALE PARTICIPANT: Yes. And the question
11 has come up in Michigan too, about disposal of, you know,
12 liquid waste, if there's spray down of contaminated
13 articles. Is it appropriate for sewage disposal, or
14 if not, then who's going to regulate that? Because it's
15 not licensed material.

16 ED: Yes. Kind of stuff is off and outside
17 the regulatory scene. I don't know if the NRC would
18 have any opinions about what would happen there or not.

19 Because (inaudible) is not their regulatory space,
20 because it, you know, comes from Japan. But if it was
21 from a U.S. reactor it would be their regulatory space.

22 MALE PARTICIPANT: That's right.

23 ED: NRC, any thinking on that? Or do you
24 want to take that back and turn it a little while before
25 we --

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1 DAVID BROWN: Yes, this is Dave Brown, NRC.
2 I'll have to take that back. But I think you're right.
3 It's just not licensed material, and it may not fall
4 under our regulatory purview.

5 ED: Yes. And maybe that's a good one to
6 throw at this little legal group that they have up there
7 that, like, geez, whose regulatory purview is this stuff
8 in? Looks like and smells like, and tastes like NRC
9 regulated stuff. But because it came, you know, via
10 the air, is it?

11 JIM WILLIAMS: One thing about the transport,
12 it's clear if it's transported it's regulated by the
13 DOT. It doesn't matter who's --

14 ED: Right.

15 JIM WILLIAMS: -- license it was.

16 ED: No, no. I'm just saying --

17 JIM WILLIAMS: Once you get out of the
18 transport realm, we have no authority.

19 ED: Right, right. That's what I'm saying
20 is, there's going to be stuff that's brought over here
21 by the air, on the winds, and will land --

22 MIKE: Ultimately -- This is Mike. I think
23 ultimately it would be the authority of the state where
24 it's being disposed in.

25 ED: Probably.

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1 MALE PARTICIPANT: And with some EPA
2 involvement as well.

3 ED: Probably. But, you know, that --

4 JIM WILLIAMS: Kind of what we thought.

5 MIKE: Yes.

6 ED: But that's probably a best guess. But
7 we may need a lawyer to weigh in on that final answer.

8 MIKE: Just to give it a blessing.

9 ED: Okay.

10 LYNN: Hello, this is Lynn. I'm just curious
11 what's happening with the request from Japan that came
12 in through USDA yesterday. Just curious about that.
13 And also, Ed, did you -- I came in late. I'm sorry.
14 But did you mention anything about access to CM Web?

15 ED: Well there's an email that went out.
16 And I had not gotten to that issue yet. I'm glad you
17 reminded me. But let's take care of the USDA issue.
18 Remind me what that was again, and whether we still have
19 an issue. Or whether that was sort of taken care of.

20 JOHN JENTZ: Ed, this is John Jentz in USDA.
21 We got a request from the U.S. Government, the Food
22 Safety Commission, to the Agriculture Council Minister
23 at the U.S. Embassy, who is a USDA employee, to give
24 them a point of contact. To give the Government of Japan
25 a point of contact for food safety issues.

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1 They're doing a risk assessment on their,
2 you know, they've banned some food, and so forth. And
3 they're starting to look at radiation levels, and that
4 sort of thing. Make a risk assessment and so on.

5 I made sure that we touched base with State
6 Department. It went to the White House, from the State
7 Department. And the White House gave it to FDA. And
8 I was (inaudible) when I was working with Mike on, you
9 know, during that period anyway, just to let him know
10 it was coming. Most likely going to come their way anyway,
11 which I think it did. So, Mike, you take it from there.

12 MIKE: Yes, thanks, John. And I apologize,
13 I didn't get to close the loop with you. But that's
14 exactly how it went. And it got pushed back to FDA.

15 And we've since identified our, I'm not sure
16 if it's Deputy Commissioner or Associate Commissioner
17 for International Programs, to be the point of contact
18 with the Government of Japan.

19 But then, of course, it will be redistributed
20 down to the technical level as necessary. But we, you
21 know, of course will collaborate as needed with USDA,
22 or whoever else we need to. But, yes, we were given
23 that task.

24 ED: Okay. So it sounds like that's a closed
25 item of, close action item then, that the appropriate

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1 point of contact within the Food and Drug Administration
2 has been identified to the Government of Japan for this
3 purpose. And the rest of the Advisory Team is standing
4 by, providing technical assistance as
5 required/requested.

6 MIKE: Yes, I'd say so.

7 ED: All right, thank you. So we'll knock
8 that one out. And then the other item of business that
9 Lynn mentioned was the issue of CM web access. Now,
10 DoE has been instructed at the highest levels of Government
11 to limit access to NARAC web products.

12 I know a few of you have gotten access to
13 CM web products. But they have been instructed to limit
14 access. But we have been, as the Advisory Team, told
15 that we can have a total of ten. And I sent the note
16 out to people --

17 (Inaudible background comments)

18 ED: Hello?

19 MALE PARTICIPANT: We're still here, Ed.

20 MALE PARTICIPANT: We're here.

21 MALE PARTICIPANT: We're here.

22 ED: Sorry about that. I think we got a
23 little bit of a cross contamination through our television,
24 for whatever reason. Everybody still hear me?

25 MALE PARTICIPANT: Yes.

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1 MALE PARTICIPANT: Yes.

2 ED: Okay. So, I know I've heard from CDC
3 on who they want. FDA, I'm not sure I've heard from
4 you guys as to who you would like to have as our people.
5 I think USDA sent me a couple of names.

6 MIKE: Ed, it's Mike. We sent names through
7 Jeff.

8 ED: Okay. You sent names through Jeff?
9 Jeff, did you send that along to me?

10 JEFF: Yes, I sent that to you earlier today.

11 ED: Okay. I'll have to go -- I only got
12 about 150 emails so far, since midnight last night.

13 MALE PARTICIPANT: Oh, you're way behind
14 the curve.

15 ED: Yes. And I was in conference calls
16 with Customs and a whole bunch of other people most of
17 the day. All right. So we'll forward those names along.
18 And that's about --

19 Well, there is one other item brewing. And
20 I might, and this one I would appreciate if you would
21 kind of not let go about too much. But there's a potential
22 request for on site advisory teams to the U.S. Embassy
23 in Japan. So we're waiting to see if that request actually
24 comes through, or whether this is somebody saying, gee,
25 wouldn't it be nice if. So --

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1 RONNIE (phonetic): Sorry, this is Ronnie.
2 You woke me up there. What was this now?

3 ED: There may be a request for an on site
4 advisory team to work and advise the staff in the Embassy,
5 the U.S. Embassy in Tokyo. We'll see.

6 CHARLES MILLER: Ed, this is Charles.

7 ED: Just a heads up, wash your underwear.

8 CHARLES MILLER: Ed.

9 ED: Yes.

10 CHARLES MILLER: This is Charles. I just,
11 I think, yes. I would just heed -- Yes, everybody do
12 what Ed just said. I think that there's a very good
13 chance that that's going to become an official request.

14 And we're going to need to think about who
15 and how many, and what their expertise might be. We'll
16 be working with the Ambassador. There will be concerns
17 for U.S. citizens, and how regulations and their guidance
18 interface with ours, and all sorts of stuff. So just
19 keep that in mind.

20 And it, this could last a while. I mean,
21 this situation is not going away in a hurry, from everything
22 I can read. We're looking at, it may be weeks before
23 they get this thing under control. Just a happy thought
24 for everybody. I didn't mean to kill everybody off.

25 MALE PARTICIPANT: No, no, Miller San.

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1 Actually, you'll be Miller Sana (phonetic).

2 ED: Have passport, will travel.

3 CHARLES MILLER: Just something to keep in
4 mind.

5 ED: Well, that's all I've got for today.

6 Is there anybody else who has anything for the good
7 of the order.

8 LYNN: Yes, this is Lynn. Let me just make
9 one more comment about access to CM Web. The two
10 individuals --

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NUCLEAR REGULATORY COMMISSION

Title: Japan's Fukushima Daiichi
PMT NRC Meteorologist Audio Files

Docket Number: N/A

Location: N/A

Date: March 26, 2011

Work Order No.: NRC-4222

Pages 1-3

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4 JAPAN'S FUKUSHIMA DAIICHI
5 PMT NRC METEOROLOGIST AUDIO FILES

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7 SATURDAY,

8 MARCH 26, 2011

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1 (CONFERENCE CALL INITIATED)

2 0%S\$D%M602965094

3 (Answering machine)

4 LOU: Hey, George, this is Lou. It's about
5 9:15 here in the Ops Center. They called me in early,
6 because it looks like there may be a bug in RASCAL.
7 And we have to explain to the White House what's going
8 on.

9 So if you get this message, it would be worth
10 responding to. We can tell them that it looks like there's
11 a bug. But it would be much better to tell them we fixed
12 it before we go any further here. I'll try your
13 other number and see if I can get to you. And we'll
14 try email also. All right. We'll talk to you. Bye.

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(CONFERENCE CALL INITIATED)

0%S\$FLIL02965094

(Answering machine)

LOU: Hey, George, it's Lou, 9:15 Saturday night, trying to get ahold of you. There's, I think, a problem in RASCAL.

I'll send you an email and characterize it.

And if you get, we'll see what we can do. The White House is asking. Bye-bye.

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7 SUNDAY,
8 MARCH 27, 2011

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5 PMT NRC METEOROLOGIST AUDIO FILES

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7 MONDAY,

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7 TUESDAY,
8 MARCH 29, 2011

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7 WEDNESDAY,

8 MARCH 30, 2011

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(CONFERENCE CALL INITIATED)

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CHARLIE TINKLER: Tinkler.

TONY HUFFERT: Hi, it's Tony Huffert and Rich Clement.

CHARLIE TINKLER: Hey, Tony.

TONY HUFFERT: Yes.

CHARLIE TINKLER: We're going to need a little more time to digest some of this stuff here.

TONY HUFFERT: Okay.

CHARLIE TINKLER: Okay. Jason's looked at the Embassy thing. And we're going to want to talk to you about this before we proceed, if at all, down this road.

Because, frankly, it looks pretty arbitrary to us. But we want to spend a little more time looking at it. And I want to spend a little time looking at this IAEA thing. Okay?

TONY HUFFERT: Yeah. We're looking at the IAEA thing. And we can give you an analysis of that.

CHARLIE TINKLER: Well, let me look at it. And then after I get done looking at it we'll talk about it. Okay?

TONY HUFFERT: Yes, sir.

CHARLIE TINKLER: Okie doke. Thank you,

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1 sir.

2 TONY HUFFERT: Thanks.

3 CHARLIE TINKLER: Bye-bye.

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(CONFERENCE CALL INITIATED)

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CHARLIE TINKLER: Tinkler.

TONY HUFFERT: Hey, this is Tony Huffert.

I think we have our phones working over here again.

CHARLIE TINKLER: Do you? Wow. I don't know how you guys are going to respond to an emergency if you can't get the phones to work there.

TONY HUFFERT: Well, we've had multiple calls coming in. And it's been kind of crazy.

CHARLIE TINKLER: I know, I know, I know. Well, Jason just took a powder. He went out, I think, for a couple of minutes to grab a bite to eat. So I was going to wait until he comes back.

TONY HUFFERT: Sure.

CHARLIE TINKLER: But we'd be glad to talk you about the IAEA stuff and the other request. And Jason's also thinking maybe, and I might be inclined to agree, that it might be a good idea to come down there and talk to you guys a little bit, if that was a feasible thing for you folks.

TONY HUFFERT: Absolutely, yeah. And could I just offer that if you guys came down, I'm going to leave it up to you to coordinate with the RST folks on shift. I'm not going to --

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1 CHARLIE TINKLER: Sure, sure. Because
2 we're getting a similar request from Fred Brown.

3 TONY HUFFERT: This is the same request.

4 CHARLIE TINKLER: I thought that.

5 TONY HUFFERT: It's the same request. And
6 right now, just to let you know, the NRC staff is preparing
7 a (b)(6) on this.

8 CHARLIE TINKLER: (b)(6)
9 (b)(6) on this.

10 TONY HUFFERT: Yeah.

11 CHARLIE TINKLER: What's that mean?

12 TONY HUFFERT: They're going to give timing
13 on when this stuff is due. And --

14 CHARLIE TINKLER: Who's going to give timing
15 on this stuff, (b)(6)

16 TONY HUFFERT: We've already been told it's
17 due at a certain time. And we're --

18 CHARLIE TINKLER: When?

19 TONY HUFFERT: Like over the weekend.

20 CHARLIE TINKLER: Over the weekend?

21 TONY HUFFERT: Yeah.

22 CHARLIE TINKLER: This is for projecting
23 a dose on April the 15th, right?

24 TONY HUFFERT: Yes, yes.

25 CHARLIE TINKLER: And it's due over the

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1 weekend?

2 TONY HUFFERT: Because apparently what's
3 happened is they've evacuated the Embassy.

4 CHARLIE TINKLER: Right.

5 TONY HUFFERT: And they're planning to allow
6 the U.S. citizens to go back to the Embassy around that
7 time frame. (b)(6)

8 (b)(6)

9 (b)(6)

10 what could possibly release from Unit
11 1 if the containment goes, and if Unit 4 spent fuel goes
12 really --

13 CHARLIE TINKLER: Why are they picking Unit
14 1?

15 TONY HUFFERT: I don't know the answer to
16 your question. I can only speculate at this point. And
17 I'm --

18 CHARLIE TINKLER: Okay, what's your
19 speculation?

20 TONY HUFFERT: Okay. They're talking about
21 an energetic release from Unit 1 --

22 CHARLIE TINKLER: Why Unit 1? Okay --

23 TONY HUFFERT: (Indiscernible).

24 CHARLIE TINKLER: Okay,

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1 TONY HUFFERT: Okay.

2 CHARLIE TINKLER: No, no. I assume it's
3 going to be somebody at the RST could explain that.

4 TONY HUFFERT: Yeah, I can only speculate.
5 And I'm probably going to be proved wrong, but I thought
6 that the containment in Unit 1 was still holding.

7 CHARLIE TINKLER: Yeah, okay.

8 TONY HUFFERT: And if there's a failure --

9 CHARLIE TINKLER: Yeah?

10 TONY HUFFERT: Then there could be more of
11 a release. But this is coming from --

12 CHARLIE TINKLER: Whoa, whoa, whoa, how'd
13 we make that leap?

14 TONY HUFFERT: Looked at (indiscernible).

15 CHARLIE TINKLER: Okay, okay. Is the
16 speculation that an energetic release is more likely
17 from Unit 1, is that coming from our RST?

18 TONY HUFFERT: No, no.

19 CHARLIE TINKLER: Where's it coming from?

20 TONY HUFFERT: This is coming from Japan.
21 This is coming from people over in --

22 CHARLIE TINKLER: Our people in Japan?

23 TONY HUFFERT: Yes. And what I told Richard
24 Lee this morning, with no uncertain terms, I said I
25 am not responsible for these set of assumptions. And

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1 I said I do not --

2 CHARLIE TINKLER: Okay, okay.

3 TONY HUFFERT: -- advocate these measures.

4 So I said what we're going to have to do is talk about
5 this. And if there's another scenario --

6 CHARLIE TINKLER: Energetic release
7 coming from the people we've sent in Japan. Good golly
8 days.

9 TONY HUFFERT: Yeah, you can understand --

10 CHARLIE TINKLER: I know those people. I

11 (b)(5)

12
13 TONY HUFFERT: Exactly. You and I are on
14 the same wave length. And that's why I'm really --

15 CHARLIE TINKLER: Okay. No, we would be
16 glad to, I don't know, when Jason comes we'll think about
17 coming down there and maybe trying to have a conversation
18 with you folks and --

19 TONY HUFFERT: Yeah, and --

20 CHARLIE TINKLER: By the way, we can't help
21 but notice that the IAEA releases are much, much, much,
22 much, much smaller.

23 TONY HUFFERT: Yes.

24 CHARLIE TINKLER: The only question Jason
25 had was did these guys adjust for the fact that the wind

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OK name
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1 was blowing out to sea most of the time. And I concluded
2 by inference that they did. Do you know one way or the
3 other?

4 TONY HUFFERT: No, I don't. But the email
5 thread includes people like Jim Lyons, and Tom McKenna
6 and Mark Shaffer. And these are all former NRC employees.

7 And so we don't know what some of those
8 acronyms mean, when they were talking about they based
9 it on this, and this and this, those silly little names
10 like WMO and CMPRT, whatever the hell it is. We don't
11 know what that means.

12 And I think, what we were told to do now
13 is just keep this in our back pockets.

14 CHARLIE TINKLER: Yeah.

15 TONY HUFFERT: And we can ask more questions,
16 but right now the big focus over here is just on this

17 (b)(5)

18 (b)(5) which is not going to go to us.

19 And then NARAC is going to get involved by
20 going through the NIST group. So there's a whole sequence
21 of events that are happening related to this (b)(5)

22 (b)(5)

23 And I took a look at it when I came in and
24 I started scratching my head. I said --

25 CHARLIE TINKLER: Okay.

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1 TONY HUFFERT: -- you got to be kidding me.

2 CHARLIE TINKLER: I got it, okay. Well,
3 like I said, Jason thought maybe they weren't. I assumed
4 when they say the title of the Table 1, total amount
5 released to atmosphere, it means just that.

6 But I assumed that. If that's what the table says
7 I assume that's what it is. But that question, Jason
8 had that question. And it's a legitimate question.

9 TONY HUFFERT: I don't know their modeling
10 at all.

11 CHARLIE TINKLER: Okay, got you.

12 TONY HUFFERT: Okay.

13 CHARLIE TINKLER: We'll (indiscernible).

14 TONY HUFFERT: Yeah, we'll be here until
15 3 o'clock. And then maybe a little bit longer. But if
16 you guys want to come down and catch a shuttle, that
17 would be exceptionally helpful.

18 CHARLIE TINKLER: Okay.

19 TONY HUFFERT: But if you want to do this
20 by phone with the (indiscernible) --

21 CHARLIE TINKLER: Okay, I understand.
22 Jason was thinking maybe it would be better to be there.
23 But we'll talk about as soon as he gets back.

24 TONY HUFFERT: Great.

25 CHARLIE TINKLER: Okie doke.

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1 TONY HUFFERT: Okay, thanks.

2 CHARLIE TINKLER: Bye-bye.

3 TONY HUFFERT: Bye.

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