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Official Transcript of Proceedings

NUCLEAR REGULATORY COMMISSION

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NEAL R. GROSS AND CO., INC.
Court Reporters and Transcribers
1323 Rhode Island Avenue, N.W.
Washington, D.C. 20005
(202) 234-4433

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UNITED STATES OF AMERICA

NUCLEAR REGULATORY COMMISSION

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JAPAN'S FUKUSHIMA DAIICHI ET AUDIO FILE

+ + + + +

THURSDAY

MARCH 17, 2011

+ + + + +

(CONFERENCE CALL INITIATED)

MALE PARTICIPANT: The team over there copying, they're (inaudible) NRC be mailed now, or are they -- how are we getting them?

MALE PARTICIPANT: I don't know. I haven't heard. That's a good question. They were setting up computers when we were here yesterday, so --

MALE PARTICIPANT: Okay. Are they (inaudible)?

MALE PARTICIPANT: (Inaudible.)

MALE PARTICIPANT: Yes. Well, maybe somebody knows that. Let me --

MALE PARTICIPANT: Yes, I think I've Green Card. I believe I have that on my iPad. I remember that. They don't have the pressure on here. They won't (inaudible). The one I have on here is .101 (inaudible). I'm not sure we (inaudible). One psi equals (inaudible) .006 (inaudible), .007.

MALE PARTICIPANT: .007 pascal (inaudible).

MALE PARTICIPANT: (Inaudible) 145 psi equals (inaudible). So I (inaudible) reactor pressure (inaudible).

MALE PARTICIPANT: Was that a negative?

MALE PARTICIPANT: .17 times 145.

MALE PARTICIPANT: .17 is negative (inaudible).

MALE PARTICIPANT: .17 divided .0068.

MALE PARTICIPANT: 170 (inaudible).

MALE PARTICIPANT: This is 25 -- 24.6 psi (inaudible).

MALE PARTICIPANT: And .043 pascal.

MALE PARTICIPANT: .043 is (inaudible).

MALE PARTICIPANT: 6.2 psi (inaudible).

MALE PARTICIPANT: (Inaudible.)

MALE PARTICIPANT: Yes.

MALE PARTICIPANT: That's 12.7.

MALE PARTICIPANT: Pressure is -- pressure is (inaudible).

MALE PARTICIPANT: Okay. (Inaudible.)

MALE PARTICIPANT: I've got an e-mail here that has pressure, core pressures for Units 1 and 2 (inaudible). And if we're converting them, here it's 25 psi, 6 psi, and 12-1/2 psi.

MALE PARTICIPANT: Okay. (Inaudible.)

MALE PARTICIPANT: Yeah, it's the first time I've heard those numbers.

MALE PARTICIPANT: (Inaudible.)

MALE PARTICIPANT: (Inaudible.)

MALE PARTICIPANT: Where is this pressure?

MALE PARTICIPANT: They're core pressures.

MALE PARTICIPANT: Okay. So they're staying in that (inaudible) pascal?

MALE PARTICIPANT: Yeah. It's stated in megapascals that -- oh, here we go. They're stated in megapascals as .17, .043, and .088 megapascals. Can they get a few more copies of that?

MALE PARTICIPANT: Yeah.

MALE PARTICIPANT: Is that --

MALE PARTICIPANT: No, I've got --

MALE PARTICIPANT: Those are the pressures or --

MALE PARTICIPANT: This is -- and they've got rad levels here, too. And they're data. They're (inaudible) Unit 5 spent fuel pool at 149 degrees, Unit 6 spent fuel pool at 137 degrees.

MALE PARTICIPANT: Fahrenheit or --

MALE PARTICIPANT: Fahrenheit, yes. Unit 4 measured at 183 Fahrenheit on the 15th.

MALE PARTICIPANT: Yeah.

MALE PARTICIPANT: On the 16th, they got (inaudible).

MALE PARTICIPANT: Oh, yeah, I've seen that. Do you know what our efforts are -- what an

update of our efforts might (inaudible)?

MALE PARTICIPANT: Yeah.

MALE PARTICIPANT: Of course, this is the infamous diagram.

MALE PARTICIPANT: Okay. (Inaudible.)

MALE PARTICIPANT: Pump it out of the ocean?

MALE PARTICIPANT: Yes, yeah. Now, is that what they are doing with the water canning, or is that something we are trying to get to?

MALE PARTICIPANT: They are copying their (inaudible).

MALE PARTICIPANT: No, this is not -- this is the system that the NRC is coordinating to try to put onsite --

MALE PARTICIPANT: Okay.

MALE PARTICIPANT: -- to pump water into the spent fuel pool.

MALE PARTICIPANT: Okay.

MALE PARTICIPANT: These systems.

MALE PARTICIPANT: Okay.

MALE PARTICIPANT: But before (inaudible) of the system. We're working with Bechtel. Like I said, this is so completely out of the box.

MALE PARTICIPANT: Yes.

MALE PARTICIPANT: I can't even begin to tell you.

MALE PARTICIPANT: Yes.

MALE PARTICIPANT: We are working with Bechtel and GE --

MALE PARTICIPANT: Okay.

MALE PARTICIPANT: -- Hitachi. Bechtel is really the prime contractor. Okay? We got some parts, some pumps delivered to Yokota, Japan. I don't know where they are. They got on a (inaudible). The Self-Defense Forces left Yokota at 6:00, 6:00 a.m. yesterday Japanese -- Japan time.

MALE PARTICIPANT: We lost (inaudible).

MALE PARTICIPANT: Say again?

MALE PARTICIPANT: We lost the (inaudible).

MALE PARTICIPANT: Okay. So it looks like it's now 1:00. Okay. So it's now 1:00. It's 196 miles from Yokota Air Base to Fukushima. Okay? We don't know where this guy is. We're trying to locate the drivers of this -- these trucks. What we've done is take our line drawings, take the procurement documents that we got in the Navy, provided those to Bechtel. Bechtel is doing a delta analysis.

Okay. Here is the pumps. What is

missing? Trying to figure out, okay --

MALE PARTICIPANT: Connect all this up for the --

MALE PARTICIPANT: -- so we can connect all this up, find out what's missing, locate the parts with redundant parts to make sure that there is no fit-up problem, and deliver it to some staging area outside the nuclear plant.

Once that happens, GE likely has access in Japan, will translate and help, as the Bechtel folks put this thing together in a staging area. The GE people, who are now on the phone with Bechtel, will be translating or help translate and instruct the Japanese folks on how to operate the system.

The things we said was it's got to be dose -- you know, it's got to be on tractor-trailers, minimum disconnect. You drive the tractor-trailers into the site. We ask the PMT to give us a -- to get a dose map of the site, so we have some idea of the health effects of the people who are going to operate these things.

They would drive in, hook this thing up, throw the portable submersible pump out in the ocean, and light this system off and leave.

MALE PARTICIPANT: Yes. So that dose map

is something you guys asked for, not --

MALE PARTICIPANT: Yes.

MALE PARTICIPANT: -- not something the Chairman asked for.

MALE PARTICIPANT: No. No.

MALE PARTICIPANT: Okay.

MALE PARTICIPANT: No.

MALE PARTICIPANT: (Inaudible) GSS.

MALE PARTICIPANT: Yes. It's what we need, so we can design -- do the designs of the system. And we are going to take this information and give it to Bechtel.

MALE PARTICIPANT: What about fuel?

MALE PARTICIPANT: We are also working to get fuel.

MALE PARTICIPANT: And how do you (inaudible) once you've taken it down for the --

MALE PARTICIPANT: Right. Right. We are -- in addition, we are also -- there's a section here, deducted to add boron. So there is -- Vandenberg Air Force Base is boron, 20,000 pounds of boron, from Diablo Canyon, they were going to put on a plane and fly to Yokota.

MALE PARTICIPANT: How does that get into a place where that boron is helping --

MALE PARTICIPANT: There is supposed to be an inductor right there --

MALE PARTICIPANT: Okay.

MALE PARTICIPANT: -- that is supposed to suck this stuff out of the barrel that it's going to come in.

MALE PARTICIPANT: It's coming in in a liquid form?

MALE PARTICIPANT: Actually, I don't know that.

MALE PARTICIPANT: But they're going to have to mix it.

MALE PARTICIPANT: That's what -- this is what Bechtel is going to do. Like I said, Bechtel -- we have these guys. We said, "Get people up. Get them working on this system. It don't matter." And they're doing it right now.

MALE PARTICIPANT: Do we have a sense of the relative importance of the boron versus the water? Is boron lagging?

MALE PARTICIPANT: Yeah.

MALE PARTICIPANT: Can we tell within --

MALE PARTICIPANT: Yes, yes.

MALE PARTICIPANT: -- could the boron get water in it?

MALE PARTICIPANT: Yes. Yes.

MALE PARTICIPANT: Boron -- water without boron is better than no water at all.

MALE PARTICIPANT: Like I said, this is nothing that I have ever done. This is not what regulators do.

MALE PARTICIPANT: No. But we're not in the normal regulatory --

MALE PARTICIPANT: Yes, sir. Okay?

MALE PARTICIPANT: And is somebody talking to them about the needs of the -- you know, the width of the path of -- that they drive these things on? Because somebody is going to have to clear the path probably, right? You've got explosions that have covered the road, and all that kind of stuff. You know, is it a 10-foot wide path, or a 20-foot wide path?

MALE PARTICIPANT: Well, that -- see, because it has been seven hours, and, you know, they have been driving for -- you know, it's less than a three-hour drive. So basically road-clearing is what you're asking about.

MALE PARTICIPANT: Just -- yeah.

MALE PARTICIPANT: (Inaudible.)

MALE PARTICIPANT: Onsite. They

(inaudible) even, you know, nearby, because they have a path to get there once they drive the trucks up into the area. I mean, we know that the reactor buildings are blown apart, and there is debris all over the place.

MALE PARTICIPANT: No, that's good. That's good. So we're thinking of how many of those systems?

MALE PARTICIPANT: Four.

MALE PARTICIPANT: So you get the height and the elevation, so you know how many boots (phonetic) are functioning to get it from there to there to there.

MALE PARTICIPANT: You know they are (inaudible) four for the pool.

MALE PARTICIPANT: No, these are for the pool.

MALE PARTICIPANT: For the pool. (Inaudible.)

MALE PARTICIPANT: All four pools.

MALE PARTICIPANT: I imagine there's (inaudible) than that, because they are (inaudible).

MALE PARTICIPANT: Right. But --

MALE PARTICIPANT: Yeah.

MALE PARTICIPANT: -- at this stage --

MALE PARTICIPANT: Yes, I know they (inaudible).

MALE PARTICIPANT: Once we get the stuff onsite, you can -- at the very least, you might be able to load it up, have the thing operate for a while, go back, load it up again, right, move --

MALE PARTICIPANT: Absolutely.

MALE PARTICIPANT: Yeah. I mean, you're going to have -- it's going to be heroic efforts, because you're going to have somebody running toward the pool.

MALE PARTICIPANT: And hooking up a hose somewhere. Or is it just spray -- the design here at the end is just --

MALE PARTICIPANT: Yeah. What we're -- you know, Bechtel has got -- they should be on the phone again with us with a series of questions.

MALE PARTICIPANT: Now, this is unrelated to water cans.

MALE PARTICIPANT: Oh, yeah. The water cans, yes, right, unrelated to the water cans.

MALE PARTICIPANT: Why is it unrelated to the water cans? You know, I'm thinking in the water --

MALE PARTICIPANT: This is a separate --

this is a separate effort.

MALE PARTICIPANT: This is in addition to the water --

MALE PARTICIPANT: The Chairman said this is our top priority.

MALE PARTICIPANT: This thing.

MALE PARTICIPANT: (Inaudible) three hours (inaudible).

MALE PARTICIPANT: Oh, yeah. Right, right, right, right, right. As a matter of fact, they --

MALE PARTICIPANT: There is a comment over here of a little bit of water would be worse by just creating more zirc water reaction without, you know, (inaudible) the fuel. So have we -- have we come to that decision of what's the best path for (inaudible)? It's not clear to me that we have --

MALE PARTICIPANT: This looks like --

MALE PARTICIPANT: -- on water (inaudible) I think maybe focuses on --

MALE PARTICIPANT: -- unknown sender.

MALE PARTICIPANT: -- (inaudible) electricity.

MALE PARTICIPANT: (Inaudible.)

MALE PARTICIPANT: That's a good question.

Can we have -- can we dig back in our records and see what came back from that NISA/TEPCO meeting?

MALE PARTICIPANT: Sure. (Inaudible) talk about.

MALE PARTICIPANT: Huh? What?

MALE PARTICIPANT: It says Official Use Only. Can I -- I want to send this to Z (phonetic).

(Multiple inaudible speakers.)

MALE PARTICIPANT: It says Official Use Only, but if these guys are designing the system, maybe -- so I can't send this to GE.

MALE PARTICIPANT: Is there -- how will we -- if we are giving something to Bechtel to design, I don't even know for sure who that came from.

MALE PARTICIPANT: This is the Navy. It has U.S. Navy. This is -- and I would say this is naval --

MALE PARTICIPANT: (Inaudible.)

MALE PARTICIPANT: This is naval reactor.

MALE PARTICIPANT: I mean, it reads to me like it's Naval Reactors, but I can't --

MALE PARTICIPANT: Yeah. No, I --

MALE PARTICIPANT: You're looking at the "to" block.

MALE PARTICIPANT: Yes, Tom Roberts, to

Tom Roberts and VASA (phonetic). These are the Naval Reactors guys that are here.

MALE PARTICIPANT: Okay. That are here? I didn't realize we had people here. And it's being sent from somewhere else in Naval Reactors?

MALE PARTICIPANT: Yes.

MALE PARTICIPANT: Then, ask those guys here if we can share it with (inaudible).

MALE PARTICIPANT: So --

MALE PARTICIPANT: What's this thing?

MALE PARTICIPANT: -- I mean, if we're asking them to --

MALE PARTICIPANT: Well, I don't want to get (inaudible).

MALE PARTICIPANT: That's a status that was e-mailed in from the -- I think it's -- I'm reading it as being like Japanese NEI in Washington, the Federal of Electric Power Companies of Japan. But they're down on L Street in Washington.

MALE PARTICIPANT: Okay.

MALE PARTICIPANT: I mean, that would -- e-mailed midday yesterday.

MALE PARTICIPANT: Okay.

MALE PARTICIPANT: So what I'll do with this, I'll turn this over to Mike, Reactor Safety

Team, and let -- ask him to evaluate this about the advisability of using sand versus water based on this review.

MALE PARTICIPANT: Yeah.

MALE PARTICIPANT: Speak of the devil.

MALE PARTICIPANT: Speak of the devil.

MALE PARTICIPANT: (Inaudible.) Oh, yes. No, that's what I wanted to (inaudible), but thank you for (inaudible).

(Laughter.)

This is what our colleagues from Naval Reactors sent David. Okay? And this is about whether you stick sand on it or not.

MALE PARTICIPANT: This is --

MALE PARTICIPANT: They had talked to me and said they were going to send us an analysis to say -- the, you know, sand versus water argument. This is their technical argument about this. And if you read it, it's -- I think it's sand. So, but it says sand first and then water.

(Inaudible) the spent fuel pool bundles with (inaudible). Two, deliver (inaudible) poised to prevent criticality. Cooling water is bundled. So there is (inaudible).

So what we might want to do -- I had asked

-- you know, we've got to evaluate this, and right or not, and, if necessary, try to procure the sand, put the sand in first, then the water.

FEMALE PARTICIPANT: This is what we came up with. We have a NUREG that (inaudible) says that -- that this is what we've had. That's not new information. That's --

MALE PARTICIPANT: Right.

FEMALE PARTICIPANT: -- also what our fire people have been telling us every day, saying that --

MALE PARTICIPANT: The key word is --

FEMALE PARTICIPANT: -- this is analysis that we did for decommission of the spent fuel pool, and that was what the answer was: sand.

MALE PARTICIPANT: And it's not like there's not sand around there that (inaudible).

MALE PARTICIPANT: Yes, probably (inaudible). But our reactor safety people have to come up with a decision about yes or no.

MALE PARTICIPANT: Well, yeah. I mean, if you guys are doing this, and we're -- and then we're saying sand is the right thing, then maybe --

MALE PARTICIPANT: Well, no, no. It's not sand.

FEMALE PARTICIPANT: This is in the

interim.

MALE PARTICIPANT: It's sand, then water.

FEMALE PARTICIPANT: Then water.

MALE PARTICIPANT: And what (inaudible) is that?

MALE PARTICIPANT: And it's what we've said.

FEMALE PARTICIPANT: We've been saying it for three days, that we need to get sand.

MALE PARTICIPANT: Over top.

FEMALE PARTICIPANT: Over top, because it smothers it and provides shielding, you know, all --

MALE PARTICIPANT: Have we heard back from the folks over in Japan about that? (Inaudible) checking back in the log to see if there's any --

MALE PARTICIPANT: When we left this morning, Moninger (phonetic) had gone to meet with (inaudible) at TEPCO to talk about the (inaudible) after we left shift (inaudible).

FEMALE PARTICIPANT: That was the list we put together at 6:30 --

MALE PARTICIPANT: Right.

FEMALE PARTICIPANT: -- this morning.

MALE PARTICIPANT: So you know what -- you understand what --

FEMALE PARTICIPANT: Sand, clay --

MALE PARTICIPANT: -- project.

MALE PARTICIPANT: Right.

FEMALE PARTICIPANT: -- (inaudible) sand.

MALE PARTICIPANT: Exactly.

MALE PARTICIPANT: And if it's sand, then you've got to get the sand there.

MALE PARTICIPANT: And we actually scanned an e-mail from that one page out of the NUREG that --

FEMALE PARTICIPANT: Right.

MALE PARTICIPANT: -- all of that stuff.

FEMALE PARTICIPANT: Right. Our NUREGs are (inaudible) that option. We sent that to them at 6:30 yesterday.

MALE PARTICIPANT: Sent that to who?

MALE PARTICIPANT: Sent that to Moninger to go into his meeting with -- with TEPCO.

FEMALE PARTICIPANT: Yes.

MALE PARTICIPANT: Okay. But what is surprising is we were on a phone call with them, and they were saying water, not sand.

FEMALE PARTICIPANT: I'm just telling you what our recommendation was yesterday at 6:30 was sand. That's what --

MALE PARTICIPANT: It sounds like you need

to get on the phone with them and hash this out.

MALE PARTICIPANT: That's why -- that's part of why I'm asking for information, because --

MALE PARTICIPANT: Hash it out with the people in country.

MALE PARTICIPANT: Yes.

FEMALE PARTICIPANT: Okay.

MALE PARTICIPANT: With Moninger and Altsin (phonetic) and --

MALE PARTICIPANT: The going-in question was Moninger had called us up and said, "We're going to meet with them in 45 -- we're leaving in 45 minutes."

FEMALE PARTICIPANT: Right.

MALE PARTICIPANT: "And what they've told us is" -- and that's where we got that Unit 4 was dry was from that conversation, and that this was -- you know, you've got a dry pool again, no water.

FEMALE PARTICIPANT: And we called back to NRR's (inaudible). As a matter of fact, I think we called all of them. We robo-dialed (phonetic) them yesterday, and every single one of them, the first thing that came out of their mouth was "sand."

And that's also consistent with NUREG-1333, which we have, but it specifically deals with

disasters for spent fuel pools. I mean, I like that analysis, but that's not telling us anything we don't already know.

MALE PARTICIPANT: And we use this as confirmation.

FEMALE PARTICIPANT: Right.

MALE PARTICIPANT: Well, the question is, it's great that we're working on these pumps in the water and boron, get somebody working on sand.

MALE PARTICIPANT: Right. Japanese (inaudible).

FEMALE PARTICIPANT: That was our next (inaudible) is call and --

MALE PARTICIPANT: And you need to get sand.

MALE PARTICIPANT: What's the story on fuel? (Inaudible.)

MALE PARTICIPANT: Yes. Talk to Scott. Scott is working on the fuel --

FEMALE PARTICIPANT: No, he just pointed to you.

MALE PARTICIPANT: No, Scott --

(Laughter.)

FEMALE PARTICIPANT: He's got your name to buy fuel.

MALE PARTICIPANT: Buy fuel?

FEMALE PARTICIPANT: Yes, it --

MALE PARTICIPANT: What's the general story on fuel? Has fuel been a problem to this point? Or has fuel not even come up to this point?

MALE PARTICIPANT: No, no.

MALE PARTICIPANT: There has been a lot of talk about --

MALE PARTICIPANT: We know you can't get the fuel to the diesel generators, right? I mean, the fuel that they had is gone, right? Is that one of the problems --

MALE PARTICIPANT: Right.

MALE PARTICIPANT: -- we're (inaudible)? So it -- I'm just making --

MALE PARTICIPANT: The guys in country were supposed to be doing it.

MALE PARTICIPANT: Jim Trapkin (phonetic).

MALE PARTICIPANT: Right. That's right, that's right.

MALE PARTICIPANT: Jim Trapkin is working on that.

MALE PARTICIPANT: Yes. Now I know why I wasn't (inaudible) reporting to me. I'm thinking --

FEMALE PARTICIPANT: You ask the contact

(inaudible).

MALE PARTICIPANT: Oh, okay.

MALE PARTICIPANT: Moninger works on the trucks. You know that's the trucking (inaudible)?

MALE PARTICIPANT: We keep asking them, but you've got to go back to them again about the trucks.

MALE PARTICIPANT: Okay.

MALE PARTICIPANT: No, no, I'm just saying, I -- it's been a long day. It's no longer the same day, actually.

FEMALE PARTICIPANT: All right. (Inaudible.) Who is my other friend there?

MALE PARTICIPANT: Mark.

MALE PARTICIPANT: Get him to read this. Whatever structural engineer we've got from NRR, wake him up and --

MALE PARTICIPANT: No, no, he's there. We've got a structural engineer. He's --

FEMALE PARTICIPANT: That's the tall guy.

MALE PARTICIPANT: The tall guy. He is here.

FEMALE PARTICIPANT: I'll make a copy and give it to the tall guy.

MALE PARTICIPANT: Get him to read that

and see if we're on the right path.

MALE PARTICIPANT: Well, let's get sand in there.

MALE PARTICIPANT: Okay. Where the hell am I going to get sand?

MALE PARTICIPANT: If we get USFJ involved, and let them get the sand, I mean --

MALE PARTICIPANT: Get nice sand and forward it to Japan.

MALE PARTICIPANT: So the military -- let the military guys solve that problem.

MALE PARTICIPANT: (Inaudible.)

MALE PARTICIPANT: He's got a --

MALE PARTICIPANT: Well, our liaison team has got connections --

MALE PARTICIPANT: Make contact.

MALE PARTICIPANT: -- with them, and say, "We believe" -- I mean, if we as a -- if we're recommending sand first, then we need to tell them --

MALE PARTICIPANT: To get it. It's going to take a while to get it.

MALE PARTICIPANT: Sand is going to be a lot easier to get than -- we've just got to get it in there.

MALE PARTICIPANT: Yeah.

MALE PARTICIPANT: Getting it in there is the question. Is it possible (inaudible)?

MALE PARTICIPANT: Let's think about it. I mean, are those -- do those (inaudible) buckets that drop -- how do they drop water? Can they dump sand the same way they dump water?

MALE PARTICIPANT: The other problem is, we've got to put a hole in --

MALE PARTICIPANT: You need to go to someone. You need to drop it somewhere in --

MALE PARTICIPANT: There's a hole in one of the units --

MALE PARTICIPANT: I don't know.

MALE PARTICIPANT: -- in the Unit 4 -- no, not Unit 4. Unit 4 you don't have to worry about. It's Unit 2 that you've got to put the hole in.

MALE PARTICIPANT: Oh, okay. Great. Thanks.

MALE PARTICIPANT: Yes.

MALE PARTICIPANT: (Inaudible.)

MALE PARTICIPANT: You've got extra people out there. I mean, somebody could be working on the sand problem.

MALE PARTICIPANT: Okay, I'll get on it.

MALE PARTICIPANT: Well, we only need the

sand for Unit 4 as of last (inaudible).

MALE PARTICIPANT: Well --

MALE PARTICIPANT: I would say that was the priority --

MALE PARTICIPANT: Right.

MALE PARTICIPANT: -- because that's what we were told was dry --

MALE PARTICIPANT: And Unit 4 -- sand is for Unit 4.

MALE PARTICIPANT: Well, the other sand, water is (inaudible).

MALE PARTICIPANT: Right.

MALE PARTICIPANT: It spews over --

MALE PARTICIPANT: Right.

MALE PARTICIPANT: -- and I (inaudible).

MALE PARTICIPANT: Well, you got something about a remote-operated helicopter that's in Pax River, and they're asking us if we want that.

MALE PARTICIPANT: Oh, of the -- okay. Great. (Inaudible) remote-operated for pictures?

MALE PARTICIPANT: Well, I can't imagine it can (inaudible). But we didn't -- we just got that report. We haven't followed up on that, but you'll have to think about that. And if --

MALE PARTICIPANT: That's the other

question. It would be nice if we get (inaudible).

MALE PARTICIPANT: No, because we're going to work on --

(Multiple inaudible speakers.)

MALE PARTICIPANT: -- find out where this stuff is.

MALE PARTICIPANT: Yes.

MALE PARTICIPANT: Is that a kind of helicopter or --

MALE PARTICIPANT: You have (inaudible).

MALE PARTICIPANT: (Inaudible.)

MALE PARTICIPANT: Well, it says two tons, but two tons is --

MALE PARTICIPANT: Okay. I'm out of here.

MALE PARTICIPANT: Thanks. Have a good day.

MALE PARTICIPANT: We made progress.

MALE PARTICIPANT: Did we make enough progress?

MALE PARTICIPANT: Only time is going to tell if we made enough progress.

MALE PARTICIPANT: (Inaudible) markup that Chuck had said, "Four portable pumps due to arrive at Daiichi Thursday afternoon from Yokota." So that would mean anytime now.

MALE PARTICIPANT: (Inaudible.)

MALE PARTICIPANT: Have you gotten -- in any of your interactions, have you gotten a sense of the effectiveness and continuity of communications between Tokyo and the site?

MALE PARTICIPANT: They're not putting that together, because they have so (inaudible). We'll find out when they do it.

MALE PARTICIPANT: (Inaudible) driving the truck, is that what I heard?

MALE PARTICIPANT: Yes.

MALE PARTICIPANT: Okay. (Inaudible.) It's about time for me to call (inaudible).

MALE PARTICIPANT: Okay. Drive careful.

MALE PARTICIPANT: Have a good one.

MALE PARTICIPANT: How do we expect to get the data? It's not coming with TNT (phonetic)?

MALE PARTICIPANT: It's supposed to come from (inaudible).

MALE PARTICIPANT: (Inaudible) plugged in, and then we get a feed from the (inaudible)?

MALE PARTICIPANT: Well, I heard that Web ELC (phonetic) is down, so -- we would normally get it through that. (Inaudible.)

MALE PARTICIPANT: Okay.

MALE PARTICIPANT: This is NEI GA, NEI information, that I'm using for fuel storage at the site, is that (inaudible)?

MALE PARTICIPANT: (Inaudible) NEI product. They've got -- it's a whole thing on the fuel storage there, and then the (inaudible) is going to (inaudible). These are all the things that we've done. They've got digital (inaudible).

MALE PARTICIPANT: Yeah, yeah, yeah, yeah. That's all the things that they're doing. (Inaudible.) And this one -- but that's actually from useful data (inaudible).

(Multiple inaudible speakers.)

MALE PARTICIPANT: Perhaps. I don't know.

MALE PARTICIPANT: (Inaudible.)

MALE PARTICIPANT: Maybe that's all they're looking for is what kind of (inaudible), you know, what is the -- it's not a bad idea to think about what they're going to say.

MALE PARTICIPANT: All right. We're going to get the data from NARAC (inaudible). I don't know if that gets into any of the --

MALE PARTICIPANT: The data from NARAC you're (inaudible) when? They have a 1:00 a.m. conference call to talk about when we're going to use

(inaudible).

MALE PARTICIPANT: Okay.

MALE PARTICIPANT: I will note that they never got -- remember last night we were talking about the data from (inaudible)? It went out before they had permission.

MALE PARTICIPANT: Yeah.

MALE PARTICIPANT: NARAC never gave that to us, so communication was (inaudible). They are having this 1:00 call.

MALE PARTICIPANT: So NARAC -- NARAC is where? Are they in Las Vegas?

MALE PARTICIPANT: FRMAC (phonetic) is (inaudible).

MALE PARTICIPANT: Well, out in California, yes.

MALE PARTICIPANT: (Inaudible.)

MALE PARTICIPANT: Right. So how do --

MALE PARTICIPANT: Well --

MALE PARTICIPANT: I'm just trying to figure out, how does NARAC fit into the monitoring picture? Isn't NARAC the ones that do the (inaudible)?

MALE PARTICIPANT: (Inaudible.)

MALE PARTICIPANT: So they're all part of

DOE? Is NARAC part of DOE?

MALE PARTICIPANT: It's part of (inaudible).

MALE PARTICIPANT: Yeah, yeah, they are part of DOE.

MALE PARTICIPANT: Okay. They are the part of DOE that also has the

MALE PARTICIPANT: So FRMAC doesn't have the (inaudible)?

MALE PARTICIPANT: Well, that's -- FRMAC is also part of that team.

MALE PARTICIPANT: Okay. NARAC is the umbrella organization. FRMAC is a subset of NARAC?

MALE PARTICIPANT: I think FRMAC is the (inaudible).

MALE PARTICIPANT: NARAC is a subset?

MALE PARTICIPANT: I'm guessing. I don't want to (inaudible). Yeah, they're all related to each other under GM-60 (phonetic), I think. No, no, NA-60 (phonetic), the DOE group.

MALE PARTICIPANT: Okay.

MALE PARTICIPANT: (Inaudible.)

MALE PARTICIPANT: Okay.

MALE PARTICIPANT: So the 1:00 call is about their -- for them --

MALE PARTICIPANT: The 1:00 call, I really don't know.

MALE PARTICIPANT: No, no, no, no, no. The 1:00 call --

MALE PARTICIPANT: (Inaudible) going to get the data for (inaudible).

MALE PARTICIPANT: -- is to ask what's going on with the (inaudible), when are we going to get the data, (inaudible).

MALE PARTICIPANT: (Inaudible) five hours ago.

MALE PARTICIPANT: Yeah. No, that's a good -- so, I mean, yeah -- I mean, that --

MALE PARTICIPANT: They did tell us they were going to analyze it before they gave it to us.

MALE PARTICIPANT: For how long?

MALE PARTICIPANT: That they didn't tell us. So (inaudible) quite a bit. They haven't been very close (inaudible).

MALE PARTICIPANT: So what about the four (inaudible)? Are we doing -- are we getting any more from them?

MALE PARTICIPANT: I -- yeah, that is going to be -- our version of that is going to be this extension of the (inaudible). We did ask for their

assumptions (inaudible). I don't think we've gotten it. It's for them to decide (inaudible) in the course of a year from (inaudible). So, in other words, eating, drinking, a one year-old drinking from --

MALE PARTICIPANT: (Inaudible) that had iodine in it.

MALE PARTICIPANT: All right. That's a little bit different.

MALE PARTICIPANT: (Inaudible.)

MALE PARTICIPANT: It's a farmer scenario, I'm sure, where they're drinking the same cow's milk, that kind of --

MALE PARTICIPANT: And we don't know how the (inaudible) to get that.

(Multiple inaudible speakers.)

MALE PARTICIPANT: So we had an earthquake at a Canadian plant today, 45 miles west of Montreal, 56 miles east of Ottawa. Could we stand up a team to track that one?

MALE PARTICIPANT: What was it, say again?

MALE PARTICIPANT: 3.5. Yeah, I think it was a small one.

MALE PARTICIPANT: Forty-five miles west of Montreal, how many miles east of Ottawa?

MALE PARTICIPANT: Fifty-six east of

Ottawa. That's in between Ottawa and Montreal.

MALE PARTICIPANT: Ottawa and Montreal aren't that far apart.

MALE PARTICIPANT: Ottawa and Montreal aren't much farther apart than that.

MALE PARTICIPANT: No. Ottawa and Montreal are very close (inaudible).

MALE PARTICIPANT: You can fly into Montreal and drive to Ottawa. I only know that because we have a (inaudible).

MALE PARTICIPANT: (Inaudible.)

MALE PARTICIPANT: No, Ottawa is between (inaudible) and Montreal. Ottawa is on the border of Quebec and (inaudible). That's why they picked it to do that.

FEMALE PARTICIPANT: Yeah, it's (inaudible).

MALE PARTICIPANT: Must be triangular or (inaudible).

MALE PARTICIPANT: (Inaudible) across the lake from Ganay (phonetic), Nine Mile Point (phonetic), but they're further away than (inaudible).

(Multiple inaudible speakers.)

MALE PARTICIPANT: But I can tell you this, that if it's (inaudible), 4.3. It's 10,000

times what they felt in Japan, but --

MALE PARTICIPANT: (Inaudible.)

MALE PARTICIPANT: It was 3.5, or something like that. Yeah.

MALE PARTICIPANT: (Inaudible) order of magnitude (inaudible).

MALE PARTICIPANT: (Inaudible) TEPCO. The power was out longer at TEPCO than it was in Japan.

MALE PARTICIPANT: Well, you ought that compare that. That would be good to compare.

MALE PARTICIPANT: (Inaudible) is anywhere in the (inaudible) any other team over there. (Inaudible.)

MALE PARTICIPANT: Do you want me to continue the search or --

MALE PARTICIPANT: No. (Inaudible) next time they pop in it will (inaudible).

MALE PARTICIPANT: One question the Chairman got today down in the hearing was, how many people died at Chernobyl? (Inaudible.)

(Multiple inaudible speakers.)

MALE PARTICIPANT: I have like 49.

MALE PARTICIPANT: Oh, no, because the (inaudible). Is that what the question was about?

MALE PARTICIPANT: No. It's how many

people died?

MALE PARTICIPANT: Do you include like the children that died of cancer or whatever? Because then you get into (inaudible). The number is about (inaudible); 49 is (inaudible).

(Multiple inaudible speakers.)

MALE PARTICIPANT: Quick question for you. I got a call from The Financial Times. There were reports that the NRC is backing off earlier comments about the 50-mile evacuation. And (inaudible) hear anything?

MALE PARTICIPANT: No.

MALE PARTICIPANT: Is the Chairman still out there with that message (inaudible)?

(Multiple inaudible speakers.)

MALE PARTICIPANT: I just wanted to make sure you hadn't heard anything before I call this reporter back.

MALE PARTICIPANT: No, I have not heard anything. I think (inaudible) trying to back off on whether the (inaudible). That was the information that we -- yeah, there was talk late afternoon of the Japanese apparently denied that, and the Chairman -- there was a comment I saw in one report that goes to the Chairman that is kind of like (inaudible). But

that was the best information that we got from our staff in (inaudible).

MALE PARTICIPANT: (Inaudible) last night there was some discussion of this geometry with (inaudible).

MALE PARTICIPANT: I don't know about the [redacted] but the DOE (inaudible).

(Multiple inaudible speakers.)

MALE PARTICIPANT: [redacted] 5

[redacted] (Inaudible.)

MALE PARTICIPANT: (Inaudible.)

MALE PARTICIPANT: Yeah. They knock down a little bit of the radiation that (inaudible).

MALE PARTICIPANT: If you were a pilot, how low would you go?

MALE PARTICIPANT: I'm just saying, it seems a little high if they're trying to put out a fire.

MALE PARTICIPANT: Low and fast?

(Laughter.)

MALE PARTICIPANT: Well, IAEA won't give a definitive answer to the long-term debt, because they talk about people that have committed suicide and ended up with drinking problems and --

MALE PARTICIPANT: Yes.

MALE PARTICIPANT: -- and how do you sort out the --

MALE PARTICIPANT: The suicidal drinking problems in the Soviet Union from the --

MALE PARTICIPANT: From (inaudible).

MALE PARTICIPANT: Yeah.

(Laughter.)

MALE PARTICIPANT: Yeah, I was really more interested in the one (inaudible), suicidal drinking problem. But I don't credit that necessarily to the plant.

MALE PARTICIPANT: (Inaudible.)

MALE PARTICIPANT: Look at the devastation of the tsunami and tell me how many of the suicidal drinking problems were (inaudible) nuclear plant versus all the rest of the devastation.

(Multiple inaudible speakers.)

MALE PARTICIPANT: All right. How are you doing tonight?

(Multiple inaudible speakers.)

MALE PARTICIPANT: The update that Chuck provided on the Tuesday (inaudible) indicates that the pumps should be arriving at the site in (inaudible) hours, Thursday afternoon at 2:00 over there. We will get some confirmation of that.

And they did not (inaudible) we sent over to them for the (inaudible) ability to retain (inaudible). We (inaudible) sent that over, but they didn't change that, so -- I guess the PMT has a call right now with DOE to try to figure out when we're going to get the data from (inaudible).

(Multiple inaudible speakers.)

(CONFERENCE CALL INITIATED)

MALE PARTICIPANT: (Inaudible) put out this call. I wonder if we shouldn't take a look at that (inaudible).

MALE PARTICIPANT: (Inaudible.)

MALE PARTICIPANT: Did you see what -- you saw the list of things that didn't go as having (inaudible)?

MALE PARTICIPANT: It's an INPO SOER. It's got due dates. No, I have not seen that, but that's what these four bullets are. There's both a potential for either a smart sample (phonetic) and TI to look at the following areas. They're going to inspect their implementation of an INPO SOER?

MALE PARTICIPANT: It sounds like that's what we're going to (inaudible).

MALE PARTICIPANT: We have put out a TI that would inspect the (inaudible) implementation of the NEI guidelines on groundwater protection. This isn't so far afield of that.

MALE PARTICIPANT: Whether we want to wait or -- I had understood that we had a commitment that you would get to either assault (inaudible) their initiative. Did I get that wrong?

MALE PARTICIPANT: I didn't read it in

there, but --

MALE PARTICIPANT: No, it was probably -- it's not written in here, but I -- I thought I had heard in another conservation that -- when we were informed that they were doing this a couple of days ago that there was some conversation around, you know, they are going to get (inaudible) report and get back on the implementation --

MALE PARTICIPANT: Yeah, right.

MALE PARTICIPANT: -- of these actions, and then we would be -- have access to the results, recognizing that they do not (inaudible) if that would be enough, or if that (inaudible) would be an opportunity at least to smart sample (inaudible) what they're trying to do. It's something that we need to have spaces for our assurance that --

MALE PARTICIPANT: Yeah, but there was --

MALE PARTICIPANT: If they're all out doing the right thing --

MALE PARTICIPANT: Right.

MALE PARTICIPANT: -- well, let's not get in the way.

MALE PARTICIPANT: No. I agree. We can set (inaudible) without doing (inaudible).

MALE PARTICIPANT: Yeah.

MALE PARTICIPANT: Yeah. I mean, like (inaudible).

MALE PARTICIPANT: Start with PWRs, then earthquake zone, and go from there.

MALE PARTICIPANT: Yeah.

MALE PARTICIPANT: And the (inaudible) they have in place from the original (inaudible) inspection.

MALE PARTICIPANT: Right.

MALE PARTICIPANT: Things that they would be less concerned about, but they want to take a look at. So you got a call from The Financial Times that they had heard something like we were backing off from the 50-mile recommendation. (Inaudible) they call us back and say no, so --

MALE PARTICIPANT: (Inaudible.)

MALE PARTICIPANT: Good.

MALE PARTICIPANT: (Inaudible) 9:30 last night.

MALE PARTICIPANT: Let's get this and everything (inaudible).

MALE PARTICIPANT: Do you understand what (inaudible) on top of the (inaudible)? No technical conception of what --

MALE PARTICIPANT: Why would they do that?

Yeah.

MALE PARTICIPANT: Unless I guess we did hear that they thought there was going to be some zirconium interactions in the fuel pool, but they --

MALE PARTICIPANT: They were leaving to go talk to NISA/TEPCO. The input they got from NISA/TEPCO was that they were having a zirc water reaction.

MALE PARTICIPANT: Maybe they're trying to get water into the pools.

MALE PARTICIPANT: (Inaudible) the reaction?

(Laughter.)

They've got such a negative outlook. No, I'm just --

MALE PARTICIPANT: Do you know what they've done? I mean, that's (inaudible). They could vaporize, they could (inaudible).

MALE PARTICIPANT: It's a mess, if you've really got -- if you've really got a zirc pool.

MALE PARTICIPANT: (Inaudible.)

MALE PARTICIPANT: Well, gentlemen, (inaudible). Would you like to know what (inaudible)?

MALE PARTICIPANT: I'm never quite sure, Mike, but --

MALE PARTICIPANT: Go ahead.

MALE PARTICIPANT: Well, you know, before you start, do you want to get the other -- is there time -- should we get all of the team leads assembled and --

MALE PARTICIPANT: Sure.

MALE PARTICIPANT: -- kind of want everybody here?

MALE PARTICIPANT: Yeah, let's do that.

MALE PARTICIPANT: Do you want to do that?

MALE PARTICIPANT: Yeah.

MALE PARTICIPANT: Let's round up the (inaudible).

MALE PARTICIPANT: You and Humphrey think alike.

(Laughter.)

I want that line. It's a great (inaudible).

(Laughter.)

MALE PARTICIPANT: Not that we didn't want a special audience just with you, but, you know, we wanted to have enough people to --

MALE PARTICIPANT: Okay.

MALE PARTICIPANT: We're working on getting a remotely-operated (inaudible) here. We're

not going to get the AMS data.

MALE PARTICIPANT: Okay.

MALE PARTICIPANT: That's the (inaudible) three to four hours, but they don't even think that's realistic.

MALE PARTICIPANT: The plane hasn't landed yet.

MALE PARTICIPANT: From the first one, the plane hasn't landed?

MALE PARTICIPANT: That flight was supposed to be five hours ago.

MALE PARTICIPANT: Yes.

MALE PARTICIPANT: I don't know if that's the (inaudible) the AMS is (inaudible).

MALE PARTICIPANT: Area Monitor -- Area Maintenance Systems out of Las Vegas.

MALE PARTICIPANT: Yeah, it was supposed to leave -- it was supposed to take off at 9:00, right? I'm on the phone right now with (inaudible), and they said the plane has not landed yet. Best case scenario is three to four hours, but they think that's optimistic, because they (inaudible).

MALE PARTICIPANT: Okay.

MALE PARTICIPANT: So, I'm sorry, Gary. They're flying (inaudible) in and out?

MALE PARTICIPANT: Yes.

MALE PARTICIPANT: Okay.

MALE PARTICIPANT: Well, I think they're done and they're on the way back to land.

MALE PARTICIPANT: So 5:00?

MALE PARTICIPANT: Yes.

MALE PARTICIPANT: Best case.

MALE PARTICIPANT: Best case.

MALE PARTICIPANT: And you said that was when they were (inaudible).

MALE PARTICIPANT: They'll land within a half hour.

MALE PARTICIPANT: Oh, okay.

MALE PARTICIPANT: Three or four hours, best case is for us to have data.

MALE PARTICIPANT: Right.

MALE PARTICIPANT: What we are getting right now is we are getting -- if you remember, at 5:00 this morning I reported that they did have some sample at the Air Force Base. We are going to get those concentration levels.

MALE PARTICIPANT: (Inaudible.)

MALE PARTICIPANT: Well, (inaudible) prioritizing is we don't know how -- we've got -- we just got a lot of information on (inaudible), and we

are using that to create a map for the reactor safety team to illustrate the hazards or ability to put in equipment, this pumping equipment (inaudible) the design.

MALE PARTICIPANT: (Inaudible.)

MALE PARTICIPANT: It's current as of noon today, and it's from some organization called the -- something -- the Intercollection of Japanese Utilities. Something like that.

MALE PARTICIPANT: They're in today's (inaudible) or --

MALE PARTICIPANT: Probably are.

MALE PARTICIPANT: (Inaudible.)

MALE PARTICIPANT: (Inaudible) today our time.

MALE PARTICIPANT: (Inaudible.)

MALE PARTICIPANT: Yeah, yeah.

(Laughter.)

MALE PARTICIPANT: (Inaudible.)

MALE PARTICIPANT: Yeah, this data.

MALE PARTICIPANT: Okay.

MALE PARTICIPANT: We're using this data. Everybody is (inaudible)?

MALE PARTICIPANT: We don't have anything better than that.

MALE PARTICIPANT: Yep.

MALE PARTICIPANT: Okay. Other than that, we're working as a third priority is to get you guys a plain English explanation of why the disparity in the one core release estimate is higher than the three core release estimate -- trying to explain that.

But that's the big discussion on the line right now is that all of these professionals are frustrated in that, and we have a lack of data, and we are just taking worst-case scenarios, and, you know, it's not being managed properly, through the proper context.

So Lou is working with an individual from --

MALE PARTICIPANT: Chuck Casto (phonetic) is coming up to the conference.

MALE PARTICIPANT: Lawrence Livermore Lab to try to (inaudible).

MALE PARTICIPANT: Hello, Chuck Casto.

MR. CASTO: Hi. Good evening.

MALE PARTICIPANT: Good morning, Chuck.

MR. CASTO: Good morning, whatever it is over there. How is everything -- how is everything going there?

MALE PARTICIPANT: I don't know. Your

calls keep waking us up.

MR. CASTO: I'm sorry.

(Laughter.)

Sorry to wake you.

MALE PARTICIPANT: Well, what the heck do you need now?

MR. CASTO: Nothing. Actually, I was calling to tell you -- here, I'm going to put you on the speakerphone. Actually, I'm not demanding anything this time. I'm just checking in, maybe give you a couple of status updates.

MALE PARTICIPANT: Okay. Go ahead.

MR. CASTO: I think maybe I told you -- I can't remember exactly what all I told you, but the water drops don't seem to be effective. The dose rates were not altered at all. You probably already know that.

MALE PARTICIPANT: Yeah. We're watching them on TV, and I can imagine they are not being very effective.

MR. CASTO: Right. So, well, there were five pumps delivered to the site. We got that moving. They've accepted them, apparently, this time.

MALE PARTICIPANT: Do we know that they're at the site?

MR. CASTO: Yeah, they're at -- well, I've had the best confirmation you can when you're sitting here and you're not there, you know? But it's the best confirmation I have, according to -- no, I've got something else here.

MALE PARTICIPANT: Captain Corbett?

MR. CASTO: Yeah, Captain Corbett -- is that they are onsite, and they delivered at 11:30 our time, and, you know, they accepted them, so --

MALE PARTICIPANT: Now, is that the complete system?

MR. CASTO: No.

MALE PARTICIPANT: The drainers and everything?

MR. CASTO: No. I think that was just -- all they got was five pumps.

MALE PARTICIPANT: Yeah.

MALE PARTICIPANT: Chuck?

MR. CASTO: So they still don't have -- and, you know, their concern is -- and Marty and others I guess, you know, this -- this could be a logistical issue at this point now, less nuclear. The nuclear stuff is -- is -- you know, is --

MALE PARTICIPANT: (Inaudible.)

MR. CASTO: Yeah. The nuclear science of

this is not -- you know, it's just get water on it. You know, we are -- there is some debate about lead, and, you know, we've got all kinds of suggestions from industry people, non-nuclear industry people here in Japan, big corporations giving us advice, and, you know, dump nothing but boron on the core, the spent fuel pools, and, you know, a lot of people have got a lot of ideas.

But you can only do what you can do, so we're -- also, you know, try to figure out how to drop the dose rate, so that, you know, people can install pumping systems or whatever strategy we have, so, you know, we are really trying to work that out and trying to decide whether, you know, to put lead in there or to put, you know, sand or -- to get the dose rates down, the big question -- you know, you really don't want to put anything around the fuel so you can keep it cool, but what's left of it, or whatever is there, keep it coolable, but you've got to get the dose rates down. That's kind of the challenge now.

You know, we're thinking HUMVEE's for workers, you know, to transit in there to pipe -- and some shielding, some mechanism to shield the workers, but some of these -- you know, these are lethal dose rates they're getting outside that building.

MALE PARTICIPANT: Yeah.

MR. CASTO: So, you know, if there's some shielding mechanism, you can get people in there, or pre-modularize the pipes and climb in with an unmanned UAV to -- you know, and then go in and bolt it up, whatever. So I think that's -- you know, we're working with U.S. Forces Japan, working with DoD. So basically what I'm saying is that, you know, this is more of a -- this is more of a mechanical engineering and logistic issue at this point.

MALE PARTICIPANT: So Army Corps of Engineer type project as opposed to nuclear science.

MR. CASTO: That's at least my, you know, perspective.

MALE PARTICIPANT: What I was going to say is, have we -- have they made the decision to go with -- go with the pumping and the water vice going with sand or boron or, you know --

MALE PARTICIPANT: Clay or --

MR. CASTO: They are only -- they have one strategy -- helicopters with -- dropping water and riot cannons.

MALE PARTICIPANT: The media reporting -- the media reporting shows the water drops occurring on Unit 3. Is that your understanding?

MR. CASTO: Yes, that's their priority is Unit 3.

MALE PARTICIPANT: And why -- I guess when we came off this morning, John was on his way over to talk to NISA and TEPCO, and the reporting was there was no water in Unit 4, and that was the one that was on the top of our list. (Inaudible) putting 3 on the top of their list.

And then, I guess the other question, when you guys updated our two-pager and sent it back, you did not touch the one that said that Unit 4's pool was likely dry. Is that still your understanding? And what is driving, in their mind, 3 to be a priority versus 2?

MR. CASTO: The reason it would be the priority is because it's -- it was -- now it's not steaming at all. It was a priority because it was steaming heavily. They knew they were losing water level in it, because it was steaming heavily. So they wanted to get to that one, and they believed, through their helicopter flight and their vague, you know, non-descript images, that there was water in Unit 4.

MALE PARTICIPANT: Yeah. They believed there -- they didn't say it's covered, but they believe there is a decent amount of water in Unit 4.

The highest priority for them is Unit 3 right now.

MR. CASTO: We've looked, and our best estimate -- who knows who is right, you know? It could be partially whatever. I mean, you know, we don't know, and -- and our best guess -- our best estimate after looking at the imaging at 7:30 this morning is there is no Unit 4 spent fuel pool.

MALE PARTICIPANT: Right.

MR. CASTO: You know, that's our best -- from the closeup images that we have seen, our best -- I mean, you can't fathom that there is a spent fuel pool. If you see the amount of damage to that building --

MALE PARTICIPANT: Right. So we --

MR. CASTO: -- you can't fathom that there would be a spent fuel pool in there. I mean, that building is -- is structurally, you know, is damaged severely. And to think that there is a spent fuel pool in there, we think it's likely -- because it was steaming some, and it stopped steaming.

So to us that meant that it wasn't -- you know, that it had dried out, and, you know, so -- and it could be that its fuel is all over the building. You know, that it was part of the explosion, and they basically spread that fuel -- spent fuel all over the

inside of that building.

MALE PARTICIPANT: We were seeing similar images of the building when you guys were going off to talk to NISA and TEPCO, you know, 20 hours ago. When you came back from that, was that when -- was it at that meeting that you guys saw their images that they thought showed water in the pool?

MR. CASTO: Well, they took an image at 5:00 yesterday, which was almost 24 hours ago. It was 22 hours ago they took that image, that video, from a helicopter. They didn't show it to us until 10:00 this morning.

MALE PARTICIPANT: Okay.

MR. CASTO: Almost 12 hours later they showed it to us, and, you know, we looked at the video, and we can't -- you know, they see something they think is a reflection. I mean, you know, the shot is a long distance shot. You're looking through debris, and they said, "See, see, look, you can see the reflection there." I said, "I can't see crap in that photo."

And meanwhile, in the same video, a few feet away steam was, you know, coming out. So, you know, it looked like it was finishing the dryout phase of draining the spent fuel pool on 4, on Unit 4.

MALE PARTICIPANT: Yeah.

MR. CASTO: Or something was steaming there, you know. Who knows? It might have even been smoke. Who knows what that was? But, you know, it looks -- when you see the other closeups that [redacted] took, it looks -- you know, it doesn't look like that building hardly has any structural integrity to it.

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MALE PARTICIPANT: Right, right. We saw that. Let me ask you another question. Another thing that you didn't touch on our two-pager is where the Unit 2's primary containment is intact. We have seen some reporting on NHQ, news that had cited NISA saying that the primary containment Unit 2 was partially breached. What's your best understanding of that containment at this point?

MR. CASTO: Anybody know?

MALE PARTICIPANT: Unit 2?

MR. CASTO: Yes.

MALE PARTICIPANT: Unit 2 is (inaudible).

MR. CASTO: Yes. They breached a hole in the secondary containment.

MALE PARTICIPANT: Right.

MALE PARTICIPANT: We understand the secondary containment was intentionally breached to

vent.

MR. CASTO: Right.

MALE PARTICIPANT: But we had heard another report that said primary was partially breached.

MALE PARTICIPANT: Right.

MALE PARTICIPANT: I'm looking through my notes right now. My reaction from what we have heard is that they say that the primary containment is intact, from what we have heard, at Unit 2. However, with that said, I know, you know, at least some people on the team, there was a loud boom, there was a loud explosion, there was this loud sound in the vicinity of the suppression pool for Unit 2 a day or two ago.

MALE PARTICIPANT: Yeah.

MALE PARTICIPANT: So there are some people that do believe that they lost the primary containment on Unit 2 back then. I have to go exactly through my notes.

MR. CASTO: Yeah, I remember that. You know, who knows? I mean, you know, there is no way to get in that building and know what --

MALE PARTICIPANT: Yeah.

MR. CASTO: -- the condition is of --

MALE PARTICIPANT: Right.

MR. CASTO: -- primary containment.

MALE PARTICIPANT: I'm not sure if it really matters, to tell you the truth. I mean, the source term is, you know, orders of magnitude with or without Unit 2.

MALE PARTICIPANT: Yeah. I mean, it --

MALE PARTICIPANT: We want the status report to be correct. But in terms of consequences or whatever, I'm not sure if it really matters.

MALE PARTICIPANT: Yeah. No, I agree.

[redacted]

MALE PARTICIPANT: Yeah. We're struggling mightily on this end, so --

MALE PARTICIPANT: Yeah.

MALE PARTICIPANT: -- we relieve you of the --

MALE PARTICIPANT: I'm sure that's the

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case. I understand. So as we get embedded and their willingness increases, we'll get better and better information.

MALE PARTICIPANT: Right.

MALE PARTICIPANT: So Beck Foster (phonetic) just brought over the daily summary from NISA, who is the regulatory agency, on Unit 2 for the primary containment. Their bullet says, "The sound of explosion was main Unit 2. As the pressure in the compression chamber decreased, there was the possibility that an incident occurred in this chamber."

I mean, you know, there was an explosion, they say the pressure decreased, and that's all the information there is. You could conjecture that, you know, it caused primary -- you know, a hole in primary containment in the suppression pool or not.

MALE PARTICIPANT: But --

MALE PARTICIPANT: You know, I guess to be probably most accurate for the bullet, you know, it's questionable or uncertain. Is that fair?

MALE PARTICIPANT: I guess another area that we've heard that they are focusing energy on is trying to reestablish electrical power to the site. Do you have any information on what they are trying to

do and to what degree they have had success with that?

MR. CASTO: Yeah, Jack has that I think.

JACK: Yeah. We had a meeting with NISA today about 11:30 or so local time, and essentially what they mentioned is that they -- they actually have a diesel generator on Unit 5, which is supplying power to the central (inaudible) for 5 and 6. Okay? Because of the geographical differences, the distance between 5 and 6, and then 3 and 4, they said they are not able to get the actual power from 5 and 6 there to the rest of their site.

But that being said, there was (inaudible) discussion -- and (inaudible) can probably help me out with this -- but I understand that they have a generating company called Toho --

MALE PARTICIPANT: Tohuka (phonetic)

JACK: -- Tohuka, and they are actually doing work on the (inaudible) right now that is -- and coming into the wayward side of the Daiichi site to try and restore power.

Now, I asked -- one of the particular questions I asked was, "How long do you think it will take?" and they said, "TBD on that." So we are going to probably meet with them tomorrow and get a better understanding of when they will be able to restore

site power. I think that's a long-term fix here.

MALE PARTICIPANT: Well, what they -- in our meeting with the Ministry of Defense, they reported that today they are working on restoring power for Units 2, 5, and 6, and they believe that would occur today, and that tomorrow they would focus on Units 1, 3, and 4.

I mean, in my own mind, I'm not sure -- you know, I mean, so you have power to the site. I mean, but all of the switch gear and the --

JACK: Yeah.

MALE PARTICIPANT: -- breakers and --

JACK: Yeah. It's helpful -- it's always helpful to have power, but in this situation, with the radiation levels, you're not going to go in there and do any switching anyhow, but --

MALE PARTICIPANT: I mean, if they reenergize everything.

MALE PARTICIPANT: We will take care of that switch gear when we start pulling the water --

MALE PARTICIPANT: All right.

MALE PARTICIPANT: That's the other question we had is, why are they prioritizing that, so they have -- what confidence do they have that anything inside there is going to work if they have

power?

MALE PARTICIPANT: Yeah. Well, it can be used to power temporary things that we do, so it's always good to have power, and it's not diverting their resources in terms of the water.

MALE PARTICIPANT: Yeah.

MALE PARTICIPANT: Yeah. So, you know, it's okay to do. It's, you know, somebody else's doing and it's not -- it's not impacting the immediate mitigation.

I do have an e-mail here that I got from DITTRA (phonetic), and it is more than just five pumps. They actually delivered -- the status of site today, they delivered 750 feet of six-inch line, a tank, three -- two tanks, three high-head -- high-head, low-volume jet pumps, and diesel -- diesel-powered, and 100 more feet of line is being requested.

So they are pushing more than just pumps.

MALE PARTICIPANT: Yes.

MALE PARTICIPANT: They are pushing piping and other stuff as well.

MALE PARTICIPANT: And I think what we want to do on a separate bridge shortly is to get -- to get Tim Colvin and Debow (phonetic) -- Debow maybe on the line with Mike Case. He had called me, and I

know you guys are working the project pretty well. But at the same time, you know, resources are coming in. But I think somehow we've got to get a handle on the entire thing.

MR. CASTO: Yeah, that's why -- you know, my thinking that we talked a little bit about, you know, we really need to turn this piping system over to U.S. Forces Japan, and let them do it. And, you know, we just tell them what we need and let them do it, work with the Ministry of Defense.

You know, we are nuclear people. We can deal with -- we don't want to run -- we don't want to get diverted off the ball here. We've got other cores that are in jeopardy in containment, and, you know, let's just turn the logistics over to U.S. Forces Japan.

And, you know, because I've got -- you know, we've got you guys down there working on finding pumps and valves and all that stuff, and, you know, but it's helpful -- and we needed it at the time to kickstart, you know, what we were doing. We needed -- because we didn't have any other resources, but I can tell you that, you know, I just left the Ambassador, and, you know, we can get whatever we want. We don't have to do it. The NRC doesn't have to do it.

So, you know -- so as much as we can move towards getting DoD and MOD to do this, that would be great, and get the NRC back focused on the nuclear things.

MR. CASE: Chuck, this is Mike Case. We're aware of the pump. We're working with Bechtel and GE to sort of round out the parts and other things that we will need to make the pumps work, so we're working on that. We haven't got that information back from Bechtel, but when we get that back we'll get with you guys and start to work on next steps.

MALE PARTICIPANT: Okay, that's great.

MALE PARTICIPANT: So do you still want Seminole (phonetic) to give you a buzz or not?

MALE PARTICIPANT: Yeah, that would be helpful, John. That will catch up the rest of the team.

MALE PARTICIPANT: One other thing that TEPCO requested today was some type of project management help, like from day -- from today on, they would like somebody to give them some advice on how to get out of this situation, to help them plan this to get out of it. So is there anything we could give them help on there?

MALE PARTICIPANT: Again, I think that's a

DoD/U.S. Forces -- Japan Forces issue to project manage and logistics. Nobody knows how to move stuff in the Department of Defense. And I'm just telling you, they're just asking for our help --

MALE PARTICIPANT: Yeah.

MALE PARTICIPANT: -- if we can give them some help.

MALE PARTICIPANT: And we need to help DoD. We've got to help DoD tell them what we need, but we need to get DITTRA and -- who else am I thinking about? Yeah, and get everybody connected, even if it's on a bridge, you know, all the people that have a chop at this in one room and, you know, make sure that we've got the -- not duplicating effort as much as possible.

MALE PARTICIPANT: (Inaudible) after all that equipment gets there, somebody is going to be there to say, "Hey" --

MALE PARTICIPANT: Right.

MALE PARTICIPANT: -- "we're fine and we're (inaudible)."

MALE PARTICIPANT: Yeah, that's -- right. That's the other problem. We can't get them -- we can't get TEPCO and the government to actually install it. They asked for help installing it, and we're not

going to do that.

Okay. So Mike Case and Tim and them are going to get on that, and we'll get the DITTRA people here and everything -- was it Ron or -- Ron -- is Ron doing the DITTRA people?

MALE PARTICIPANT: Alexander, something Alexander.

MALE PARTICIPANT: So that -- so the DITTRA people -- so that would show on the phone.

MALE PARTICIPANT: He is my contact.

MALE PARTICIPANT: He reached out to -- I guess to DITTRA -- to the people on Joint Forces Japan --

MALE PARTICIPANT: Good.

MALE PARTICIPANT: -- and the guy named Jim Lynn from I guess the Joint Forces, he is currently meeting with the Ministry of Defense. But they're reaching out to him to have him --

MALE PARTICIPANT: Okay. That's great. That's awesome.

Yeah. One thing is, we would add Joint Forces Japan to our team. We would add a couple -- they have been asking to come up, and, you know, we gave them the green light to come up, and we would add them to the team. And then, we could take a couple --

like Tim and the Joint Forces people, and they could work all that issue on getting the piping --

MALE PARTICIPANT: Yes.

MALE PARTICIPANT: -- stuff together, so we'll set them off as a subgroup, Joint Forces and DITTRA. Tim will lead that effort, and then we can, you know, subdivide and keep our attention focused. Are we okay with that?

MALE PARTICIPANT: Yes.

MALE PARTICIPANT: Anybody --

MALE PARTICIPANT: Do we know that --

MALE PARTICIPANT: We have two direct contracts with DITTRA.

MALE PARTICIPANT: Right.

MALE PARTICIPANT: And that's the gentleman that I spoke with earlier. One of them is Captain Corbett, and the other one is Alexis Robinson.

MR. CASTO: And basically, the advice from the Ambassador was, you know, we -- even DITTRA and Joint Forces Japan and DoD were saying, "Hey, look, some of the stuff is over here in Japan."

[redacted]

[redacted]

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So if it means, you know, flying pipe over here that should be available in Japan, that's just the way it has to be. So we are proceeding to do it independently as the Japanese supply chain.

MR. MILLER: Chuck, Chris Miller. Do you know if -- I mean, do we have a good connection with the emergency offsite operations center that -- you know, that I think is the center that's running, you know, the priorities and moving logistics and is with -- and is tied in with our U.S. Forces Japan? Do we have a good link with them to know what their priorities are, so that we're not, you know, going after one set of things and they're going after another set?

MR. CASTO: No, Chris, we don't. And -- but, however, what we do know is they only have one

[redacted]

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And this morning, you know, our goal was

to get with the Ambassador and tell [redacted]

[redacted]

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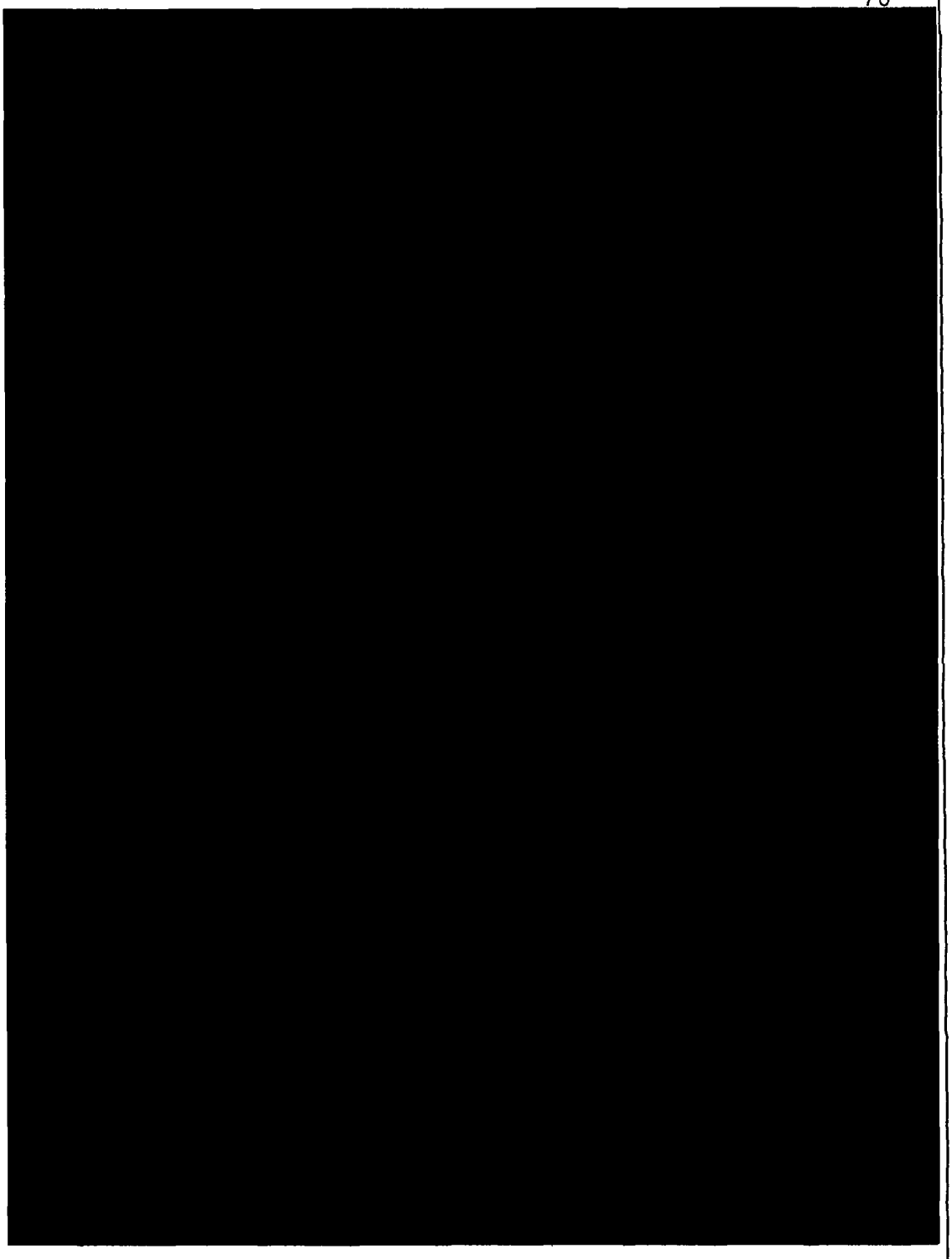

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And so our dilemma here is -- the challenge that we have is to try to keep the spent fuel pools in a coolable geometry, but yet reduce dose to the workers.

Now, whether that's the HUMVEEs, you know,

or some other mobile -- or build a shield, build a building, or some kind of shield out there that you can work behind to install the equipment, or dump lead on the top of the refuel floor, whatever you've got to do to drop dose so that -- they're just not willing to

[redacted]

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Now, what they're doing is they have

bulldozers -- I mean, the dose sounds like not as much a shine from the building as when the building blew up. There is spent fuel and pellets and whatever all over the place around the plant. So they are taking the bulldozers through and pushing the rubble in piles, and they are saying that's cutting the dose down, you know, 60, 70 percent.

So they are trying to -- in these areas where the piping runs would go, they are trying to clean it up. But, I mean, the dose is still going to be, you know, incredible. I mean, they were talking yesterday, they said the resources they have were somewhere between 2- to 300 people, and that, you know, TEPCO and other licensees, the Civil Defense Force and some -- some police. [redacted]

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[redacted]

MALE PARTICIPANT: Yeah.

MR. CASTO: All their people have to be burnt out by now.

MALE PARTICIPANT: Are they going up to 25 rem, do you know?

MALE PARTICIPANT: They've extended that, I think.

MR. CASTO: No idea.

MALE PARTICIPANT: I don't know. They asked us how we deal with extending dose, and we just told them for emergencies and a condition like this, we have guidelines that let us go to a certain limit. But in this case, you need to do what you need to do to get it done.

MALE PARTICIPANT: We saw some media reports yesterday that said that they were -- they had authorized going to 25 rem.

MALE PARTICIPANT: Yeah. Obviously, they need more -- they need more people to spread that around, so that people aren't getting in excess of 25 rem.

MR. CASTO: And they -- you know, not just for the pool cooling, but they talked about our personnel to, you know, be embedded with their personnel. And they said no. I mean --

MALE PARTICIPANT: Thank you, John.

MR. CASTO: -- you know, we're not going to do that.

MR. VIRGILIO: Yeah, right, right. I mean, but that's -- then, they need to get out and recruit more than the 2- to 300 people they have.

MR. CASTO: I think their challenge, Marty, is that they are using their military for the

tsunami recovery. You know, they are strapped with, you know, resources to do tsunami recovery, nuclear --

[redacted]

Now, you know, you can tell them that, and what -- you know, how that filters down.

MALE PARTICIPANT: Right.

MR. CASTO: It got the MOD's attention and they called us in and we had the big meetings, but -- but, you know, nevertheless, I mean, they've still got, you know, people to worry about, and they have a huge crisis up there in terms of, you know, all the things from, you know, hazardous material, deaths, all that that they're trying to deal with with their military.

[redacted]

[redacted] you know, so do you -- you know, so it's a terrible situation, and you evacuate, you keep people safe, and then we address this problem methodically, you know, without -- because it is probably already at its worst-case scenario, and maybe

stable.

You know, if there are rubble beds in there in the spent fuel pool, right now there is -- it doesn't seem to be getting worse. So it's -- you know, it's stable with regard to -- whatever the rubble bed is, we're not getting zirconium fires that we can tell or, you know, anything -- it's always --

MALE PARTICIPANT: Right.

MR. CASTO: It's stable where it's at, so, you know, you get the people away, and then, now, okay, let's methodically, you know, without just running the military in there to kill people, just to, you know, make us feel like we're solving the problem, you know, so we're -- you've got to kind of take it slowly. You know, let's get the people out of the way. Now, let's, you know, methodically go through this and, you know, without a lot of loss of life.

MALE PARTICIPANT: Right, right.

MR. CASTO: So that's my -- you know, that's just my perspective. I don't know. I can empathize with them, you know, and that is huge. I mean, it -- I mean, I can't go through all this stuff. We just went to the compound, the Embassy compound, to talk to the Ambassador, and he is talking to all the dependents, you know, and they just authorized the

evacuation. They've got charter flights out of here. You know, we are moving aircraft carriers.

The alliance is concerned, because the -- if they move the Essex (phonetic), you know, it is supposed to be dedicated to the alliance, and, you know, but there were -- you know, so -- I mean, this government has got tremendous, tremendous, I mean, unfathomable challenges. It's just -- the spent fuel pool isn't -- you know, this is important, but I'm not sure that it's their -- you know, it's their number one.

If they get the people away from it, right, you protect the people and then you methodically -- but, you know, they are bringing ships in here to take people out. They are -- you know, charter flights are, you know, a dime -- you know, every 15 minutes or something getting out of here.

The dependents, you know, we were over there listening to them, waiting on the Ambassador to talk -- brief him. And, I mean, there was a lot of angst and concern, and there is, you know, so --

MALE PARTICIPANT: How many people are they moving under the voluntary authorized departure?

MR. CASTO: Oh, it's a lot of people. It's -- yeah.

MALE PARTICIPANT: We're talking (inaudible).

MALE PARTICIPANT: Orders of magnitude.

MR. CASTO: Yeah, it's a significant amount of people, and they have -- and they have authorized all Americans to go on the charter. So they have taken half the flights and have Embassy dependents -- well, no, each flight -- I don't know how to say it. Now I'm starting to get tired. Each flight is reserved -- half reserved for Embassy dependents, the other half of the flight is for American citizens.

MALE PARTICIPANT: Right.

MR. CASTO: Okay? So they're pumping those, but they're worried because, you know, they may get grounded eventually, because of -- because of, you know, radiation. They are worried about radiation. Commercial air carriers are trying to make the decision whether they are going to stop their flights.

And if they do, then that puts more pressure on the charter flights to get people out. I mean, these people have got -- it's hell over here for that government. I mean, it's just absolutely hell. And I know we get frustrated with them, but, man, when you think about what they're faced with, it's

absolutely unfathomable.

When you've got a thousand dead bodies washing up on the shore, you know, it's -- you know, these people -- I don't know, I mean, we -- you know, we think we'd be prepared for it, but it's -- this is -- it is tough for them, and we're over here barking at them about -- and I want to do it, don't get me wrong. I'm not trying to -- but, you know, we do have to be a little patient. They're working hard, and they have a lot of challenges, and, you know --

MALE PARTICIPANT: And we're here to help them.

MR. CASTO: So we're going to try to do this independently. And if they don't -- you know, if in the end we build a bunch of systems to pump water, and they don't want them and we can't install them, well, what can we say, right? We wasted time and money, but, you know, we tried to do something to help them out. And if it doesn't work, and it's a waste of time, then so be it.

MALE PARTICIPANT: Right.

MALE PARTICIPANT: Chuck and John, what was the basis, John, for your statement at -- that you believe there are spent fuel pellets on the ground of the property?

JOHN: Because they gave us the dose rates of, what, 20 to 30 rem per hour? And they said, you know, the dose rates go down 70 percent when they bulldoze the --

MALE PARTICIPANT: Debris.

JOHN: -- debris out of the way. Well, you don't get 20 rem from contamination on the side of the spent fuel pool. It's got to be fission product. I mean, you know, you have -- so how did the explosion occur?

The spent fuel pool had to be at least 20 percent, 10 percent level, whatever. You had a significant zirc oxide reaction, all of these -- all this hydrogen, and a massive explosion. And what's right below the explosion? There's no body of water. You've just got all of that spent fuel pool that's, you know, 2,000 degrees plus just baking there.

I mean, you know, how can you think you'd blow apart, you know, girders and seals and everything else, and these little delicate spent fuel bundles that are 2,000-plus degrees are going to stay intact? I mean, that doesn't make sense. You blow out concrete walls and beams, and the structure of the building is blown up. You've seen images.

MALE PARTICIPANT: Yeah, yeah. I mean --

MALE PARTICIPANT: No, I've seen those images. I mean, I guess I was just asking -- that's more your logic than something that you've been told by anybody else.

JOHN: They haven't said it's fission products or pellets in the parking lot. But, I mean, it's got to be.

MALE PARTICIPANT: The purpose of the bulldozing, is that -- I don't understand. Is that just to reduce the radiation, or are they --

JOHN: Well, they --

MALE PARTICIPANT: They want to get the riot truck in there.

MALE PARTICIPANT: Yes.

MALE PARTICIPANT: Oh, okay.

JOHN: Well, they say it's to clear the debris, so they can get the fire trucks, the riot trucks, the water trucks, et cetera. I think it's -- some of it is debris, but I think it's to significantly move the dose out of the way.

MALE PARTICIPANT: Right.

JOHN: Move the fission products, move the pellets, move whatever.

MALE PARTICIPANT: So this goes back to what you said earlier about their strategies right now

being the helicopters and the water cannon.

MR. CASTO: That's it.

JOHN: But they are using the bulldozers, or at least that's what they told us yesterday.

MR. CASTO: Yeah. That gets them the water cannons in there.

MALE PARTICIPANT: Right, right. Okay. I was thinking that maybe they had already developed a strategy for assembling the pipes and pumping. But it's really about the water cannon.

MR. CASTO: You know, Marty, one of the things that occurred to us was that for learning and something that might be able to help us -- we're not certain -- this could be a complete waste of time -- is to have somebody fly over one of our BWR-4s that -- in an outage, and take a picture of -- [redacted] the reactor and the spent fuel pool.

MALE PARTICIPANT: So a [redacted] image.

MR. CASTO: Or some kind of [redacted] image, even if they have to fly [redacted] over it. But, you know, it might help us look at -- well, right now what we're doing is we're taking a schematic of the reactor building and overlaying it on the [redacted] that we have to try to see, you know, what -- you know,

does that [redacted] somewhat take the shape of the spent fuel pool and the reactor?

MALE PARTICIPANT: So whenever those [redacted] 5

you would want, you know, to do some -- if you want a good comparison, you would want a very similar thing done for, you know, whatever Mark 1s are shut down in the refueling outage here. I mean, an operating plant you don't want, because, you know, you can have all the (inaudible) to operate. You want a unit that is shut down.

MALE PARTICIPANT: So the thought is you are going to use this information and whatever else you can to convince them that the pumping strategy is a strategy they may choose over what they've got.

MR. CASTO: Yeah. You know, we -- I think what we're trying to do is characterize what's inside the buildings.

MALE PARTICIPANT: Yes.

MR. CASTO: You know, and that's -- using [redacted] 5

MALE PARTICIPANT: Right.

MR. CASTO: -- you know, comparisons,

whatever, we can devise a better strategy. The pumping strategy may not be useful at all if there is no spent fuel pool, and there is just a rubble bed in there somewhere. Then, what have you got? There's nothing to pump.

MALE PARTICIPANT: Even beyond that, it's -- that could be used to demonstrate the success of the pumping system.

MR. CASTO: System, right, yeah.

MALE PARTICIPANT: If we had a [redacted] signature of a reactor that was intact, and a spent fuel pool that was intact, and we compared that against before and after the pumping evolutions, we can have --

MR. CASTO: Tell what the [redacted] So it's just more information, comparison information. It may or may not help, because the other problem you've got is, you know, any BWR-4 Mark 1 containment you have, you've got a reactor building on top of it. You know, you've got a reactor building roof.

So what would the [redacted] image do, because you've got the reactor building roof on there. You know, so would it be useful at all? I don't -- we don't know. We are just, you know, taking people's

advice and suggestions and taking up some of ours and yours and trying to, you know, do the best we can with the information we have.

MALE PARTICIPANT: We know that the AMS actually did some flyovers. I don't know if they -- did they fly over the plant?

MALE PARTICIPANT: No, no, no.

MALE PARTICIPANT: Okay.

MALE PARTICIPANT: They won't fly into the (inaudible), but they get close to it.

MALE PARTICIPANT: Okay.

MALE PARTICIPANT: So that's useful in helping us develop a strategy for --

MALE PARTICIPANT: We're not going to know until we see what they give us --

MALE PARTICIPANT: Yeah. But if they didn't fly over the plant, they're not going to help us with our site path.

MALE PARTICIPANT: No.

MALE PARTICIPANT: Did we ask for (inaudible)?

MALE PARTICIPANT: I'm not sure.

MALE PARTICIPANT: Jerry, where did you get your data? You said you were developing a map of the site.

JERRY: We got it from the Federation of Electric Power Companies of Japan.

MALE PARTICIPANT: Yeah, look at that. That's the best we could do.

JERRY: They're here in Washington, but they've got data that they are getting from -- it looks like --

MALE PARTICIPANT: Did Chuck have this map?

MALE PARTICIPANT: No, we just -- we just --

FEMALE PARTICIPANT: (Inaudible.)

MALE PARTICIPANT: -- to gather information on --

MALE PARTICIPANT: We put this together from -- that came from a news report of --

MALE PARTICIPANT: (Inaudible.)

MALE PARTICIPANT: -- dose rate from the helicopter that did the water dump.

MALE PARTICIPANT: Okay.

MALE PARTICIPANT: And it was just over --

MALE PARTICIPANT: Chuck, we're just --

MALE PARTICIPANT: Do you understand what we're looking at now?

MR. CASTO: No, we were having our own

side conversation --

(Laughter.)

-- while you guys were having yours, so I'm sorry. I apologize.

JERRY: Chuck, this is Jerry.

MR. CASTO: We listened to you, really, seriously.

(Laughter.)

JERRY: Nothing has changed.

(Laughter.)

MR. CASTO: Go ahead.

MALE PARTICIPANT: Jerry wants to explain what --

MALE PARTICIPANT: Well, Chuck, we don't -- we got the best we could. We received this unsolicited document titled from the Federation of Electric Power Companies of Japan, FEPC, Washington, D.C. Office. And it has a -- whether it's valid or not, we don't know, but it has detailed rad measurements associated with each of the reactors and buildings.

And we have taken that text, to the best of our ability overlaid it on a map of the site, and we just finished that about 10 minutes ago. And we're going to discuss it with the ET and get it to you.

MR. CASTO: That's great. I think -- we have the data, and do we have the map of the -- do we have the map that they just did?

MALE PARTICIPANT: No, we do not. We just generated it.

MR. CASTO: Okay. We have something here that is similar I guess, but --

MALE PARTICIPANT: We're not translated, so if they have it in English in electronic --

MR. CASTO: Okay.

MALE PARTICIPANT: -- they should send it.

MR. CASTO: Okay. Yeah, we have it in Japanese.

MALE PARTICIPANT: It's not -- it's really the -- if it's at all correct, it's not that untimely. It's as of --

MALE PARTICIPANT: March 16th.

MR. CASTO: What's it showing, Terry? What's the bottom line?

MALE PARTICIPANT: We (inaudible) this morning, and right now it's 2:00 in the morning, the next day.

MR. CASTO: What's the bottom line? What's it saying? What's it telling us?

MALE PARTICIPANT: It's telling you you've

got 40 rem, 10 rem, you know, I --

MALE PARTICIPANT: (Inaudible.)

MR. HESTA: I'll tell you, between the buildings it looks like -- and this is Greg Hesta, no relation, I don't think. But we --

MALE PARTICIPANT: But smarter and good -- better looking.

(Laughter.)

MR. HESTA: Yeah, I don't know. We've got between 30 and 40 rem between the buildings, 30 rem between Units 2 and 3, 40 rem between Units 3 and 4. We've got what appears to be a 10 rem per hour line along the roadway that is just west of the unit, I'm guessing. We have --

MR. CASTO: Okay. So 32 -- I mean, in a sense it goes back to John's argument. This stuff is spread everywhere.

MR. HESTA: Yeah. I mean, that's not from contaminated steel inside --

MALE PARTICIPANT: Well, it could be.

MALE PARTICIPANT: This could be reinforcement.

MALE PARTICIPANT: Remember, that was a plume that --

MALE PARTICIPANT: (Inaudible.)

MALE PARTICIPANT: John, the first 40 rem numbers we saw were well before the explosion in Unit 4, and the supposition at the time was that this was -- was shine from green pools (phonetic).

MALE PARTICIPANT: And it's -- okay. Yeah. But when they tell you the dose decreases 70 percent when they bulldoze the crap out of the way, but --

MALE PARTICIPANT: Well --

MALE PARTICIPANT: -- well, there could be some gross deposition to the west of the plant. There was a plume that migrated that way over the past two days, so there could be some gross deposition.

MALE PARTICIPANT: Deposition, but you're talking between two units.

MALE PARTICIPANT: Yeah.

MALE PARTICIPANT: Aren't you?

MALE PARTICIPANT: That deposition is a little bit downwind?

MALE PARTICIPANT: No, that probably -- that's probably a contribution of ground shine between the two units.

MALE PARTICIPANT: So in terms -- so -- not to play devil's advocate here, but you had a pool that was probably fully drained, fuel that's several

thousand degrees, a massive explosion, and we think nothing is happening to the rods or the pellets in that explosion.

MALE PARTICIPANT: No, we aren't saying that. But it's just where it is. You can get dose outside from deposition, you could get dose outside from shine, or a contribution --

MALE PARTICIPANT: Right.

MALE PARTICIPANT: -- of both. You could get dose outside from spreading material, whether it's fuel pellets or other stuff. And you can get --

MALE PARTICIPANT: I also remember that there's other stuff stored in the spent fuel pool.

MALE PARTICIPANT: Right.

MALE PARTICIPANT: The old days of cobalt roller balls from the control rod blades, you (inaudible) and stored in buckets.

MALE PARTICIPANT: Right. Fission products that collect along the wall inside the reactor building, blowing outside the reactor building, anything is possible. A 40 rem dose on a smear is something you can't find in a operating powerplant, or you used to in the spent fuel, so --

MALE PARTICIPANT: The question is, though, you know, I mean, is the point of the

discussion to say we think all the fuel is still in the reactor? Or it's --

MALE PARTICIPANT: I don't think it matters. I mean, that's --

MALE PARTICIPANT: The purpose of this exercise is just to give them an idea for them to strategically lay the pipe. I mean, that's the -- so I don't think it's really -- we really need to dicker over whether it's fuel pellets or whatever the source is. The purpose is to give them an idea of the best route to lay the piping.

MALE PARTICIPANT: That's right.

MALE PARTICIPANT: You know, and along those grounds, one of the major requests that we had this morning at the Ministry of Defense is, you know, any and all robotics that we have with dose set, with dose measurement, with video cameras, et cetera, they want to be able to road map the site and the buildings, et cetera, so they can come up with pathways for their employees to go to minimize dose.

MALE PARTICIPANT: Has that request gotten to U.S. Forces? Because, I mean --

MALE PARTICIPANT: No. I mean, it just came to us from the meeting with the Ministry of Defense today.

MALE PARTICIPANT: I'd get that one to USFJ because I would think they'd have robotics. And I'm not sure in terms of --

MALE PARTICIPANT: I mean, all the national labs have it, that kind of stuff. I mean, we would typically give the request to you guys, and then you would then send it out.

MALE PARTICIPANT: Yeah, I would --

MALE PARTICIPANT: I mean, now we're not -- I think the pathway for these requests, it comes into us and we give --

MALE PARTICIPANT: I figure it goes back to Tim's issue about they have asked for project management --

MALE PARTICIPANT: Right.

MALE PARTICIPANT: -- and, you know, we need it, because we are -- we are doing things here, because we are in proximity to DITTRA and the U.S. Forces, and, you know, we can just go up to the Ambassador's office and there is the head of everybody up there.

MALE PARTICIPANT: Right.

MALE PARTICIPANT: You know, and so we are working things, and you guys are working things, and, you know, we somehow -- and soon, if we get a couple

of U.S. Forces people here on our team, that will help us with the Ministry of Defense. So we just need to get some kind of project management going on that, you know, is my suggestion. Marty, I don't know if --

MALE PARTICIPANT: Right.

MALE PARTICIPANT: -- area or somebody, you know, but you need to get some subgroups that are working on that.

MALE PARTICIPANT: So you guys are thinking that the best role would be you guys deliver the needs to us, and then our team works with our liaison to get -- find out who is going to meet that need? Is that how you would --

MALE PARTICIPANT: I think we have to work together, because you're going to have a couple of U.S. Forces people working with the Ministry of Defense and other people.

MALE PARTICIPANT: Right.

MALE PARTICIPANT: They are not going to want to call the -- or come to us and call the headquarters operations center --

MALE PARTICIPANT: Right.

MALE PARTICIPANT: -- to get -- because these guys are going to be the U.S. military.

MALE PARTICIPANT: Right.

MALE PARTICIPANT: And they are going to go directly to their links --

MALE PARTICIPANT: Right.

MALE PARTICIPANT: -- and get stuff.

MALE PARTICIPANT: I mean, once we have those people positioned in our team, yeah, they will be able to do it. But right now, we don't have a liaison team, we don't have connections with the Department of Defense and all of these things established. I think the way it currently is is headquarters has all of those connections and reaches out to the broader government.

So, I mean, once we have just people from U.S. Special Forces Japan with us, you know, we can (inaudible). But as of now, you know -- you know, we don't have the telecommunications, we don't have the contacts to --

MALE PARTICIPANT: So now we have a tasker to go out and look for robotics, project management skills.

MALE PARTICIPANT: I mean, there is the request for the [redacted]

MALE PARTICIPANT: Here is what I would

suggest is is that we get a liaison team that consists of you guys --

MALE PARTICIPANT: Right.

MALE PARTICIPANT: -- and somebody off of this team --

MALE PARTICIPANT: Right.

MALE PARTICIPANT: -- who will reach out to the U.S. Forces people that have come on this team, or the Ministry of Defense, and work as a group to make sure that we are coordinated and organized, and figure out who gets what tasking, because like the [redacted], there is no point in us telling you that we want [redacted] when we've got U.S. Forces sitting right next to us.

MALE PARTICIPANT: Right, right.

TOM: This is Tom (inaudible). I'm the liaison team director. Who do you want me to work with on your team?

MALE PARTICIPANT: Tim Colvin.

TOM: Got it.

MALE PARTICIPANT: And when the U.S. Forces people get here, you know, we will have -- Tim will coordinate between the Ministry of Defense and the U.S. Forces people, and the NRC headquarters operations officers, and you guys.

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MALE PARTICIPANT: We'll get --

MALE PARTICIPANT: And you'll be the point of contact for all of that. And we -- if you could support him, or let's let U.S. Forces and Tim decide who does the project management, you know, keeps track of the request, keeps track of what is moving where, you know, status updates, all of that logistical -- I mean, the best logistical people are DoD people, right? So we'll get -- you know, hopefully, they will be able to give us a project manager from DoD.

MALE PARTICIPANT: Okay.

MALE PARTICIPANT: So we can -- you know, timing of equipment, what kind of equipment, keep a punch list of what is needed, all that stuff. So we've got Tim and U.S. Forces Japan. Are we okay with that?

MALE PARTICIPANT: Yes. Make a plan for that and work through USAID for the --

MALE PARTICIPANT: I will contact the liaison team once I get the couple of contacts lined up here at -- down here and we'll get together on a phone call.

MALE PARTICIPANT: We offered and reached out I guess through the Embassy here already to U.S. Special Forces Japan to have at least one person, you

know, on our team to --

MALE PARTICIPANT: I think they are going to send two.

MALE PARTICIPANT: Yes.

MALE PARTICIPANT: Because they want to do 24/7, and they want -- they've been wanting to send two people, and that was yesterday, and we didn't really -- you know, we didn't really warm up to that idea until today. Now we realize, yeah, they're right, they need to come in and help us.

TOM: This is Tom (inaudible) again. Is there somebody from USAID that you are connected with?

MALE PARTICIPANT: There is a USAID officer here that we are connected with who is -- by the way is very effective, and so we can get USAID -- I'll have Tim get with U.S. Forces and USAID.

MALE PARTICIPANT: Okay.

MALE PARTICIPANT: To get a team together in conjunction with you guys.

MALE PARTICIPANT: Yeah.

MALE PARTICIPANT: And then we can figure out what role we have -- what roles and responsibilities and project management.

MALE PARTICIPANT: All right. Because we want to make sure we're aligned.

MALE PARTICIPANT: All right.

MALE PARTICIPANT: Yes, right. So Tim is leading that effort.

MALE PARTICIPANT: Got it.

MALE PARTICIPANT: Okay?

MALE PARTICIPANT: And Tim has got his Blackberry, right?

MALE PARTICIPANT: Yep.

MALE PARTICIPANT: Okay. We'll be using that at least initially.

MALE PARTICIPANT: All right. And sorry to wake you guys up.

MALE PARTICIPANT: That's okay. I was just wondering, what else is on your list? Do you think they've got enough dosimetry?

MALE PARTICIPANT: That was on the request that we sent yesterday I think, last night, back to the HOO (phonetic). There was a two-page list, and I think on that list was a -- was dosimetry.

MALE PARTICIPANT: Do we know where (inaudible)?

MALE PARTICIPANT: It came from TEPCO.

MALE PARTICIPANT: That two-page list is not something I saw. None of us got any turnover on the two-page list. I think --

MALE PARTICIPANT: Yeah, it was about 10:00 last night we sent it in, we thought. We can send it -- we'll send it again.

MALE PARTICIPANT: Yeah, please do. And make sure that it's on the liaison team, LI --

MALE PARTICIPANT: And some of it's OBE, but -- and we might be able to cross off. But one of the things, they wanted survey meters and decontamination equipment, and some of this is OBE. And, for instance, they asked for environmental monitoring, which we already got.

FRMAT (phonetic) is already there. They are asking for protecting clothing, charcoal mats, socks, shoes, gloves, generators. I mean, there's a whole list, two lists of stuff -- robots, all that stuff. I thought, you know, maybe we had a breakdown, but we thought we checked this in last night.

MALE PARTICIPANT: Yeah. Actually, now that -- some of that equipment you mention on here I did see. All right? We do have that.

MALE PARTICIPANT: If you wanted to send the list to LIA-07, that's our liaison team, and she will forward that out to the rest of the team, so we all know that we got the same list. But LIA-07.

MALE PARTICIPANT: On the --

MALE PARTICIPANT: If you want to cross off what has already been taken care of, or no longer needed, that would be helpful to us, too.

MALE PARTICIPANT: Yeah, yeah.

MALE PARTICIPANT: Updated list, okay. Thank you.

MALE PARTICIPANT: Okay, guys. Hey, thanks. You guys can get back to (inaudible) or whatever it is.

(Laughter.)

MALE PARTICIPANT: Correction on that e-mail.

MALE PARTICIPANT: Hey, Chuck, let -- go ahead.

MALE PARTICIPANT: LIA-07.

MALE PARTICIPANT: Let's be accurate. Yep, that's --

MALE PARTICIPANT: LIA-07.

MALE PARTICIPANT: 07.

MALE PARTICIPANT: She is going to send you a test e-mail, so you'll have that.

FEMALE PARTICIPANT: (Inaudible.)

MALE PARTICIPANT: And it's where the status update will be coming from. If you look at your status update, that's the same e-mail that that's

coming from.

MALE PARTICIPANT: Chuck?

MALE PARTICIPANT: I think we're -- you know, we are going to probably have a team meeting next, and it looks like we've got a few minutes -- we've got a little bit of time here until the next crisis to catch our breath.

So we're going to figure out what we need to do about people, and, you know, they -- they will -- I think we stood down for a couple of hours last night and they were not happy about it, so I've got to make sure we've got somebody here.

MALE PARTICIPANT: Okay.

MALE PARTICIPANT: So I think someone -- you know, from 5:00 until -- I got here at 4:45 or something like that. But from 3:00 to 4:45, there was about an hour and 45 minutes I don't think there was anybody here. John left at 3:00 --

MALE PARTICIPANT: We left about 3:30, yes.

MALE PARTICIPANT: Yeah, and I got here like 4:45, and they were like, "Where have you guys been?" You know, so we've got to make sure we have 24/7 coverage.

MALE PARTICIPANT: Break it up into

shifts.

MALE PARTICIPANT: Hey, Chuck, is that --

MALE PARTICIPANT: The bad part was it was just -- you know, everybody had flown in yesterday, and it was --

MALE PARTICIPANT: Hot.

MALE PARTICIPANT: Yeah, we were all tired.

[redacted]

MR. VIRGILIO: Yeah.

MALE PARTICIPANT: Yeah.

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MR. VIRGILIO: So he's got that now, obviously. Is there any other things that he believes he needs?

MALE PARTICIPANT: You know, he needs us to get water up there is what his priority is for us.

MR. VIRGILIO: All right.

[redacted]

MALE PARTICIPANT: Yeah.

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MALE PARTICIPANT: All right.

MALE PARTICIPANT: Now, how are they dealing with the rest of the Americans? You said half of the flights are reserved for Embassy personnel, and the other half for U.S. citizens that are there in Japan.

MALE PARTICIPANT: Right.

MALE PARTICIPANT: Do you have any insights as to -- there was a set of Qs and As that was developed by the White House, and basically it says that, you know, U.S. citizens need to make their own decisions.

MALE PARTICIPANT: Yeah, that's right. It's voluntary, so they're making their own decisions. However, the government, the U.S. Government, is making charter flights available as much as they can.

MALE PARTICIPANT: They're giving them per diem and lodging --

MALE PARTICIPANT: No, that's for the dependents. Yeah, he is -- Marty is talking about other American citizens here.

MALE PARTICIPANT: Okay.

MALE PARTICIPANT: Yeah. They're making flights available to the other people who just want to call in and sign up. And, I mean, it's incredible.

You can actually see people, particularly Embassy people, right outside the Embassy here there is -- the sidewalks are full of people with suitcases.

MALE PARTICIPANT: Right.

MALE PARTICIPANT: You know, they're getting the hell out of here, to be frank about it, and --

MALE PARTICIPANT: For the (inaudible) that are not tied to the Embassy, are they getting a free ride home, too?

MALE PARTICIPANT: Yeah.

MALE PARTICIPANT: Oh, good.

MALE PARTICIPANT: Yeah, and that -- you know, half of the plane will be people -- no, I am sorry. I'm not right about that, I apologize.

MALE PARTICIPANT: Full fare for --

MALE PARTICIPANT: Yeah. They have to pay full fare economy class. Yeah, that's right. I'm not right. They aren't getting a free ride home. They're paying full fare economy class.

MALE PARTICIPANT: Which you said is not going to be a bargain, but there is no ticket that they're going to find out there commercially.

MALE PARTICIPANT: Right, right.

MALE PARTICIPANT: So this gives them a

reserved seat if they get moving.

MALE PARTICIPANT: Okay. Thank you.

MALE PARTICIPANT: Okay. Thank you.

MALE PARTICIPANT: Thanks.

(CONFERENCE CALL INITIATED)

MR. VIRGILIO: This is Marty Virgilio. Hello?

MALE PARTICIPANT: Brian, are you there?

BRIAN: I am, and I've got you on the speakerphone here in our ERC. We've got a small team assembled.

MR. VIRGILIO: Great. This is Marty Virgilio, and we're on a speakerphone, too, in our ops center. And we're just following up to try to reestablish a connection.

I talked to [redacted] yesterday evening, and, you know, [redacted] reiterated his commitment to supporting us in this effort, and, you know, reminded me that, you know, you all have the availability of resources from the powerplant's utilities. And we just got a shopping list from our team in Japan, and we will start coordinating with you on that to see if there is anything on the list that you all might be able to provide.

MALE PARTICIPANT: Okay. And we have been fielding the requests coming back through us from the folks at Tokyo center. I'm not sure if there's overlap on those lists or not, but go ahead.

MR. VIRGILIO: Yeah. We're not -- go

ahead. We can fix this to you or e-mail it to you. Which would be your preference?

MALE PARTICIPANT: E-mail would be preferred.

MR. VIRGILIO: Great. And can I get an e-mail address, please?

MALE PARTICIPANT: Yes. We'd prefer you send it directly into the emergency response center, and that e-mail would be -- I guess it's all lower case, inpoerc. Let me spell it phonetically that's India, November, papa, Oscar, echo, Romeo, Charlie at inpo.org, O-R-G.

MR. VIRGILIO: I-N-P-O-E-R-C at I-N-P-O dot org.

MALE PARTICIPANT: That's correct. Again, that's India, November, papa, Oscar.

MR. VIRGILIO: Understand. And we'll get this list to you shortly.

MALE PARTICIPANT: (Inaudible.)

MR. VIRGILIO: Fred, there was another issue, and that was that when I talked to [redacted] he also expressed an interest in providing support to our team in terms of having an individual from INPO embedded in our group over in Japan.

MALE PARTICIPANT: Okay.

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MR. VIRGILIO: And we talked to the team lead, Chuck Casto, and he is pretty enthusiastic about that notion. And so what I think we need to do is have a followup conversation between you and Chuck as to what skill sets you have available, and how does that match his interests and needs?

MALE PARTICIPANT: I think that would be appropriate. I know in my turnover, you know, there is discussion that we are going to be supporting the WANO/HUKIO (phonetic) center. That sounds different --

MR. VIRGILIO: Yes.

MALE PARTICIPANT: -- from what you've described.

MR. VIRGILIO: Yes, it is. And [redacted] -- yes, it is very different.

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MALE PARTICIPANT: Yes. So a good rundown of the skill sets that you are looking for, and then we can take that back to our folks and, you know, do a followup with you just as quickly as we are able. And it may not be, you know, within minutes. It may be hours.

MR. VIRGILIO: Oh, that's fine. I mean, you know, this is -- I mean, we are going to be in there for a while, so we will --

MALE PARTICIPANT: Do you have (inaudible) connect in with Jeff?

MALE PARTICIPANT: Well, how about if we send Jeff an e-mail asking for the skill sets and a copy of INPO (inaudible).

MALE PARTICIPANT: That would work, and then, you know, we will get it to our resource folks and run it from there. We are soliciting through the organization, just to kind of get a better pulse of what skill sets we, you know, have -- we would be able to provide.

MALE PARTICIPANT: Yeah, we independently got a message from from Mike Slobadin (phonetic) that said, "Hey, I -- I'm here to help if you need somebody that has TMI experience." And so we pointed him your way, so you may have several other people that have offered their services in that direction.

MALE PARTICIPANT: Okay. Well, yeah, send that, and we will -- we will get back to you, you know, just as soon as we have got something to give you.

MALE PARTICIPANT: And it occurred to me on point 1, if you look at the list that we're faxing you and you determine that you are already working on some of the stuff on that list, it would be useful

information to us, so we don't go to try to duplicate that somehow.

MALE PARTICIPANT: Yeah, it would. And as soon as we get that e-mail, we'll take a look at it, compare it with what we've got in the works, and we can get that answer back to you, you know, in minutes.

MR. VIRGILIO: Okay. And the third thing was that when I talked to [redacted] he offered to try to get us better access through INPO to TEPCO. And I don't know what ever became of that, but he was going to make some phone calls. 6

I understood that the head of WANO was in Atlanta, and he was going to be talking to him, and that he said if that doesn't provide us access that he [redacted] -- was going to contact INPO in Tokyo to see if he could get us better access to some of the information that WANO was getting from TEPCO. 6

MALE PARTICIPANT: Okay. So I understood what you said, not crystal clear what action you need me to take right now.

MR. VIRGILIO: Well, I don't know that it's immediate, but maybe in the morning to have somebody, when you turn over --

MALE PARTICIPANT: Okay.

MR. VIRGILIO: -- to touch base with [redacted] 6

[redacted] and see if he was able to get any in-roads with -- with WANO and TEPCO.

MALE PARTICIPANT: Yeah. And, again, in my turnover there is -- there are some things going on down in WANO, but I'm not -- I'm not completely up to speed on just what they are.

MR. VIRGILIO: Okay.

MALE PARTICIPANT: And it may be -- it may be, you know, sort of addressing some of your desires. I don't know that. But we will -- we will pass that on, and we've got a member of our senior leadership team coming in here shortly, and we will share that and leave that as an issue that needs to be resolved.

MR. VIRGILIO: Great, thanks.

MALE PARTICIPANT: Now, what is -- other than an e-mail back, what is our best contact for you folks?

MALE PARTICIPANT: I would come into the headquarter operation.

MALE PARTICIPANT: Yeah, 301-816 --

MALE PARTICIPANT: 301-816 --

MALE PARTICIPANT: -- 5100.

MALE PARTICIPANT: -- 5100.

MALE PARTICIPANT: That's our operations center.

MALE PARTICIPANT: Okay.

MALE PARTICIPANT: And that's 24/7, so you can get back to us like that.

MALE PARTICIPANT: Okay. So just go to the -- just go right back to the operations center and work it from there.

MALE PARTICIPANT: Yes.

MALE PARTICIPANT: Yes, Fred, what they'll do is you'll get into the operations officer, and just tell them you want to talk to the executive team and they'll patch you through to me, and I'll put you up on the bridge.

MALE PARTICIPANT: All right. So we will call the headquarters number and ask to get back to the executive team.

MALE PARTICIPANT: Right. And then, the e-mail, you will have that as well with the liaison team e-mail, but you will get it when you get our fax, or our e-mail rather, of the list. Okay?

MALE PARTICIPANT: We'll be looking for that. Gentlemen, is there anything else?

MALE PARTICIPANT: No, that's about it.

MALE PARTICIPANT: Okay. So let me just kind of recap. We've got our eyes out for an e-mail list of equipment that is needed. We will work that

against our list to see what is in the pipeline and take that for action as appropriate. We will look for the e-mail listing, required skill sets, for sort of an embedded INPO liaison with Chuck Casto and his team.

And you mentioned that was a DART team. Not crystal clear exactly what DART stands for, but Chuck Casta is the lead on that.

And then, the third thing was follow up on the conversation that we had earlier yesterday, I guess you said, with [redacted] regarding better access through INPO into -- INPO or WANO into TEPCO.

MALE PARTICIPANT: Right, right.

MALE PARTICIPANT: Okay.

MALE PARTICIPANT: Thanks, Fred.

MALE PARTICIPANT: Gentlemen, thank you much. We are looking for the e-mail.

MR. VIRGILIO: All righty.

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(CONFERENCE CALL INITIATED)

MR. VIRGILIO: (Inaudible.)

MR. CASTO: Hi, is this Marty?

MR. VIRGILIO: Yes.

MR. CASTO: Hey, this is Chuck Casto (inaudible).

MR. VIRGILIO: Hi, Chuck.

MR. CASTO: Hey. I like this -- I get to manage up a little bit. Could you do me a favor and --

MR. VIRGILIO: Sure.

MR. CASTO: -- could you run interference for me on something?

MR. VIRGILIO: Yeah, go ahead.

MR. CASTO: Yeah. I don't know who the guy is. He called. He is Deputy Secretary of Energy. He called the ops center, so they got his name. He didn't give me a chance to get his name. He wants to bring in -- he wants to supplement the team with a bunch of DOE folks, and -- you know, and industry scientists and stuff.

You know, I told him to give you a call, the ops center, and, you know, that -- and I also told him, you know, the DOE people here are doing a tremendous job. They are giving us all the support we

need, and they are, actually, doing a very good job.

But I -- you know, and we are crawling right now in terms of coordination with the Ministry, and I went through all of the reactor status with him and all that stuff. And we are coordinating with the Ministry, but we are crawling in that.

You know, we just started that this morning, and we are crawling, and, you know, I think that when we start walking and running -- and I think he has also talked to the Ambassador, because the Ambassador mentioned something about this to me, and I told him that -- I shared with him I thought we were crawling, you know, and maybe when we get started running we could use those people.

MR. VIRGILIO: Yeah.

MR. CASTO: But I'm not sure they are going to be helpful right now. You know, I can't -- I just can't imagine this team growing by DOE size.

MR. VIRGILIO: Yeah

MR. CASTO: You know, so if you would run some interference there on it, that would be helpful.

MR. VIRGILIO: All right. We'll get on it.

MR. CASTO: I mean, we can use him if -- you know, if we can -- if they can liaison with you

guys or something, I mean, you know, we've got to -- I hate to tell any Secretary of DOE that -- Deputy Secretary that "Thanks, but no thanks." But I tried to do it in -- you know, that -- maybe I shouldn't say that, but --

MR. VIRGILIO: No, no, that's good. We can follow up with Steve Lyons (phonetic). I wonder if these folks work for him.

MR. CASTO: Yeah, I think that's kind of the -- you know, and they are going to be helpful. They are going to be helpful in -- you know, down the road, and we appreciate the help, but, you know, not right this -- not right now.

MR. VIRGILIO: Okay. The other thing that we -- we talked to INPO just a little while ago --

MR. CASTO: Yeah.

MR. VIRGILIO: -- sent them the list that you provided to us to see if there is low-hanging fruit for them on that list. They have offered on more than one occasion to provide whatever hardware we need, that they would -- they would get it through the U.S. industry.

FEMALE PARTICIPANT: This is from [redacted]

[redacted]

MR. VIRGILIO: But Tom Blount is working

that. They have -- you'll recall yesterday we talked about INPO offering to send you somebody if you wanted somebody.

FEMALE PARTICIPANT: Yeah.

MR. VIRGILIO: And so we are going to, at some point, try to connect you and INPO to find out if there is a skill that you want that they've got.

MR. CASTO: Okay. That's probably going to -- that goes along with the DOE people. You know, I think --

MR. VIRGILIO: Not today, but, you know, maybe down the road.

MR. CASTO: No. What I mean is if we could connect INPO and DOE -- and I talked to them about what we -- I talked to the Assistant Secretary or -- about the core melt, you know, about the reactor stuff, and it -- you know, if you could run your models and tell us, you know, like right now the reactors aren't urgent for us, because it --

MR. VIRGILIO: Right.

MR. CASTO: -- seems like seawater cooling is working.

MR. VIRGILIO: Yeah.

MR. CASTO: But nevertheless, you know, sooner or later somebody is going to have to do

something, and DOE I'm sure will have a big piece of whatever it is that's done after the initial response is over with. They're going to have -- they're going to be a big player in that, like, you know, Three Mile Island or -- so -- or Chernobyl. So they will have a big role to play.

MR. VIRGILIO: Right, right. And then, we also reminded INPO that they were going to see if they could get you better access to data through WANO and TEPCO.

MR. CASTO: Yeah, it's at the back door. Yeah.

MR. VIRGILIO: Yeah. So they're working those three issues for us.

MR. CASTO: Great.

MR. VIRGILIO: And we'll follow up with DOE.

MR. CASTO: Okay. I just wanted to give you a heads up on that, that's all. I don't think I have anything new.

MR. VIRGILIO: Okay.

MR. CASTO: No new status other than that.

MR. VIRGILIO: All right. The other thing that I -- you know, we didn't mention when we were talking, but what Mike Case and the reactor safety

team was working on is they have been coordinating with Bechtel on how they could best use that equipment that is being delivered. I don't know if you were in that loop or not.

MR. CASTO: No, I wasn't. I wasn't. But we either have people that were, or I can get somebody that is.

MR. VIRGILIO: Okay.

MR. CASTO: Tim and John Moninger have been working that.

MR. VIRGILIO: Right. Because I heard John Moninger talking about mockups and a few other things.

MR. CASTO: Right, right.

MR. VIRGILIO: And, you know, I'm sure that the Bechtel people could be somewhat helpful here with respect to the --

MR. CASTO: Okay. We've got some --

MR. VIRGILIO: -- (inaudible).

MR. CASTO: Okay. [redacted]. I'm going to go up and --

MR. VIRGILIO: All right.

MR. CASTO: -- look at that. [redacted]

[redacted]

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[redacted]

MR. VIRGILIO: All right, good. We'll get the reactor safety team to reach out to your guys.

MR. CASTO: Yeah, get them to reach out to Tim.

MR. VIRGILIO: Okay.

ROB: Chuck, do you -- this is Rob. Do you know of any information on getting data from [redacted]

MR. CASTO: DOE promised it to us as soon as they get it downloaded and assessed.

MALE PARTICIPANT: Yes.

ROB: Okay.

MR. CASTO: And I'll say -- I think I'm going up by there now to go [redacted], and I'll check to see with them. [redacted]

[redacted]

RICK: No, I don't.

MR. CASTO: Okay. We'll find that out.

ROB: Thank you.

MR. CASTO: Do what?

MALE PARTICIPANT: (Inaudible.)

MR. CASTO: Yes. Do we know where that's

at?

MALE PARTICIPANT: It hasn't come in yet.

MALE PARTICIPANT: (Inaudible) DOE.

MR. CASTO: It hasn't come in yet, but Jack Foster is going to check with DOE and Rick, and check with DOE and see what the latest is on it.

MALE PARTICIPANT: (Inaudible) NARAC?

MR. CASTO: Yeah, NARAC.

MALE PARTICIPANT: (Inaudible.)

MR. CASTO: Okay. [redacted] 5

[redacted]

MALE PARTICIPANT: Thank you.

MALE PARTICIPANT: I think they're working on a rough draft now.

MALE PARTICIPANT: Did we get --

MR. CASTO: They're doing a rough cut of the assessment, and then they will provide us more.

MALE PARTICIPANT: We don't have the time to --

MR. CASTO: So in an hour or so we should have that. Okay. [redacted] 5

MALE PARTICIPANT: Okay.

MR. CASTO: All right. Bye.

(CONFERENCE CALL INITIATED)

MALE PARTICIPANT: You had asked about data for Chernobyl on the contamination in the -- we looked at this and this, and the (inaudible) this is very misleading, because this is not based on exposure. This is based on deposition and uptake.

MALE PARTICIPANT: Yes.

MALE PARTICIPANT: (Inaudible.)

MALE PARTICIPANT: Well, same thing. Here is your deposition level of (inaudible). Now, if you want us to go through the trouble of --

(Multiple inaudible speakers.)

MALE PARTICIPANT: Yeah. I mean, it just shows you that the iodine and (inaudible) the name --

MALE PARTICIPANT: Oh, this is just showing the standards.

(Multiple inaudible speakers.)

MALE PARTICIPANT: I wouldn't do them all, but --

MALE PARTICIPANT: Yeah, just maybe one in California and (inaudible).

(Multiple inaudible speakers.)

MALE PARTICIPANT: Here we go. Portland.

(Multiple inaudible speakers.)

MALE PARTICIPANT: You've got to figure

Haiti is probably (inaudible) because they have nothing to work with.

MALE PARTICIPANT: Haiti got 296 million in the first seven days.

MALE PARTICIPANT: They've also got a lot more than we (inaudible).

(Multiple inaudible speakers.)

MALE PARTICIPANT: I mean, it's certainly a larger earthquake, but the damage is all done. You know, it's the same as Japanese infrastructure (inaudible) better shape.

MALE PARTICIPANT: You can't be (inaudible).

MALE PARTICIPANT: Yeah, you can't be in good shape to handle a tsunami, but it wasn't as (inaudible).

(Multiple inaudible speakers.)

MALE PARTICIPANT: Remind me of who we are supposed to provide the notebook to. I know that data (inaudible).

MALE PARTICIPANT: (Inaudible.)

MALE PARTICIPANT: We're going to get a courier take it down and deliver it to Josh Matkin (phonetic) and (inaudible), but --

MALE PARTICIPANT: (Inaudible.)

MALE PARTICIPANT: Yes. We're going to wait probably until a little bit more of a decent hour, but we have an action item that's (inaudible).

MALE PARTICIPANT: Do we -- do you have a current action item list, or -- we don't have an action tracking --

MALE PARTICIPANT: No. Both myself and Rebecca are adding (inaudible). So stuff that we've been talking about tonight and (inaudible).

MALE PARTICIPANT: Can I get a look at that? I can get Rebecca to do it if you want.

MALE PARTICIPANT: I guess there ain't much more to (inaudible).

MALE PARTICIPANT: I sent the list to (inaudible).

(Multiple inaudible speakers.)

MALE PARTICIPANT: Yeah, that'll do it.

MALE PARTICIPANT: Okay. We sent the list to him, so (inaudible).

MALE PARTICIPANT: I'm trying to get (inaudible).

(Multiple inaudible speakers.)

MALE PARTICIPANT: Yeah, we had some guy yesterday (inaudible).

(Multiple inaudible speakers.)

MALE PARTICIPANT: So it's really important that you get (inaudible) -- I guess it's Tim Colvin (inaudible). And then --

MALE PARTICIPANT: We're trying to make that connection with them beforehand, so that he has that (inaudible).

(Multiple inaudible speakers.)

MALE PARTICIPANT: From whom and to whom, yeah.

(Multiple inaudible speakers.)

MALE PARTICIPANT: (Inaudible.) It just happened that I got a new laptop, and I got a really great plan. I had an unlimited data plan for $20 a month -- $40 a month with this. I got a good deal. It wasn't (inaudible).

MALE PARTICIPANT: Well, I'm trying to take care of you, Dan, but this -- this here is the watch fill, and it has you on TNT and the list of (inaudible), so you might want to just take a look at where you want to be. The situation has degraded since I got here.

(Laughter.)

They have you on every watch team out here now.

MALE PARTICIPANT: No problem.

MALE PARTICIPANT: Superman.

MALE PARTICIPANT: (Inaudible).

MALE PARTICIPANT: Look at TNT. Is that right, can you stand on watch (inaudible)? Are you going to (inaudible)? Because it's -- because it --

MALE PARTICIPANT: They put me off of there, because --

MALE PARTICIPANT: (Inaudible.)

MALE PARTICIPANT: And I was planning -- when Bill called me on Sunday, he said he -- 11:00 to 7:00 Monday to Friday, but that's what I was planning on anyway, so it's just taking up my Friday.

MALE PARTICIPANT: Okay.

MALE PARTICIPANT: I knew that was (inaudible) had me down tomorrow 7:00 to 7:00 (inaudible), because I guess they -- yeah, I hadn't planned on a 12-hour shift. I guess (inaudible) when I got here tonight, but it doesn't matter because (inaudible).

Yeah. I guess my understanding is (inaudible). I've got to figure out from his position (inaudible).

MALE PARTICIPANT: Okay. Well, if you want to mark it up, go ahead and mark that up, Benny. And, Rob, if you want to mark any of yours up.

MALE PARTICIPANT: (Inaudible.) Well, it wasn't clear what (inaudible) of pool -- me, Donna, and Larry were (inaudible).

(Multiple inaudible speakers.)

MALE PARTICIPANT: I don't know. Sounds about right, but I don't know exactly.

MALE PARTICIPANT: (Inaudible.)

MALE PARTICIPANT: Well, that's the other discussion, that Scott Morrissey (phonetic) is not going to (inaudible). Should we be declaring this (inaudible)? We've essentially got everybody manned except for the Safeguards thing. And is there -- what is the distinction between activation and (inaudible)? I'll have to get Jeff's readout on that, but the distinction between activation and monitoring as far as, are there any actions that we are required to do differently, or is it just an acknowledgement that you have a fully staffed center?

MALE PARTICIPANT: Well, of course, our response (inaudible) are designed more around the response to a nuclear powerplant here in the United States.

MALE PARTICIPANT: Right.

MALE PARTICIPANT: We're sort of a hybrid.

MALE PARTICIPANT: Yes.

MALE PARTICIPANT: We're staffed like --

MALE PARTICIPANT: Scott and I were talking earlier. I mean, essentially, we're activated. I mean, without calling it activation, that's essentially what we are. Headquarters is leading our response. We have our (inaudible) appropriate. And that's essentially what activation is.

Monitoring is designed so that the region has to wait for the event, and we are in support of them. And in (inaudible), when we have a (inaudible), technically --

MALE PARTICIPANT: We are almost in (inaudible) when we're in expanded activation, because technically --

MALE PARTICIPANT: Well, that would be --

MALE PARTICIPANT: -- we've got our --

MALE PARTICIPANT: -- delegated certain responsibilities, which we may have.

MALE PARTICIPANT: We are basically supporting the guys in Tokyo at this point.

MALE PARTICIPANT: Right.

MALE PARTICIPANT: Essentially, we're at the highest level of our response.

MALE PARTICIPANT: The strategic thing

about it is -- or something that helps what you were just talking about go down easier across all the offices is, well, if we're in activation mode, you know, that's -- no lie, we've got to support the ops center with a -- you know, with our people. Whereas, you have people right now saying, "Well, do I need to get somebody to that position? Why am I -- do I need to do that for monitoring?"

MALE PARTICIPANT: Yeah.

MALE PARTICIPANT: And if we're just in monitoring, why am I doing that? I mean, some people don't have any problem. They come in and --

MALE PARTICIPANT: Right.

MALE PARTICIPANT: -- we've got basically DBRs. Our division is basically (inaudible). Nobody is doing any work down there, except for Bob Gaylor (phonetic) doing the rulemaking (inaudible).

MALE PARTICIPANT: How about (inaudible)?

MALE PARTICIPANT: Yeah. Well, that's another (inaudible).

MALE PARTICIPANT: This is an actual -- the application --

MALE PARTICIPANT: This is what we were going to do. (Inaudible.)

MALE PARTICIPANT: It is for us. But for

the (inaudible) in multiple events, the licensees (inaudible) to participate in (inaudible).

MALE PARTICIPANT: So I don't know. Do you want to --

MALE PARTICIPANT: (Inaudible) end up with that after this is all said and done and, actually, (inaudible) better now.

MALE PARTICIPANT: Yeah, I think we might have to look at how much we (inaudible) in LE11, because do we have the resources to do that again in another --

MALE PARTICIPANT: Yeah. (Inaudible) same lessons that we did for them.

MALE PARTICIPANT: So what do you think about activation, though? Is there any -- is there any -- are there agency benefits to say we're in activation and kind of acknowledge where we are? Or should we just kind of keep it ad hoc?

MALE PARTICIPANT: I think it's a good discussion point for our (inaudible).

MALE PARTICIPANT: Yeah. It's -- to me, the down side of it is it gets away from Japanese investment (inaudible). We are not trying to solve the problem here. We're just (inaudible) what we have (inaudible).

MALE PARTICIPANT: Mr. Chuck Casto is on the ET conference.

MALE PARTICIPANT: Hi, Chuck.

MR. CASTO: Hey, guys. We're getting a CIPRNET address from the reactor safety team, so you can guys can [redacted] 5

MALE PARTICIPANT: Oh, great.

MR. CASTO: And then, also,. we've got the 7th Fleet people working on telling us what we are [redacted] With the equipment we have, you know, a regular computer, you can't really -- you can't really tell exactly what you're [redacted] 5

MALE PARTICIPANT: (Inaudible.)

MR. CASTO: Yeah.

MALE PARTICIPANT: We're looking at something that is like one (inaudible).

MALE PARTICIPANT: Drop off?

MR. CASTO: Yes, sir. I'm sorry. I got new information in my other ear. A couple of things.

[redacted] 5

[redacted]

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MALE PARTICIPANT: All right.

MR. CASTO: So, and then we will tell you exactly when -- when the analyst gets this, calls us and tells us what is that -- what is going on with -- see if we can tell anything on Unit 4, then we'll let you know.

MALE PARTICIPANT: Okay.

MR. CASTO: Okay?

MALE PARTICIPANT: All right.

MR. CASTO: Talk to you soon.

MALE PARTICIPANT: Thanks.

(CONFERENCE CALL INITIATED)

DAN: Good morning, Brian.

BRIAN: Good morning, Dan.

DAN: How are you?

BRIAN: All right. I'm just calling in to see what was -- can you bear with me a second?

DAN: Yes.

MALE PARTICIPANT: This is (inaudible) Unit 5 (inaudible).

MALE PARTICIPANT: Yeah. That's two-day old information.

MALE PARTICIPANT: Oh, this is accurate, that Unit 5 is providing --

MALE PARTICIPANT: That's the newer information.

MALE PARTICIPANT: (Inaudible.) So the unit is providing (inaudible).

MALE PARTICIPANT: That's the information we have.

BRIAN: Hey, Dan. This is Brian. I'm back.

DAN: Hey. We actually had a fairly quiet shift tonight.

BRIAN: Are you knocking on wood when you say that?

DAN: Yes. I don't want to jinx the last hour and a half, but the facility status is similar to yesterday. The Japanese focuses more on Unit 3 than on Unit 4, and there is [redacted] They have had Japanese Self-Defense Force helicopters dropping water on Unit 3. Units 5 and 6 seem to have gotten the cooling back onto their pool using power from diesel in Unit 5. Things are pretty much where they were. (Inaudible.)

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The pumps arrived at the site about seven hours ago, so the reactor safety team has been working with Bechtel and GE, looking at how to get those systems hooked up and start getting water continuously on this where it's needed, although I guess there are still some significant concerns at the site around the (inaudible) have to get that stuff in place.

BRIAN: What kind of dose rates are they seeing now, Dan, still about the same, or did they change?

DAN: They're still about the same in terms of in the 10 to 40 rem per hour range around some of the reactor buildings.

BRIAN: Did we get word that they are still pumping seawater to the reactors?

DAN: As far as we know, they are still

pumping seawater to the reactors, and those seem to be stable. We've got some indications that each of the three reactors is -- the vessel, the very low pressure, with about half the fuel uncovered in all three, and no -- no pressure is indicated to the suppression pool.

The [redacted] 5

[redacted] So that seems to support that information.

It looks like we've got another spike up at the front gate, though. We're getting reports of 150 millirem, so one rem at the front gate. Last time I had seen it before, it had gotten back down in the range of 60 millirem.

So had -- [redacted] 5

BRIAN: Got it.

DAN: So TEPCO and the local power distribution outfit are working on restoring electric power to the site, and they said they were expecting to get electric power back to Units 2, 5, and 6 today, and Units 1, 3, and 4 tomorrow. But we're a little bit fuzzy on what they expect to work when they bring power back in.

BRIAN: Yes.

DAN: So I'm not sure where that's going, but they noted that -- the guys in the Embassy noted that it could at least provide a source of power for temporary equipment.

BRIAN: Yeah. (Inaudible) the containments are damaged on 2 and 3?

DAN: We got mixed up on that. We're still carrying on our board that there is possible damage to containments, other things we see. Every now and then we'll see something else (inaudible). So possibly some tears in those that are allowing some leakage, but not clear.

BRIAN: Yeah. I mean, you've got to ask, where is the heat going? Although certainly after this many days, the decay heat is going down, but it's not gone.

DAN: Yes. Absolutely not.

BRIAN: (Inaudible) pouring the seawater in? I guess they -- they said they had the SRVs open, right?

DAN: Yeah. And if they're pumping seawater in, but maintaining level (inaudible), you know, they could be steaming off seawater and sending out (inaudible).

MALE PARTICIPANT: (Inaudible.)

DAN: Right.

BRIAN: So --

DAN: They have indicated to our folks over there that they believe there is water in the Unit 4 spent fuel pool. They showed our people images that they believe support that conclusion, and our guys are not necessarily seeing what they are seeing in the image, so that's still an open question, what those -- whether or not there is water in the Unit 4 pool. But the [redacted] 5

BRIAN: They said on the news last night that [redacted] -- 5

DAN: Yes, we --

BRIAN: -- over the --

DAN: Right. [redacted] 5

[redacted].

BRIAN: And that doesn't give us any better (inaudible) idea about the full conditions?

DAN: You can't even see the -- I mean, in terms of getting a visual of the pool, there is so much debris over the top to even make out the outline of a pool, let alone any visual sense of the contents.

[redacted] 5

BRIAN: Now, how much is coming into RT at this point? And, you know, do we need to -- would you have any recommendations on staffing levels that we have been maintaining? Are we still about right or --

DAN: I'd probably let it go a little longer before I made any changes, but I think it's -- I think it has been a relatively quiet shift for the PMT. The reactor safety team is busy trying to support the effort to get water pumping. The (inaudible) team has still got a fair amount of things going on.

BRIAN: Okay.

DAN: I think the -- our sense of where we're at is we're now primarily supporting Chuck and his team in anything that they need. And to the

extent that they've got material that we can help identify, we'd do that through the liaison team, although we -- Chuck -- early in this shift Chuck forwarded us a two-page list of equipment requested from the U.S. Government. And we got the LT fired up to go start tracking that stuff down.

And when they started making contacts, they came back and said USAID had the lead on that and we needed to back off. So I think we just need to make sure that that coordination is still going forward. It looks like we are not in the lead for anything except getting the pump hooked up and getting water moving into these facilities. And anything we can do in terms of advising to support that.

MR. VIRGILIO: Yeah. But, Brian -- this is Marty. Good morning.

BRIAN: Good morning, Marty.

MR. VIRGILIO: The one thing about that is that we continue to hear from Chuck that the Chinese -- that the Japanese don't have much of an appetite for that approach, that they still believe that the water cannons and the helicopter dumping buckets of water on top of the units is the better strategy.

And, you know, we are assuming that they don't want to accept the dose that comes with hooking

up this pumping equipment.

BRIAN: Oh.

MR. VIRGILIO: So although the pumps are onsite, and Bechtel, in combination with our reactor safety team, has sort of sketched out, you know, how one would hook up the pumps to get the head necessary to provide water to the spent fuel pools, we are not getting any takers from the Japanese side of this equation.

[redacted]

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BRIAN: Yeah.

MR. VIRGILIO: So that is going to be an interesting issue as that plays out today.

BRIAN: In terms of our dose objections, we -- are we using (inaudible) of assumptions in terms of which pools are likely releasing rad material at this point? Do we know?

MALE PARTICIPANT: No. I don't think we have made any adjustments, but I -- we are not -- we don't have any -- enough specific information to make an adjustment to projections we were making yesterday.

BRIAN: Got it. Just kind (inaudible) add to the (inaudible) the wind shift, is that still in the forecast?

MALE PARTICIPANT: Right.

BRIAN: Did we ever get the -- I'm trying to think of what the best term is, the -- everything -- everything (inaudible) scenario back from -- I thought that was one we were going to ask NARAC to run once they had time.

MALE PARTICIPANT: Are you talking about the doses they saw all the way out in California?

BRIAN: Yes.

MALE PARTICIPANT: Yeah. That is going to be run by Research in Sandia, but they are not going to be able to do it until later today.

BRIAN: Oh, okay.

MALE PARTICIPANT: Sounds like they had to modify the code first in order to do that run.

MALE PARTICIPANT: Had to modify the MAC code. They -- NARAC did do their evaluation of -- using our source term, and they -- they were calculating doses, particularly for children -- thyroid doses of (inaudible) after -- that the one-year dose, assuming some very conservative assumptions about ingestion, and (inaudible) practices.

So we had the group -- the PMT look at some of the actual data from deposits from Chernobyl, which we had from DITTRA.

BRIAN: Right.

MALE PARTICIPANT: Historical data. And convert those to doses using the same update techniques. And they have some calculations -- they hadn't shown them to be (inaudible), but they are showing millirem range doses, like one to 10 millirem.

MALE PARTICIPANT: (Inaudible.)

MALE PARTICIPANT: For the actual deposits. So we think there is some extreme conservatism in the DITTRA numbers, and we will know more once Research does their (inaudible).

BRIAN: Okay.

MALE PARTICIPANT: (Inaudible.)

MALE PARTICIPANT: I got that. He wants to work on the last version (inaudible), or is there fresher version?

(Multiple inaudible speakers.)

MALE PARTICIPANT: Are you taking it down?

MALE PARTICIPANT: Rebecca is going to take it down.

MALE PARTICIPANT: (Inaudible.)

MALE PARTICIPANT: Yes.

(Multiple inaudible speakers.)

MALE PARTICIPANT: So that should be part of the data.

MALE PARTICIPANT: Do they have the capacity to do radiation readings and --

MALE PARTICIPANT: Yes. They will be able to have (inaudible).

MALE PARTICIPANT: Yeah. I'm not sure what (inaudible) we'll get in terms of (inaudible).

MALE PARTICIPANT: Location.

MALE PARTICIPANT: Or location. We'll see. We just don't know what --

MALE PARTICIPANT: Right.

MALE PARTICIPANT: -- at this point.

MALE PARTICIPANT: There is, in the (inaudible), there is (inaudible). And they do logistics, they do gathering material, they do all that type of thing. The office is set up specifically for that. So we reached out to that group. And we didn't find out about it until this evening. Our interpreter (inaudible). And we got contact that they have connected with John Moninger and --

MALE PARTICIPANT: Great.

MALE PARTICIPANT: -- (inaudible) been taking them to an Embassy-contracted interpreter.

They took them to MOD, which is part of that function. (Inaudible) Unit Special Forces Japan team with Colonel Towne (phonetic) and DITTRA's Major Lynn, took them and (inaudible) Lieutenant General Hiranocca (phonetic) (inaudible) meeting when they got back.

(Multiple inaudible speakers.)

MALE PARTICIPANT: We are trying to get up with (inaudible), and I guess that's why we couldn't reach (inaudible).

(Multiple inaudible speakers.)

(CONFERENCE CALL INITIATED)

MALE PARTICIPANT: Jim, welcome back.

(Multiple inaudible speakers.)

MALE PARTICIPANT: You give them information and they try to reengineer the answer.

MALE PARTICIPANT: Right.

MALE PARTICIPANT: They don't do that anymore. So we're just trying to get (inaudible), you know, only what somebody puts up on the board.

MALE PARTICIPANT: Not only that, but you've got the Chairman who is constantly sending us e-mails during the day and expecting that we are watching this continuously. I mean, us. He is sending me e-mails (inaudible). You know, it's essentially --

MALE PARTICIPANT: Yeah, I was thinking of this on the way in. I was going to have one of these installed (inaudible). You kind of need it. You need somebody to keep looking (inaudible).

MALE PARTICIPANT: Yeah. Actually, the nice ones where you have --

(Multiple inaudible speakers.)

MALE PARTICIPANT: FYI, the Chinese --

(Multiple inaudible speakers.)

MALE PARTICIPANT: (Inaudible) try to

follow this by e-mail is there is not a -- there is not a non-NRC name in the entire (inaudible). I'm just saying (inaudible).

MALE PARTICIPANT: Well, okay, here's how that all transpired. I was on the phone with (inaudible) asking him to come (inaudible). I was trying to get us access to WANO.

MALE PARTICIPANT: Yes.

MALE PARTICIPANT: "In return," he said, "you know, I'd really like to get somebody from our side involved in this."

MALE PARTICIPANT: Yes.

MALE PARTICIPANT: So we've been working that deal for the last 24 hours, 36 hours.

MALE PARTICIPANT: There is no preclusion of that, though, by --

MALE PARTICIPANT: I'm not asking permission. I am not asking permission.

MALE PARTICIPANT: (Inaudible) that you need.

MALE PARTICIPANT: That's absolutely right.

MALE PARTICIPANT: And we ought to giving assistance -- we ought to be giving the experts, not --

MALE PARTICIPANT: On the other side of this is DOE is pushing to have a contingent of DOE people join Chuck. Chuck is saying, "I don't need that kind of help just yet." So that's an issue that --

MALE PARTICIPANT: Yes, because if he sends a contingent of DOE people, we are going to have to send a contingent of wranglers to --

MALE PARTICIPANT: And Chuck knows that very well. So this is an issue that either Bill or Mike could have to deal with today with former Commissioner Lyons (inaudible). Maybe he wants this settled down, but not today. We don't need that kind of --

MALE PARTICIPANT: Could we possibly terminate the event before we get into (inaudible)?

MALE PARTICIPANT: Right. The PMT wants to (inaudible) some insights to the press release from yesterday about the (inaudible).

Hey, Jim, for your benefit -- is this the first time you've been here?

JIM: I've been following it (inaudible).

MALE PARTICIPANT: From (inaudible).

JIM: Yes. (Inaudible.)

MALE PARTICIPANT: All right. We put out

a press release yesterday. The theme of the press release is the U.S. has recommended protective action, get out -- protective action guidelines out 50 miles.

JIM: Yeah. What I read was the U.S. is recommending for U.S. citizens to --

MALE PARTICIPANT: Yes.

JIM: -- execute a 50-mile evacuation.

MALE PARTICIPANT: That's right. That's correct.

[redacted]

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MALE PARTICIPANT: So with that press release, somebody made the decision that we attach some very highly technical data from Rascal (phonetic) runs. And if you're smart enough and you look closely at the data, it appears to be very inconsistent, because it shows -- we did two runs.

We did one run with -- assuming a single cooler was (inaudible) the atmosphere. And then, we did another run assuming two coolers and a spent fuel were released to the atmosphere, and it showed a single cooler as greater activity at the 10-mile point.

MALE PARTICIPANT: So we didn't have -- we didn't know why that was until we had to go back in and dissect the assumptions. So the reasons for that inconsistency are the following.

Number one is is that for a single cooler it was assumed that it was at power and was an immediate release. With the two coolers and the spent fuel pool, the assumption was it was released two days after shutdown.

The second factor is the meteorology. For the single unit release, it was a lower windspeed, and there were rainy conditions. So your particulates are falling out sooner at the 10-mile point. For the multi-unit, there was no rain and greater wind speed. So at the 10-mile point, you have this inconsistency, and then they catch up to each other at the 50-mile point.

MALE PARTICIPANT: (Inaudible.)

MALE PARTICIPANT: Does that make sense?

MALE PARTICIPANT: [redacted]

MALE PARTICIPANT: Yeah. So it was

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(inaudible).

MALE PARTICIPANT: Well, the plots really only go to 50 miles.

MALE PARTICIPANT: Yes.

MALE PARTICIPANT: Rascal is only good to 50 miles.

MALE PARTICIPANT: But it shows --

MALE PARTICIPANT: You can't get (inaudible) at 50 miles.

MALE PARTICIPANT: (Inaudible) but we don't know what it is beyond that.

(Multiple inaudible speakers.)

MALE PARTICIPANT: Do we have any follow-on --

MALE PARTICIPANT: Well, NARAC is going to (inaudible), because they -- apparently, they got --

(Multiple inaudible speakers.)

MALE PARTICIPANT: We know about Chernobyl. And if we were to have (inaudible) where we are today, and U.S. citizens in the Ukraine, what would we have told them? We've got the benefit of knowing everything there is to know about Chernobyl. How far out would we (inaudible)? Would that be roughly consistent with the recommendation we would have made then?

MALE PARTICIPANT: We haven't looked at that aspect of it. We are looking at -- we are actually looking at the deposition (inaudible) function.

MALE PARTICIPANT: So that's what you are largely going to get here, right?

MALE PARTICIPANT: Yes.

MALE PARTICIPANT: Maybe a little less, because with an operating reactor -- we have already gone beyond the operating reactor stage. Realistically, we could go in (inaudible) the spent fuel. Okay? So it's got a (inaudible) age in it.

BRIAN: Again, this is Brian.

MALE PARTICIPANT: Hey, Brian.

BRIAN: Good morning. Welcome back.

MALE PARTICIPANT: Good morning.

BRIAN: One of the other scenarios that was run but was not included with the press release was Unit 4 spent fuel (inaudible) with (inaudible) melting.

MALE PARTICIPANT: Yes.

BRIAN: And that also took you to the 50-mile tag.

MALE PARTICIPANT: In fact, that was the driver. That trumped these other ones.

MALE PARTICIPANT: Yeah. Isn't there a problem, though, about having (inaudible) that says you are exceeding EPA tags outside (inaudible)? That's a problem.

MALE PARTICIPANT: How so?

MALE PARTICIPANT: I don't think we said that.

MALE PARTICIPANT: It sounds 50 is (inaudible), unless you put something in there that says when you now understand how the code works, what the underlying assumptions are with regard to meteorology and the amount of content that is actually likely to be released or has been or (inaudible).

Or you can do an incremental (inaudible) that says, "Well, we said (inaudible) the code, and your understanding of the code and how it works, and when you (inaudible) the actual conditions, this is a prudent step now as we start to preclude the need for further steps later," or something like that.

Otherwise, you've got to kind of -- you've got to finesse the (inaudible) that the runs show that you should be evacuating more than 50, you've got to explain why you're not.

MALE PARTICIPANT: Well, our protective action recommendation was --

MALE PARTICIPANT: Whatever the answer is, you need to explain it.

MALE PARTICIPANT: We're not (inaudible) the run.

(Laughter.)

MALE PARTICIPANT: The basis for the protective action of 50 miles was the run we did that only looked at Unit 4 and the (inaudible).

MALE PARTICIPANT: (Inaudible.)

MALE PARTICIPANT: No, no.

MALE PARTICIPANT: I'll give you a perspective. I've got -- I'll give you a perspective from a knowledgeable person who has been outside of the inner circle following this based on what we have (inaudible) to ourselves. Not necessarily public, but public too, but mostly what we've said to ourselves.

And, you know, you can -- you can just point at a few things that are obvious. From day one or two, especially after the first explosion, this seemed to be transitioning to a spent fuel situation, and we had to worry about analytics that (inaudible) zirconium fire, which Research says will happen, and NEI says something different in their talking points.

MALE PARTICIPANT: But I think one of the unknown factors in that is, what do they do with their

spent fuel when they offload it? If they're doing a one by four like we have told our guys to do, then the research studies would say that the Unit 4 pool was too old to --

MALE PARTICIPANT: (Inaudible) fire.

MALE PARTICIPANT: Yes.

MALE PARTICIPANT: But if not, then --

MALE PARTICIPANT: I don't think we should presume that.

MALE PARTICIPANT: No, I'm not presuming that.

MALE PARTICIPANT: You want to go back and find out what we told them on the (inaudible) and aircraft impact.

MALE PARTICIPANT: What we told --

MALE PARTICIPANT: Japan.

MALE PARTICIPANT: We told them about (inaudible).

MALE PARTICIPANT: You told them (inaudible)?

MALE PARTICIPANT: We told them (inaudible), but we don't know if they did it. I think that's probably who we told. Do they know if they did it?

MALE PARTICIPANT: (Inaudible.)

MALE PARTICIPANT: That's a (inaudible) area of information. We may be (inaudible) anything that we're getting in a reliable way.

MALE PARTICIPANT: Did they do -- I mean, did they do anything (inaudible)?

MALE PARTICIPANT: We don't know.

MALE PARTICIPANT: (Inaudible.)

MALE PARTICIPANT: I know it was shared with them, but I don't know if they ever --

MALE PARTICIPANT: You're right. We never -- we shared it, but we never --

MALE PARTICIPANT: Never followed up and --

MALE PARTICIPANT: -- did anything that they would (inaudible). I would just comment that if you are going to provide the runs, and if one of the runs indicates that you are exceeding the (inaudible) out beyond 50, you have to put in --

MALE PARTICIPANT: (Inaudible) ready to explain it.

MALE PARTICIPANT: I think it's --

MALE PARTICIPANT: Maybe you have to -- maybe you just go, you know, download the run and attach it to have some explanation that goes with it in the attachment that says -- but I think it always

gets down to, what are your assumptions? Have you considered the assumptions that were used and how the code treats that assumption? The staff's evaluation or assessment is that it was -- what are we saying, appropriate and prudent? Is this a prudence measure or a (inaudible)?

MALE PARTICIPANT: [redacted]

MALE PARTICIPANT: Oh.

MALE PARTICIPANT: Well, fortunately, what they (inaudible) prevailing wind (inaudible) right direction all the way through (inaudible).

(Multiple inaudible speakers.)

MALE PARTICIPANT: I think they are worried about the dose, and they should be.

MALE PARTICIPANT: Yeah, yeah.

MALE PARTICIPANT: Do the Russians have anything to offer on that? Ukraine?

MALE PARTICIPANT: They're going to have to do Chernobyl all over again when they do it?

(Multiple inaudible speakers.)

MALE PARTICIPANT: Well, you're shielded until you drop the water, and then you --

(Laughter.)

MALE PARTICIPANT: How about (inaudible)?

[redacted]

MALE PARTICIPANT: They are using helicopters the same way you fight forest fires.

MALE PARTICIPANT: Right.

MALE PARTICIPANT: (Inaudible) the same way you fight forest fires. The helicopters (inaudible) transition. You have a lot more (inaudible), even if you are just transitioning across. Use some of that stuff that we use in a forest fire to (inaudible) up to speed (inaudible) faster speed, same dose commitment, because you blow through the area quicker. You are getting less --

MALE PARTICIPANT: It spreads.

MALE PARTICIPANT: Yes, it (inaudible) and

more air is (inaudible).

MALE PARTICIPANT: Well, maybe they don't want to (inaudible).

MALE PARTICIPANT: That's a (inaudible) system where they dump it (inaudible).

(Multiple inaudible speakers.)

MALE PARTICIPANT: They've got two pictures that they've been running all night. There's only two shots, and the Defense Minister said they would (inaudible).

MALE PARTICIPANT: (Inaudible.)

[redacted]

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MALE PARTICIPANT: Yeah. (Inaudible.)

MALE PARTICIPANT: -- but you're talking 150 to 200 gallons --

MALE PARTICIPANT: Per minute, right.

MALE PARTICIPANT: We also had them put panels on the roof, so that you could get water in there. Remember that?

(Multiple inaudible speakers.)

MALE PARTICIPANT: Yeah, we were debating earlier about what we should call this -- monitoring, activation, expanded activation.

MALE PARTICIPANT: (Inaudible.)

MALE PARTICIPANT: LE11 is what we are calling it.

(Multiple inaudible speakers.)

MALE PARTICIPANT: If it's possible -- don't do it if it isn't -- what's the best way to get -- we're using YBOC (phonetic) or CRON (phonetic)? Do we have any (inaudible) with tracking --

MALE PARTICIPANT: Well, you do have an ET CRON. You can sort of go back to the very beginning and --

MALE PARTICIPANT: Can that get downloaded?

MALE PARTICIPANT: You can look at it from your desk. Or we can print one (inaudible) out for you.

MALE PARTICIPANT: Can you print it, so that's it more portable?

MALE PARTICIPANT: Absolutely.

MALE PARTICIPANT: That would be helpful.

MALE PARTICIPANT: But something that

might be even more useful is we have all these status updates that we have done.

MALE PARTICIPANT: I've been reading them.

MALE PARTICIPANT: Okay.

MALE PARTICIPANT: I will give you this comment, too. When we first started -- well, not long after we started, Sarah was sending out an update, and that was -- I think she got like two or three of them off. And the next thing we transitioned to is (inaudible) we were filling out to see if (inaudible) --

MALE PARTICIPANT: Right.

MALE PARTICIPANT: -- which was completely uninformative. So I sent back a note to her, a note to Sarah, and said this -- you know, we've got to continue to do these other things, because you're (inaudible) trying to track this. You know, that DHS table makes sense for (inaudible) but it doesn't do an NRC internal audience any good.

(Inaudible) various places in (inaudible). One of the people I'm traveling with was (inaudible) John McCann, right, from Entergy, so he is tied into NEI. I mean, we're doing -- we're with NRC saying, "What's NEI?" (Inaudible) in terms of useful information.

Now, I'm not saying it was (inaudible), just more of it. He is following, you know, his (inaudible). We've got out Blackberrys out trying to figure out what the hell was going on.

MALE PARTICIPANT: Yeah. I think that was one of our early --

MALE PARTICIPANT: (Inaudible) back, though, to this other update, which --

MALE PARTICIPANT: That was a DHS, you know, template that we were trying to propose information into.

MALE PARTICIPANT: Yeah.

MALE PARTICIPANT: It might be useful for them, and --

MALE PARTICIPANT: My point is it doesn't serve an internal NRC audience.

MALE PARTICIPANT: Yeah.

MALE PARTICIPANT: At all.

MALE PARTICIPANT: We settled into that status update, and I think we're going to keep it.

MALE PARTICIPANT: That's helpful. Probably should scrub it, though, to make sure there's no conflicting information in it, because some of the stories get -- a quick read was (inaudible).

MALE PARTICIPANT: Well, we have that

version, which is kind of a lengthier status, and then we have a light version as well, so --

MALE PARTICIPANT: Yeah.

MALE PARTICIPANT: -- the Chairman or --

MALE PARTICIPANT: (Inaudible) sitting on a wall (inaudible) that said, "Okay. What happened to the spent fuel pool?" That doesn't come out for some (inaudible).

MALE PARTICIPANT: But it goes back to our --

(Multiple inaudible speakers.)

MALE PARTICIPANT: How we started out, we woke him up, we woke (inaudible) between Admiral Donnell (phonetic), the Ambassador in Tokyo, and us, over the protective action for U.S. citizens.

MALE PARTICIPANT: Oh, Naval Reactors.

MALE PARTICIPANT: Yeah. Naval Reactors sent a note to the Embassy and said you may want to (inaudible).

MALE PARTICIPANT: Yeah.

MALE PARTICIPANT: Yeah. And the Ambassador (inaudible).

MALE PARTICIPANT: There's a number of things that -- you know, on any given day, there is a list of things he is wanting from us. So, you know,

if he calls, which I expect he will, we want to just go down that list, give him the status. That changes from day to day, Jim.

But, yeah, there's a threshold. I mean, if all of a sudden you sent the White House or any of its counterparts are engaged on a particular issue, (inaudible) call the Chairman and (inaudible).

(Multiple inaudible speakers.)

(CONFERENCE CALL INITIATED)

MALE PARTICIPANT: The Chairman will be going down to the White House for an 0800 (inaudible) call, and we've got (inaudible).

(Multiple inaudible speakers.)

MALE PARTICIPANT: Everybody is staying nice and calm.

(Laughter.)

(Multiple inaudible speakers.)

MALE PARTICIPANT: Well, actually that's -- compared to -- did you watch the hearing yesterday?

MALE PARTICIPANT: (Inaudible.)

[redacted]

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(Laughter.)

(Multiple inaudible speakers.)

MALE PARTICIPANT: Hey, Marty?

MR. VIRGILIO: Yes.

MALE PARTICIPANT: I just wanted to let you guys know the AMS data is ready. We are going to start calling it off.

MR. VIRGILIO: Oh, great.

(Multiple inaudible speakers.)

(CONFERENCE CALL INITIATED)

MALE PARTICIPANT: Good morning, Chairman.

CHAIRMAN JACZKO: Good morning.

MALE PARTICIPANT: How are you?

CHAIRMAN JACZKO: Fine. How are you, sir?

MALE PARTICIPANT: Good.

CHAIRMAN JACZKO: Could you give me an update how things stand?

MALE PARTICIPANT: Yes. Not significant changes from yesterday. The focus is still primarily on the Units 3 and 4 spent fuel pools. Their efforts to drop water from helicopters have focused on Unit 3 spent fuel pool.

We got some recent [redacted] 5

[redacted] So there is not a significant change in the (inaudible) plant status that we reported before.

I guess one other thing I would add is we have indications that the temperatures have dropped in the Unit 5 and 6 spent fuel pool. We have indications that they have established cooling in those two.

MALE PARTICIPANT: Chairman, we now focused more on pool number 3 than pool number 4.

DAN: Yes. A couple of the data points

that I think you are waiting for we don't quite have yet. There is the aerial monitoring -- aerial measurement system from DOE. They did do the flight. We got that initial data package within the last hour, but I think there was -- I think that (inaudible) to get that data.

The other piece looking at the projections to California, Research is working with Sandia. Sandia needs to modify the code, because the code currently goes out to 1,000 miles, so we expect -- we are hoping later today to get that worked out and get them to start getting some runs to support that.

MIKE: Any ETA on that, Dan?

DAN: Not a specific ETA at this point (inaudible). But our focus right now has changed because --

MIKE: Hours? Days?

DAN: We heard earlier, Mike, and so that was about maybe 12 hours ago.

MIKE: So later today we should expect to see something. Of course, it will have to be validated.

MALE PARTICIPANT: Right.

CHAIRMAN JACZKO: Okay.

MALE PARTICIPANT: [redacted]

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[redacted]

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MALE PARTICIPANT: We saw some video footage that just was broadcast on Japanese TV that about two hours ago they allegedly were using the water cannons, but we didn't see actual shooting of the water. We just heard about it.

CHAIRMAN JACZKO: Okay.

MALE PARTICIPANT: And then, there was a report that they backed away because of the high rad field. So that's not encouraging.

CHAIRMAN JACZKO: Okay.

MALE PARTICIPANT: That's the other thing

that has changed somewhat. The dose level at the fence was -- dose rate was about 60 mr previously, and now it's up to between 150 mr and one rem at the fence, so dose rates seem to be going up somewhat.

CHAIRMAN JACZKO: Okay. Anything on Units 1, 2, and 3?

MALE PARTICIPANT: Well, 3, the focus for -- appears to be on the pool. [redacted] The status of core in containment for 1, 2, and 3 remains unchanged.

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CHAIRMAN JACZKO: Okay. Is there -- are we -- are they still doing seawater injection, or are they --

MALE PARTICIPANT: Yes.

MALE PARTICIPANT: To the best of our knowledge.

MALE PARTICIPANT: To the best of our knowledge. We have no -- we have no report of any change from -- from previous reports that they are doing seawater injection and have stable cooling.

MALE PARTICIPANT: Now, they are trying to bring AC power back to the units sequentially, but I

don't know -- you know, they could have electrical power outside the fence, but, I mean, I just don't know how they're going to be able to reconnect to that equipment. They would have to do an awful lot of work, given the tsunami effects.

CHAIRMAN JACZKO: So right now our concern -- our primary concern is the three -- the two pools.

MALE PARTICIPANT: Yes.

CHAIRMAN JACZKO: Do we know about any releases? Oh, I guess we're waiting on the air sampling.

MALE PARTICIPANT: Well, they're having continual releases, because they are continuing to test.

CHAIRMAN JACZKO: Okay.

MALE PARTICIPANT: Right.

CHAIRMAN JACZKO: But from the pools, at this point, we don't know?

MALE PARTICIPANT: Well, the indication from our team in Japan was that they expected that there was high contamination caused by the explosions detected in the pool. And the -- remember, the information about bulldozing the debris field substantially reduced the dose rate.

So their thought was that if you don't

have fuel particles out there, at least you have substantial contamination of the surrounding ground.

CHAIRMAN JACZKO: Yeah.

MALE PARTICIPANT: Okay.

CHAIRMAN JACZKO: What -- so going forward, what are -- are they asking us what we would recommend with the fuel pools?

MALE PARTICIPANT: Well, we have given them the recommendation, and we have actually done some design work about how you would lash up those pumps.

CHAIRMAN JACZKO: Yeah.

MALE PARTICIPANT: So will we provide a recommendation (inaudible) the pools and what the (inaudible) water off in (inaudible) the one that are still --

MALE PARTICIPANT: Yes.

MALE PARTICIPANT: -- in the (inaudible) geometry (inaudible) and sand on --

MALE PARTICIPANT: They haven't really taken the sand option. They are still focused on water, providing water only, is what we have been hearing.

MALE PARTICIPANT: Because they believe that they can reflood Unit 4 and Unit 3's pool, but

whether they can or not remains to be seen.

CHAIRMAN JACZKO: Do they -- I know there was a lot of debate last night about whether 4 was dry or not dry. Is that still an issue of --

MALE PARTICIPANT: Yes. It still under debate. Chuck was shown some pictures by the Japanese, but he said, you know, my -- his viewing of those pictures is inconclusive. Where they would like to say, "Well, you see that" -- you know, some shimmer that they would indicate would be from water in a pool, Chuck couldn't see it in the pictures he reviewed.

CHAIRMAN JACZKO: Is it a material fact at this point, or is it clear that there is a -- do we know anything about the inventory, or can surmise anything about the inventory?

MALE PARTICIPANT: Inventory of water?

CHAIRMAN JACZKO: Yes.

MALE PARTICIPANT: I would say that we do not have any conclusive information that would prove that there is no water, but the heat signatures off of both of those pools is substantial.

CHAIRMAN JACZKO: In a way that would be consistent --

MALE PARTICIPANT: In a way that would

indicate a substantial loss of water, if not complete.

CHAIRMAN JACZKO: Okay.

MALE PARTICIPANT: And the argument that there would be water in Unit 3 is we still see vapor coming off of the Unit 3 building. It's not clear whether that is smoke from a fire or vapor from steaming. There is very little vapor that we see [redacted] 5

[redacted]

CHAIRMAN JACZKO: Okay. Okay. Anything else?

MALE PARTICIPANT: DITTRA delivered five pumps to the site, but they are apparently not using those pumps.

MALE PARTICIPANT: (Inaudible) are the wrong pumps. If you look at the way we -- our estimate of how you would pipe this up --

MALE PARTICIPANT: Right.

MALE PARTICIPANT: -- we are -- our understanding is is you can't -- you can't use their pumps.

MALE PARTICIPANT: The pipes don't meet with the --

MALE PARTICIPANT: It has to be (inaudible).

MALE PARTICIPANT: Yeah.

MALE PARTICIPANT: That's what our staff (inaudible).

MALE PARTICIPANT: I think that request originally happened before we had the more detailed engineering review.

CHAIRMAN JACZKO: Okay.

MALE PARTICIPANT: So, but that's all part of the evolution of our --

CHAIRMAN JACZKO: Yeah. Okay. How is the team in Tokyo?

MALE PARTICIPANT: They seem to be doing okay.

CHAIRMAN JACZKO: Okay. Good.

MALE PARTICIPANT: Chuck did mention that the -- relative to the voluntary departure, that they are getting a lot of takers, both the dependents who are eligible for the free flight out and also they have got about half the space on the charter flight available to other U.S. citizens who can pay a commercial rate to get on those flights. And it sounds like there is -- they've got a crowd standing outside the Embassy with suitcases. They are not getting any shortage of takers.

CHAIRMAN JACZKO: Okay. Is the situation reasonably calm?

MALE PARTICIPANT: That was my sense. They didn't indicate any sense of panic or unrest, but substantial interest.

MALE PARTICIPANT: Their (inaudible) was very crowded. Are we still (inaudible) on the protective active recommendation of evacuation out to 50 miles?

MALE PARTICIPANT: We haven't (inaudible).

MALE PARTICIPANT: Okay.

CHAIRMAN JACZKO: And you are still confident with that number?

MALE PARTICIPANT: Yes.

MALE PARTICIPANT: Yeah.

CHAIRMAN JACZKO: Okay, everybody. And just, again, the 50 miles is based on what -- what radiological scenario?

MALE PARTICIPANT: The 50 miles, when we were talking about it yesterday morning at this time, was based on the radiological scenario involving one spent fuel pool.

CHAIRMAN JACZKO: Okay.

MALE PARTICIPANT: But we have comparable runs with loss of a core from a reactor, right?

MALE PARTICIPANT: Yeah.

MALE PARTICIPANT: So both of those

simulations that we attached in yesterday's press release suggest evacuation out to 50 miles of the approved protective action.

CHAIRMAN JACZKO: Okay. So it's basically kind of both of the possibilities that could go wrong?

MALE PARTICIPANT: Right. Now, it's not the additive effect of there are multiple core releases and multiple spent fuel pools.

CHAIRMAN JACZKO: Right.

MALE PARTICIPANT: I mean, we have those results.

CHAIRMAN JACZKO: (Inaudible) fairly easy to derive.

MALE PARTICIPANT: Right.

CHAIRMAN JACZKO: Add the plots together.

MALE PARTICIPANT: Right.

CHAIRMAN JACZKO: And it doesn't -- you know, again, I mean, if there is no, you know, thermal dynamic effects of the multiple releases simultaneous, which would be highly unlikely --

MALE PARTICIPANT: Right.

CHAIRMAN JACZKO: -- I mean, effectively, you know, it -- that doesn't significantly change that recommendation at this point. And given that there is a voluntary departure at this point, it's, to some

extent, covered.

And there was one -- I just got an e-mail that there was a need to correct (inaudible) need to correct the sit rep.

MALE PARTICIPANT: Yeah, we have already done it.

CHAIRMAN JACZKO: Okay, good.

MALE PARTICIPANT: Yeah.

CHAIRMAN JACZKO: Appreciate it.

MALE PARTICIPANT: And we will reissue it with a new time on it.

CHAIRMAN JACZKO: Okay, good. Okay. Thanks, everybody. And I know you e-mailed me information for (inaudible). Is there a way --

MALE PARTICIPANT: There is also a copy at the gate.

CHAIRMAN JACZKO: There will be a hard copy at the gate?

MALE PARTICIPANT: We got a courier that is meeting Josh at the --

MALE PARTICIPANT: Southwest gate.

MALE PARTICIPANT: -- southwest gate at 7:45 to bring you a brand-new book.

CHAIRMAN JACZKO: Great. Thanks, everybody. I appreciate it.

BILL: Chairman, this is Bill. Can I call you on your cell phone, or are you at home, or --

CHAIRMAN JACZKO: Yeah, you can call me at home. I'll get off this line, and then you -- if you want to call me at home.

BILL: All right. Thanks.

CHAIRMAN JACZKO: Thanks.

MALE PARTICIPANT: Anything else, Chairman?

MALE PARTICIPANT: I think he's off.

MALE PARTICIPANT: Thanks, guys. Appreciate it.

(CONFERENCE CALL INITIATED)

MR. DORMAN: Good morning, everyone. This is Dan Dorman. The status of the facility at Fukushima Daiichi remains pretty much as it was last night. The focus of efforts is primarily on the spent fuel pools, on Units 3 and 4, with the highest priority effort being placed on the Unit 3 spent fuel pool, which appears that may be having a zirconium water reaction, and a possible fire in the spent fuel pool.

The Japanese Self-Defense Force helicopters have been attempting to drop water on that pool several times over the last 12 hours. That does not appear to have any significant effect on the conditions in the Unit 3 spent fuel pool.

The Units 1, 2, and 3 reactor and containment status remains the same. There is seawater injection, to our understanding, to those reactors. They are maintaining a level at about half of the height of the fuel, and there is mixed reports on Units 2 and 3 containments on level of confidence in a primary containment for those two units.

Units 5 and 6 spent fuel pools appear to have cooling established based on the decreasing temperatures in the 5 and 6 spent fuel pools. Within

the last two hours, we are seeing media reports of attempts to establish the water cannon sprays for the Unit 3 spent fuel pool, but we have no information at this point of the potential effectiveness of those efforts.

The Japanese are focused on restoring electric power to the site. They have indicated to our people in Tokyo that they expect to restore electrical power to Units 2, 5, and 6 today, and Units 1, 3, and 4 tomorrow. But we have no information on what they expect to connect that to and what (inaudible) expect them to do and expect in terms of operating equipment with that power. But they are apparently close to restoring some measure of offsite power to the facility.

[redacted]

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About nine hours ago, the DITTRA pumps were delivered to the site. It's not clear that -- how those will be used at this point. There is questions about the discharge head of those pumps and the ability to use those to spray up over the damaged reactor buildings.

[redacted]

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I guess I'll turn to Rob Lewis to cover a couple of items from the protective measures perspective.

MR. LEWIS: Okay. Good morning. I will cover four things that occupied most of the protective measures team time last night. First, there was a flight by NARAC last night, and the flight landed roughly right after midnight. And the data became just available to us about an hour ago, so we're in the process of obtaining and analyzing the data from the (inaudible).

We also are working -- there was a request

coming from last night -- before last evening's shift to develop projections for doses in California. And that is -- has been in process. We will need to -- in order to do that, we will need to engage with -- we already have engaged with the Office of Research. We are looking to engage further with Sandia to make some modifications to the (inaudible) to effectuate those dose estimates in California.

In conjunction with that, there was a DITTRA and NARAC dose estimate that was done for California that we obtained as part of the DOE briefing package. And those were estimating what we believe to be very high doses to children, and a thyroid (inaudible) dosage.

We think that (inaudible) extremely conservative modeling related to those doses and assumptions. It's a thyroid dose that involves deposition of material and (inaudible) integrated the dose over a year or two, for example, drinking milk from the same cow that's grazing on the same contaminated field the entire time, things like that. But once we get the (inaudible), we will have something to compare (inaudible).

Also, when we saw those dose estimates, we looked in the historical record for any kind of

information related to Chernobyl actual deposits that were measured. We did find some and (inaudible) dose activity per area of deposits that were estimated -- I think they were provided from DITTRA.

We did the same dose calculations with those concentrations, and the doses were approximately 1,000 times lower. So we were in the one to 10 millirem range versus full rem range, which was -- full rem thyroid dose range, which was being (inaudible) by DOE and DOE (inaudible).

We also have been working to clarify the assumptions that support the two Rascal runs that are attached to the (inaudible). We looked at the different assumptions behind those two runs, and we think we have developed a good story of why those runs may look a little different to some of our (inaudible).

And, finally, we got some additional site and dose information. Most notably on that is the doses at the main gate area have increased from what we have previously heard. They are in the range of 150 millirem per hour to one rem per hour at the site boundary.

And there is a notable point -- 300 feet above Unit 3 in the air there is a dose reading of

375 R per hour.

So that completes the PMT summary.

MIKE: Rob, this is (inaudible). I have a question for you. This request for doses in California projected with, I guess, worst-case assumptions, is that correct? (Inaudible.)

MR. LEWIS: I believe the doses that we saw from DITTRA represented a source term of 100 percent of the (inaudible).

MIKE: Okay. And where -- is this information being considered for releasing publicly, like we do with the press release?

MR. LEWIS: Which information are you speaking about?

MIKE: I'm talking about these projected dose models, the models that you -- the ones that you are doing and coordinating with other agencies, is there some thought about releasing that publicly?

MR. LEWIS: We have not had that discussion at this time.

MIKE: And don't take that as a suggestion to (inaudible). I'm just curious as to how we came upon doing that with our press release, and then, are we advocating that for any future press releases here for doses in the U.S.?

MR. DORMAN: Mike, this is Dan. No. No, we're not planning any press release with this information. This was a projection that we were requested to run. Separate from our being requested to run that, we got this DOE briefing package that had this other DITTRA run in it, and we're not -- I don't know what prompted theirs or all of the assumptions that went into theirs, but it obviously caught our attention and we are looking to get what we think would be more realistic projections.

Other questions?

MS. HOWE: Dan, just one comment, and Rob. This is Linda Howe in Region IV. Rob, I can talk with you offline about some background information for California. The DITTRA and DOE runs for California may have been prompted by queries from the state, because the state has been conducting interagency conference calls, and DOE, EPA, HHS, has been part of those calls. Our regional state liaison officer is also monitoring that, but there is some background that is politically sensitive that I can share with you offline.

MR. DORMAN: Okay. Thanks, Linda. That's good.

MR. CASTLEMAN: Rob, this is Pat

Castleman. Could we get -- could the Commission offices get copies of the dose projections and plume models that supported the press release and the recommendation that American citizens evacuate out to 50 miles?

MR. LEWIS: Well, you have it on the press release, attached to the press release. Do you want something more than that?

MS. CASTLEMAN: Yeah, more than that. That's kind of sketchy information, so we would like to get a little bit more information, so we can explain to, you know, the Commissioner, so that (inaudible) currently informed.

MR. LEWIS: So a plot of the plume that goes with that?

MS. CASTLEMAN: Yeah, please.

MR. LEWIS: Okay. We'll get that out to the Commission offices.

MS. CASTLEMAN: Thank you.

MR. DORMAN: Okay.

MR. HICKSMAN: This is Tom Hicksman. Could you please repeat the DITTRA projection and our calculation for the thyroid dose rates in California, please?

MR. LEWIS: Well, our calculations are not

done.

MR. HICKSMAN: But you thought that they might be 1,000 times less, or that they are --

MR. LEWIS: Yeah. The DITTRA result was four rem to the thyroid of a one year-old child based on one year integration of uptake. They --

MR. HICKSMAN: I think it --

MR. LEWIS: What we did during the past shift was looked at the actual deposition rates in California from the Chernobyl accident in 1986 and extrapolated that out and came up with a comparable dose rate on the order of one to 10 millirem. So that kind of reinforced our disbelief of the DITTRA number when we saw it. But then, separately, Research is working with Sandia to do a separate run.

MALE PARTICIPANT: Just for clarity, we want to attribute the calculation for NARAC. Okay. It's not (inaudible), it's NARAC -- the calculation.

MR. DORMAN: Any other questions?

MALE PARTICIPANT: And also, to clarify, we don't have a run of it. We just have the output --

MALE PARTICIPANT: Right.

MALE PARTICIPANT: -- that suggests the thyroid doses.

MR. DORMAN: That's all the questions?

(No response.)

That concludes the briefing.

MALE PARTICIPANT: Wait. Hang on. I have another question.

MR. DORMAN: I'm sorry.

MALE PARTICIPANT: This is (inaudible) in Commissioner Ostendorf's office. I had one question.

MR. DORMAN: All right.

MALE PARTICIPANT: Okay. Regarding the sit reps, we're getting them in PDF form, and the thing is if, for example, I'm on the move -- and since other people might be having the same problem -- I can't read the darn thing on my Blackberry. Could we get that in Word format?

MALE PARTICIPANT: We'll take a look at that. We're looking at options on how to best get this out in a useful form.

MALE PARTICIPANT: Thank you.

MALE PARTICIPANT: You may need to use the View Text feature on the Blackberry to read the text in the PDF.

MALE PARTICIPANT: Go to the left button away from the track ball, and go to View Text and it comes right up. On View Text you can read it.

MALE PARTICIPANT: Okay. Thanks. I'll

give that a try.

MALE PARTICIPANT: Good morning. This is (inaudible) in Commissioner Ostendorf's office. I do have a question I got from the Commissioner. And I just joined the bridge, so I apologize if this question has already been asked, and just let me know if it is and I'll check with Mike Sanovich.

[redacted]

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[redacted]

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MALE PARTICIPANT: Okay, thanks. That's very helpful, Dan. I appreciate it. Is there an agency position or response to that, or is that how you described it, that we don't see evidence of how there could be water in the Unit 4 spent fuel pool. However, we acknowledge that the Japanese have --

MR. DORMAN: I think that's the position that we've taken is that our best information does not indicate water in the pool. We would be very happy to be proven wrong.

[redacted]

MALE PARTICIPANT: Okay.

MALE PARTICIPANT: There is reactions I guess to what is being -- you know, what was in the news last night and what's in the papers this morning.

MALE PARTICIPANT: Yeah.

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MALE PARTICIPANT: So --

MALE PARTICIPANT: The bottom line is we are very focused on spent fuel pools for Units 4 and 3.

MALE PARTICIPANT: Okay.

MR. BORCHARDT: Yeah, this is Bill Borchardt. You know, I would hope that we could put this Unit 4 question a little bit in a box, because it's a bit of a red herring in my view. We know there is degraded radiation conditions, and we know there is significant issues with spent fuel pools. All those factors weighed into the 50-mile recommendation.

And the problem right now is the Unit 3 spent fuel pool is sitting -- may be more than Unit 4. And if it turns out we were wrong, that would be great news. But based on the information we had at that time, and, in fact, that we still have, we think Unit 4 was dry.

MALE PARTICIPANT: Thank you. Thank you, Bill. That's helpful. I'll go over that with the Commissioner when he gets in. Thank you.

MR. DORMAN: Any other questions?

(No response.)

All right. Thank you.

(CONFERENCE CALL INITIATED)

MALE PARTICIPANT: The discussion that we were having is that the Rascal runs that were attached to yesterday's press release were different than the Rascal runs that were done overnight last night, because the ones that are attached actually show doses exceeding the five R at 50 miles.

But, you know, I think it goes to the point of you can do many different simulations, and all of those simulations suggest you have a problem out to 50 miles.

MALE PARTICIPANT: Absolutely not a problem.

MALE PARTICIPANT: Right.

FEMALE PARTICIPANT: Right.

MALE PARTICIPANT: So I think we're okay.

MALE PARTICIPANT: Well, the Chairman made the decision he wanted (inaudible), I think his thinking was get out (inaudible) --

MALE PARTICIPANT: Right.

MALE PARTICIPANT: -- running different models.

MALE PARTICIPANT: And he did (inaudible) that we had to have a technical basis for, why are we saying 50 miles? Well, we had a technical basis.

MALE PARTICIPANT: There were any number of scenarios that you could have used to support the 50 miles.

FEMALE PARTICIPANT: That's right. But the general questions are now, the information to support (inaudible).

MALE PARTICIPANT: (Inaudible.)

MALE PARTICIPANT: Mike, are you going --

MIKE: Yes. I'm not going (inaudible). I'm going to a (inaudible).

MALE PARTICIPANT: You're supportive for this call.

FEMALE PARTICIPANT: Usually for the (inaudible) I don't have to go. It's up to you. I mean --

MALE PARTICIPANT: I don't think you need to go. I don't -- I'm not sure it's productive.

FEMALE PARTICIPANT: I think (inaudible).

MALE PARTICIPANT: We would rather have you here.

FEMALE PARTICIPANT: You can give me information from the call and --

MALE PARTICIPANT: We're not going to get into any detail.

FEMALE PARTICIPANT: No, no, no.

MALE PARTICIPANT: But if they have --

FEMALE PARTICIPANT: Remember Warren's question yesterday?

MALE PARTICIPANT: Yeah.

FEMALE PARTICIPANT: Okay. I got that at 10:00 yesterday.

[redacted]

MALE PARTICIPANT: Yes.

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FEMALE PARTICIPANT: Nothing from them in 36 hours. That's my point.

MALE PARTICIPANT: Well, it's not 36 hours. They did just the overflight. Is that what you're talking about?

FEMALE PARTICIPANT: No. No. And we do not have the information --

MALE PARTICIPANT: Okay.

FEMALE PARTICIPANT: -- on overflight. So --

MALE PARTICIPANT: Work it back through the stages and contacts.

FEMALE PARTICIPANT: I think we have worked it back, and we still don't have any --

MALE PARTICIPANT: If you can't, then I'll escalate it, but outside this call.

FEMALE PARTICIPANT: And we would like you to do that.

MALE PARTICIPANT: Okay.

FEMALE PARTICIPANT: I'll give you a call.

MALE PARTICIPANT: Let me know how to call.

MALE PARTICIPANT: All right.

(Multiple inaudible speakers.)

MALE PARTICIPANT: Bill, are you still on

there? Do you want us to keep this line open?

(No response.)

FEMALE PARTICIPANT: There was a number of them in (inaudible) that didn't agree with the Chairman --

(CONFERENCE CALL INITIATED)

MR. McDERMOTT: Josh, this is Brian McDermott.

JOSH: Hey, Brian, real quick. I'm giving you from the Chairman a cease and desist on the modeling that we started to attempt to do yesterday with the MACS code to get all the way to the U.S.

MR. McDERMOTT: Okay.

JOSH: We don't need to pursue -- we would like to stop pursuing that. We don't need to do that anymore.

MR. McDERMOTT: Okay.

JOSH: Copy?

MR. McDERMOTT: I copy.

JOSH: All right. We'll follow up -- I can follow up more after the call.

MR. McDERMOTT: Okay. Yeah, I'd like to understand. Thank you.

JOSH: Yeah. Yeah, yeah, yeah, yeah.

MR. McDERMOTT: Okay.

JOSH: Thanks.

MR. McDERMOTT: Bye.

(CONFERENCE CALL INITIATED)

JOSH: Hello?

BRIAN: Hey, Josh. We've got Charlie and Brian here.

JOSH: Hi, guys. How are you? So two quick things. One, Brian, to follow up on the earlier call, we've got much better and more accurate modeling from DOE. So I believe -- I think that is kind of some of the reasoning behind not having to continue to put our resources on that.

BRIAN: Josh, I want to just ask about that, because, you know, number one, we didn't -- we didn't really -- I wasn't in on the original request to have Research start doing stuff. But as a matter of principle and federal policy, you know, there is supposed to be one modeling and analysis center --

JOSH: Right.

BRIAN: -- with NARAC.

JOSH: Right.

BRIAN: And if that's the same as you mean with DOE, then we are in sync. If it's not --

JOSH: Yeah, yeah, yeah. Yeah. I believe it is, yeah.

BRIAN: Okay.

CHARLIE: Josh, this is Charlie. We're on

the line with you here.

JOSH: Okay, great. Thank you.

Okay. So the other issue is -- the Chairman just reported out in the meeting, which is still ongoing, what our information is about their efforts to restore power today on 2, 5, and 6, and by tomorrow on 1, 3, and 4.

BRIAN: Yes.

JOSH: And then, that assumes -- assuming that the equipment is still functioning that would be a good sign. And then, a moment later in the call we got some conflicting information about how successful and how long that would take. So can you talk me through, in 30 seconds, where we got that information and why we think that and how likely we think that is to be successful?

MALE PARTICIPANT: I know it's being reported on the news, and I think that that also -- we heard that through the team, but we have no specifics on it.

MALE PARTICIPANT: I can't verify the source, Josh. But with regard to the likelihood of success, we are skeptical -- I've got to be honest -- because I think our concern is not that they can't get power there, but whether or not they have the switch

gear and things like that, how much that has been damaged with regard to being able to energize --

MALE PARTICIPANT: Right.

MALE PARTICIPANT: -- the power source. So it remains to be seen.

JOSH: Can you -- okay. So we can't (inaudible) the source of power -- timing we got from the news and from the team, so you are skeptical of success.

MALE PARTICIPANT: That's at least where we are today.

MALE PARTICIPANT: Skeptical from the concern perspective given what we know is the damage at the site.

MALE PARTICIPANT: Right. Before they had explosions, all right, there were reports of damage to the switch gear, and so forth, from the water from the tsunami. That was one report out of, you know, many that we heard over the last days. But that was even before they had these hydrogen explosions.

So, you know, the condition of the box work, what you have to do, it's certainly possible to restore it. But we just don't have that kind of detailed information to be able to say with assurance that, you know, once they get the offsite power there,

they will be able to distribute it onsite effectively.

JOSH: So that sounds like an operation that would take longer. Like what's a realistic amount of time if everything was fine and you were going in there and just kind of starting from scratch with the state of the equipment as it stands now?

MALE PARTICIPANT: Are you talking about repairing damaged switch gear?

MALE PARTICIPANT: Or buses?

MALE PARTICIPANT: Or buses?

JOSH: Yeah.

MALE PARTICIPANT: I mean, that -- that would -- may not be practical given the radiation level.

JOSH: If you didn't have radiation.

MALE PARTICIPANT: Right. If we didn't have radiation, it would still take a considerable amount of --

MALE PARTICIPANT: It would take hours.

MALE PARTICIPANT: Yeah.

JOSH: Hours or days?

MALE PARTICIPANT: First of all, you would have to have the equipment --

MALE PARTICIPANT: Hours to days.

MALE PARTICIPANT: Yeah.

JOSH: Okay.

MALE PARTICIPANT: Yeah.

JOSH: And that would be, you know, cobbling things together I would think. But, you know --

MALE PARTICIPANT: Josh, this is really speculation here, because we have -- all we are looking at is at the outside of the plant and trying to guess what is on the inside.

MALE PARTICIPANT: And whether or not even from the switch gear any cabling that would carry that is even intact or --

JOSH: Okay.

MALE PARTICIPANT: Just to give you an idea, the -- again, different BWRs, it will depend on where the switch gear room was located, too.

JOSH: Right.

MALE PARTICIPANT: I'm thinking two BWRs I'm familiar with --

MALE PARTICIPANT: Right.

MALE PARTICIPANT: -- newer ones.

MALE PARTICIPANT: Right.

MALE PARTICIPANT: You know, the switch gear is halfway up the reactor building. We've seen pictures of some of those units, and we're going,

"Wow, they're all blown out."

MALE PARTICIPANT: There's nothing there.

MALE PARTICIPANT: So --

JOSH: Is there any way to quickly ask the team where they got that information?

MALE PARTICIPANT: I can -- we can go ask the RC, yes.

MALE PARTICIPANT: Yes, we can go see --

JOSH: Okay.

MALE PARTICIPANT: Yeah.

MALE PARTICIPANT: We have somebody going back to get them right now.

JOSH: Great. Thank you.

MALE PARTICIPANT: Josh, while we're waiting, if you get a chance to talk to the Chairman --

JOSH: Yes.

MALE PARTICIPANT: -- the request from our end, from the PMT, of course, you know, we are waiting for a lot to run through NARAC. We're not getting priority, you know, and so -- there's aerial data that -- the runs that we needed to have done, we are not get priority for it. So that's just an FYI. We've been waiting quite a while to get that back.

JOSH: Say it again exactly, how he would

say it.

MALE PARTICIPANT: Okay.

JOSH: We are not getting priority from --

MALE PARTICIPANT: We are not getting priority from NARAC through I guess NIT, which is -- this comes out of the Agostino (phonetic) shop, as I understand it.

JOSH: Okay.

MALE PARTICIPANT: And others are getting priority. Now, these may be requests from the White House or from NMSA, or whatever, but --

JOSH: Not get priority from NARAC to --

MALE PARTICIPANT: To get the runs done that we need to have done. They have put us in a queue, but others are higher in the queue. So we're not getting the information back that we need.

JOSH: For what? What is it that we're doing?

MALE PARTICIPANT: These are runs that are done to try to do dose projections out beyond 50 miles, including as far as the U.S. coast.

MALE PARTICIPANT: Now, Josh, if they're prioritizing the runs they need to make assessments for Tokyo --

MALE PARTICIPANT: Right.

MALE PARTICIPANT: -- for the wind shift over the weekend --

MALE PARTICIPANT: Yes. But we don't know --

MALE PARTICIPANT: -- but we don't know.

MALE PARTICIPANT: We don't have enough information to know what is top priority in the queue and where we are in the queue.

JOSH: Okay.

MALE PARTICIPANT: We put a request in. They simply said, "We'll get to them when we get to them."

JOSH: Okay. But like I said, we don't need to go out to the U.S., because, at this point, that is being done by then.

MALE PARTICIPANT: Unfortunately, what our concern is is the calculations are showing extremely high doses, and we don't think they are credible.

JOSH: No, no, no. They have -- that has been corrected.

MALE PARTICIPANT: Okay. Well, we hadn't seen that.

JOSH: Okay. Okay. So having that information, do we still need priority for our runs for Japan protective action recommendation

information?

MALE PARTICIPANT: I would say yes. Now, since they are (inaudible) this would be important to know with regard to whether we would recommend augmenting the decision that was made yesterday to go out to 50 miles. That question is going to come up.

JOSH: Okay. Got it.

MALE PARTICIPANT: We can't answer that question without this.

JOSH: Got it. Okay. Any news from this team?

MALE PARTICIPANT: They haven't come back in yet. Let me see what I can find out. Brian is going back to see if he can get anything.

MALE PARTICIPANT: He's trying to get it.

JOSH: Thank you.

Charlie, how is everybody there? Are they doing okay?

CHARLIE: Yeah. They're doing the best they can under the conditions. Everybody is still working hard. We've got very dedicated people that --

JOSH: Absolutely.

MALE PARTICIPANT: All right. Laura (inaudible) just walked in.

JOSH: Hi, Laura.

LAURA: Hello.

MALE PARTICIPANT: It's Josh.

LAURA: Hi, Josh. I understand your question, and I -- I just talked to Tim Cole, who is our contact in the Embassy right now. And what he knows I think is similar to what you know, is that sometime tonight they expect to get one power source. I think they are focused on Unit 2.

There is some information, although I have not been able to confirm it, that they did check the switch gear and they should be able to get that first power source going on Unit 2, and then they expect a possible second source sometime tomorrow -- tomorrow in Japan. So that's all they knew at this moment.

MALE PARTICIPANT: Josh is interested -- you know, the switch gear is damaged. How long would it take to get it replaced? That's not an easy thing to do.

LAURA: Yeah. And --

MALE PARTICIPANT: It may take days or weeks to do something about that.

LAURA: Yeah.

MALE PARTICIPANT: (Inaudible) area that's not hot.

LAURA: Right.

JOSH: So you're saying we have conflicting information, that the switch gear might be okay?

LAURA: Yeah, that's what I heard. But I haven't confirmed that. So -- but there is an expectation that some of the switch gears on the lower level may have been flooded, but there are -- the switch gear in the control building that should be --

MALE PARTICIPANT: Right. That's what I just happened to (inaudible), too, so --

LAURA: Yeah.

MALE PARTICIPANT: -- TEPCO is trying to bring in 6.1 kV.

LAURA: Yeah.

MALE PARTICIPANT: By our best guess, the emergency buses are in the lower level of the control building, which would be similar to like a Vermont Yankee (inaudible). The buses that were flooded, that we heard about earlier, were in the turbine building.

LAURA: Turbine building, right.

MALE PARTICIPANT: So that's what we're hearing from our guys on the ground.

JOSH: Okay. That's -- okay, (inaudible) that down for me. There are emergency buses in the basement of the building which might be okay, and the

turbine building no?

MALE PARTICIPANT: Correct. The building that we -- they say the operators are in the control room, so --

LAURA: Yes.

MALE PARTICIPANT: -- presumably that building is okay.

JOSH: Here is what I am getting. Tell me if this is okay. We can't verify the source of the timing to restore power. It's from the news and from our team, though. We are skeptical of success, because the damage at the site -- there is damage to some switch gear.

MALE PARTICIPANT: Non-safety-related.

JOSH: The damage is to the non-safety-related?

MALE PARTICIPANT: Right. That would be the stuff in the turbine building.

JOSH: Okay. So we think the safety-related switch gear is okay.

MALE PARTICIPANT: Well, we don't know, but we know some of it -- if it's in the control -- there is speculation, Josh.

LAURA: Yes, I --

JOSH: I know, I know. I know.

LAURA: Yeah. We -- we anticipate, or we think, that the safety-related switch gear may be operational.

MALE PARTICIPANT: Okay. And then, you've got to understand that, you know, that is connected to stuff out in the plant that is likely damaged.

MALE PARTICIPANT: Right.

MALE PARTICIPANT: They've got to go through a process of opening up all the breakers to the stuff that wouldn't be damaged, and then trying to get power to something that they thought was good, and then you don't know what happened to the cable run between the switch gear and the equipment.

JOSH: Right.

MALE PARTICIPANT: So there is a lot of uncertainty.

MALE PARTICIPANT: That's why we remain skeptical, or "uncertain" might be the better word.

MALE PARTICIPANT: Yes.

JOSH: Can't verify source of timing on power restoration. It's from news and what our team is being told by TEPCO?

LAURA: Yes.

JOSH: What our team is being told by TEPCO, conflicting reports on condition of safety-

related electrical equipment.

MALE PARTICIPANT: I think -- I don't know about conflicting, it's just uncertainty regarding the condition of --

JOSH: Uncertainty regarding condition of what? Electrical --

MALE PARTICIPANT: Distribution.

JOSH: -- electrical distribution equipment.

MALE PARTICIPANT: Capability.

LAURA: Yes.

MALE PARTICIPANT: Electrical distribution capability.

LAURA: And then, you know, it's -- there's got to be a pump somewhere that works.

JOSH: Okay. Hold on. Okay. So skeptical -- so that sum is -- the punchline is skeptical of success.

MALE PARTICIPANT: Uncertain of success. I'd avoid using the word "skeptical," because that would imply we --

JOSH: That's a value judgment. Right, that's a value judgment. We're not making a value judgment.

MALE PARTICIPANT: Right.

JOSH: We're uncertain of success.

MALE PARTICIPANT: Right.

JOSH: And it would take hours to days, best case, right?

MALE PARTICIPANT: Yes.

JOSH: Best case. Okay. Perfect. Thanks guys, appreciate it.

MALE PARTICIPANT: All right, Josh.

JOSH: Talk to you later.

(CONFERENCE CALL INITIATED)

MR. COLE: Hello?

MR. MILLER: Yes.

MR. COLE: Hello. This is Tim Cole.

MR. MILLER: Yes, Tim. This is Charlie Miller.

MR. COLE: Charlie, I got something that we went to a meeting tonight, and we met with the military personnel here in Japan that are helping coordinate the actions right now that are taking actions to pump fire truck water into the Unit 3 spent fuel pool.

Now, these are the guys that are actually doing the work now, so the [redacted] I will be meeting with them again tomorrow, but one thing that they are looking for, hopefully you can help me out with, is [redacted] from like this moment on for the next three days, what is the priorities.

And, I mean, like spent fuel pool number 3 is the first priority, get water on that. Then, move to number 4, or any type of priorities we can give them, so that they focus on the right things. Is there any help you can give us here to kind of give

them some suggestions? [redacted]

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MALE PARTICIPANT: We'll get the reactor safety team right on it. Do we have -- this is a tough question. Do we have any information concerning the switch gear? We are hearing different stories, and we hear they are trying to run cable to the plant. But there is questions from the Chairman's office concerning what it would take to get that energized. We told them it was uncertain.

MALE PARTICIPANT: Or what it's going to buy them.

MALE PARTICIPANT: Or what it buys them. So anything you can get on that would be helpful to us.

MR. COLE: Okay. You need any information as far as what power supplies --

MALE PARTICIPANT: Is it -- is there information available to say that might be a successful way to get water somewhere if you can get pumps running?

MR. COLE: Correct. I mean, they're not just working on one. This is TEPCO people. The military is working on whatever their priority is.

MALE PARTICIPANT: Okay. You're looking

for priorities for the military and where they need to get water first --

MR. COLE: That's correct.

MALE PARTICIPANT: -- second and third. All right.

MR. COLE: And we are going to be in a meeting with them tomorrow to -- they want help from the NRC on -- are they doing the right thing to get -- because [redacted] right now, but I think maybe the Ambassador and the Chairman may be helping out with that.

LAURA: Hey --

MR. COLE: So anyway --

LAURA: Oh, sorry.

MR. COLE: Go ahead. Anyway, that's what we're looking -- just a general direction to go for them.

MALE PARTICIPANT: General direction, okay.

MR. COLE: Okay?

MALE PARTICIPANT: And that's specific to using their trucks that spray water.

MR. COLE: No. They're doing that now. Like they want to know specifically, like this equipment that's coming in, we're lining that part up

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ourselves already. They are going to -- they can do that in parallel, but they want to make sure that when they -- they send dose to these people, that it's on the right focused area for that -- that's the most urgent need. So that's what I'm looking at as far as, you know, they are burning these people out, and is it on the right thing? So --

MALE PARTICIPANT: Yeah.

MR. COLE: You know, this is -- and this is -- they have been asking help for long-term-wise, but long-term-wise that's a different story. I just need something so they can work on for the next two days, three days, whatever you can give me. And we'll --

MALE PARTICIPANT: (Inaudible) getting these pumping mechanisms to get seawater in that we have been trying to work on, or not?

MR. COLE: No. They can already support that as far as moving it. No, it's actions to take to counteract all the radiation, to make sure we don't have any more fuel melting anywhere, those actions.

LAURA: Tim, we're working up a -- what we have. We were just on the call with you -- this is Laura -- a few moments ago. So we are taking all of the plan A, plan B, plan C, in terms of getting water

up there, plan A being the big pumping system and the logistics associated with that.

And also, we are going to include recommendations on fielding and other activities. So, you know, I think the team is working on all three of those simultaneously right now, and we should be able to get something to you in short order.

MR. COLE: Okay. That's great. I will feed that along to them. So that would be -- coincide with what we're telling them here as far as recommending things that they might want to think about doing. Okay.

Okay. So any other questions? I know I need to get back to you on power supplies, if we can give you any information.

LAURA: Yeah. I mean, I guess --

MALE PARTICIPANT: It's also helpful if we can get any updated information for exactly what is being done now to try to get water anywhere.

LAURA: Yeah. I did get a confirmation, actually, just a moment ago, although, you know, everything is sketchy. But we have a Naval Reactors person embedded now with the RST who on their morning call this morning -- this is a guy named -- by the name of (inaudible) Mueller, who is in Yokuska Naval

Base in Japan, according to the NR morning call, they said that the pumps that were delivered yesterday are onsite and being used to put water into the reactor. I can't confirm that, but that was what I got from NR.

MALE PARTICIPANT: Yes. They do have those pumpers onsite and in stand-by. I don't know that they have used them yet. But if their equipment isn't working, yes, they will use those as necessary. They are available.

LAURA: All right. So these diesel-driven pumps are already staged onsite.

MALE PARTICIPANT: They are staged -- I'm talking about fire trucks, the fire trucks that you guys -- somebody sent to the site. They have them there.

Now, the diesel pumps, yes, they have that equipment. I think it's staged in their staging area outside the plant and --

LAURA: Right.

MALE PARTICIPANT: -- they are trying to -- you know, they will use that as they can get the equipment to use it on something.

MALE PARTICIPANT: Yes, but --

MALE PARTICIPANT: Yes, they have the equipment.

MALE PARTICIPANT: Yes. We've got some uncertain information as to the ability of that equipment to function in the (inaudible) to the piping that is necessary. So --

MALE PARTICIPANT: I don't know that detail, whether or not they have had issues with that, so --

MALE PARTICIPANT: So, again, you know, we wouldn't want to recommend that somebody go spend (inaudible) on something like that, if it's not going to make it operable.

LAURA: Correct.

MALE PARTICIPANT: Right.

LAURA: Now, you've got to test it and connect it --

MALE PARTICIPANT: Yeah.

LAURA: -- ahead of time and know how long it takes to connect it when they're out there --

MALE PARTICIPANT: Right.

LAURA: -- and what you have to do. In fact, for plan A, on this one, we almost need -- I mean, as part of -- this is their timing in terms of that longer term pumping system, the four loops, because we can't have them go bring that onsite until they have staged it and fully tested it, so that it

arrives almost as a kit --

MALE PARTICIPANT: Correct.

LAURA: -- that someone can try on. So we are aware of all those issues, and we are trying to get the right people and the right steps to provide for that.

MALE PARTICIPANT: Okay. Obviously, this meeting that we are having tomorrow morning, we will get more info as far as what roadblocks or what -- any other additional support as far as getting this equipment running and going. So --

MALE PARTICIPANT: Okay.

MALE PARTICIPANT: -- whatever you can -- whatever help we can provide --

MALE PARTICIPANT: Right.

MALE PARTICIPANT: -- they will figure out how to use it.

MALE PARTICIPANT: Okay. So what really -- all I'm asking is -- what I need is some type of a general --

MALE PARTICIPANT: Priority.

MALE PARTICIPANT: -- path forward, and, you know, just so when I speak to these people and not recommend, but suggest options that they have available, or recommendations, whatever, that we can

-- that we can -- we think that's the right path for the site. You know what I mean?

MALE PARTICIPANT: Yeah. And, I mean, but from our end is we'll help with (inaudible) as we go forward. You know, we're operating on the knowledge that we have given the condition of the reactors and the spent fuel pools.

MALE PARTICIPANT: Yeah. And I --

MALE PARTICIPANT: If we get any more information that is reliable that is critical to us in ordering the prioritization --

MALE PARTICIPANT: And one thing we did learn tonight is the -- I guess the rumor was that Unit 2 containment might be breached or whatever. You know, they said tonight, no, that's not the case. All their pressure indications indicate that it's not leaking at all.

MALE PARTICIPANT: Okay.

MALE PARTICIPANT: So, obviously, that loud noise they thought was when Unit 4 blew up, that somebody heard that and thought it was the containment. So, anyway, that's their theory, but --

MALE PARTICIPANT: They are saying the Unit 2 containment is still intact.

MALE PARTICIPANT: That's correct.

MALE PARTICIPANT: And "they" being TEPCO?

MALE PARTICIPANT: TEPCO, the people that are at the plant running it.

MALE PARTICIPANT: Okay. Okay. Anything you could send me. Yes?

LAURA: Tim, one item -- and it's not -- just for the next time, I think we will be in touch with you or -- are you getting to bed any time?

MR. COLE: I'm going pretty soon. It'll probably be Rick Deaver-Chelley (phonetic) will be on the call at 1:00 in the morning. Or, no, I think it's 2:00 our time.

LAURA: Okay. All right.

MR. COLE: Four hours from now.

MALE PARTICIPANT: All right. So currently it's 10:30 your time, right, Tim?

MR. COLE: Yes. So, well, I'm going to write up a little -- you know what you can do. Hey, what's the best e-mail to send something to us here, besides my e-mail?

MALE PARTICIPANT: Yeah. How do we reach for (inaudible) information?

MR. COLE: Well, I want Deaver-Chelley (phonetic) to get this little plan.

MALE PARTICIPANT: Yes. (Inaudible.)

MR. COLE: Hey, Laura?

LAURA: Yes?

MR. COLE: Can you -- when this get this plan written together for the phone call, whatever information you have that we talked about earlier --

LAURA: Yes.

MR. COLE: -- if you get that in writing, if you could e-mail that to Rick Deaver-Chelley at nrc.gov, you know that -- his e-mail, I'll write it up.

LAURA: Can you spell his name?

MR. COLE: What?

LAURA: I'll figure it out.

MR. COLE: Rick might not be his total e-mail, but anyway -- e-mail that to him and me both, and then that way I don't have to sit here and write this up for the next hour and --

LAURA: Okay, yeah. So, and then he will be our contact through the day -- our day, your night.

MR. COLE: Yes. So he will be on the 2:00 phone call.

MALE PARTICIPANT: Okay.

LAURA: All right.

MR. COLE: So I will be back in probably at 6:00, 6:00 in the morning, so I'll be looking for

that e-mail as far as the path forward. And if I've got any questions, I'll call you guys back.

MALE PARTICIPANT: Very good.

MR. COLE: And that's -- I think that's all I need for now.

MALE PARTICIPANT: All right. Thank you. Get some rest.

MR. COLE: Thank you.

MALE PARTICIPANT: Okay.

LAURA: Thank you.

(CONFERENCE CALL INITIATED)

MIKE: Chairman?

CHAIRMAN JACZKO: Hi. Is this Mike?

MIKE: This is Mike.

CHAIRMAN JACZKO: Okay. Hey, Mike, I know you were listening in on the call. I'm going to talk to DOE, Dan Tonoman (phonetic), and suggest that we put together a group at least that communicates once a day or at least we have good communication, and a group that would include INPO, DOE, Naval Reactors, and ourselves, to coordinate various industry and other kind of requests or offers of assistance, so that ultimately we can coordinate that and get it to the team in Tokyo. Does that make sense?

MIKE: Yeah.

CHAIRMAN JACZKO: Okay. So I just talked to [redacted] He is comfortable with that. I know we are communicating very well with them, so maybe -- and I think we are also communicating very well with Naval Reactors. So the idea might be to just get that -- get DOE pulled into that group, so we can keep things coordinated.

MIKE: That would be beneficial. We have a Naval Reactors individual here now working with us around the clock.

CHAIRMAN JACZKO: Oh, great.

MALE PARTICIPANT: (Inaudible.)

MALE PARTICIPANT: And DOE.

MALE PARTICIPANT: And DOE.

CHAIRMAN JACZKO: Oh, we do. Okay, good.

MALE PARTICIPANT: We are about to have our daily call with INPO.

CHAIRMAN JACZKO: Okay, good.

MALE PARTICIPANT: So, like you said, we are working well, but this will bring DOE more into the fold.

CHAIRMAN JACZKO: Yeah. Okay, good. Good. Well, I'll talk to Dan Tonoman about that, and then maybe I'll just have him -- or maybe have him go to Pete Lyons and have Pete Lyons reach out to you, and then figure out how to get that all set up.

MIKE: Okay.

CHAIRMAN JACZKO: Okay.

MIKE: All right. And we are chasing down today versus tomorrow.

CHAIRMAN JACZKO: Okay, good.

MIKE: Laura said that "today" means today in Japan.

CHAIRMAN JACZKO: Okay.

MIKE: So that --

CHAIRMAN JACZKO: Okay.

MIKE: -- is within the next hour or so, but that's what we understood from our team on the ground in Japan.

CHAIRMAN JACZKO: Okay, good.

MIKE: So do you feel the need to get back to [redacted] with that information?

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CHAIRMAN JACZKO: I don't think so. Let's just, in the next sit rep, let's just maybe put that with a greater clarification on the next report.

MIKE: Okay.

CHAIRMAN JACZKO: I think that's sufficient.

MIKE: Okay.

CHAIRMAN JACZKO: Anything else? We don't have congressional affairs there at all, do we?

MIKE: We have somebody from congressional affairs on our liaison team.

CHAIRMAN JACZKO: Okay, great. Oh, yeah, that's the other thing. So they are going to do state interactions? You got that from the call?

MIKE: Right. I briefed the teams on that.

CHAIRMAN JACZKO: And I think -- so I think what we probably would want to do is not

necessarily do an independent effort on our part. But if we get our stage liaison officers calling in, that we -- we try and funnel that to the one -- the one kind of U.S. Government interaction. I think that will be -- that will be easier and it will take a little bit of load off of us. Does that make sense?

MIKE: Yeah, that does make sense. We were going to try to participate as part of that call, so we understand --

CHAIRMAN JACZKO: Good, excellent.

MIKE: -- what is being shared.

CHAIRMAN JACZKO: Perfect.

MIKE: And if we get contacted separately by our SLOs, we will have that information to share back with them. But we will encourage them, to the extent we can, to work through that one call.

CHAIRMAN JACZKO: Okay, good. Perfect. Can you get congressional?

MIKE: Yes. David Decker is here.

CHAIRMAN JACZKO: Hey, David.

MR. DECKER: Yes.

CHAIRMAN JACZKO: Can we make sure that we've got a consistent congressional outreach, either at least maybe daily briefings or something to that effect? Do you know if that is going on?

MR. DECKER: I don't know, but I will call back and find out and get that up, yeah.

MALE PARTICIPANT: Chairman, we are --

CHAIRMAN JACZKO: Okay.

MALE PARTICIPANT: -- participating as part of the USAID daily call, which is at 2:00.

MALE PARTICIPANT: Okay. Okay, good.

MR. DECKER: And staffers know about that.

MALE PARTICIPANT: Chairman, this is (inaudible) calling -- talking. Becky just came back from a morning meeting, and efforts are underway to establish daily briefings for the Hill staffers.

CHAIRMAN JACZKO: Okay, great.

MALE PARTICIPANT: Separate from AID?

MALE PARTICIPANT: Yes, separate from AID.

CHAIRMAN JACZKO: Okay. And I think that's okay. We probably still want to participate in the AID, but I think having a separate one for us is okay as well, because we do have a slightly separate role in activities that are not necessarily -- not necessarily, you know, related to the Japan issue, but there is some work we have to start doing, communicating kind of our going forward actions and things like that, which of course are independent.

So I think that's okay -- to do that

separate briefing. But I think we should still continue to participate in the AID call as well.

BILL: This is Bill. Chairman, you know we have a 9:30 EPW staff briefing tomorrow morning.

CHAIRMAN JACZKO: Okay, great. Excellent.

MALE PARTICIPANT: Chairman, one of the issues has arisen this morning is meeting with our people on the ground in Tokyo with their Ministry of Defense.

CHAIRMAN JACZKO: Okay.

MALE PARTICIPANT: And what they are asking for is for NRC staff to identify their priorities for recontrolling the plant --

CHAIRMAN JACZKO: Okay.

MALE PARTICIPANT: -- and the spent fuel pool.

CHAIRMAN JACZKO: Okay.

MALE PARTICIPANT: And that will put us in the position of providing advice. And what they tell us is that they will take our advice on what their priorities need to be.

CHAIRMAN JACZKO: Okay, good.

MALE PARTICIPANT: Are you comfortable being in that position?

MALE PARTICIPANT: Normally, we're not --

CHAIRMAN JACZKO: Yes.

[redacted]

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CHAIRMAN JACZKO: Okay. Well, then give them the best information that we think we can. Okay?

MALE PARTICIPANT: And then, obviously, sir, the challenge is we have inconsistent and conflicting information. Even our people on the ground don't have absolute understanding, obviously, of what is going on with those --

CHAIRMAN JACZKO: Yes.

MALE PARTICIPANT: -- (inaudible). So I think we will encourage our team that whatever they provide they need to provide that caveat that, you know, this is to the best of our understanding. If we were in a similar situation, we would expect our licensees to take the following actions.

CHAIRMAN JACZKO: Yes, that's fine.

[redacted]

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[redacted]

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MALE PARTICIPANT: Yes, sir. Understood.

BILL: Chairman, this is Bill. I have one quick other thing for you.

CHAIRMAN JACZKO: Sure.

BILL: Is there a number I can call you at?

CHAIRMAN JACZKO: Yes. Can I -- I'm trying to do a call with Congresswoman Lowey (phonetic) and then with Dan Tonoman. Can you wait about 15 minutes?

BILL: Yeah. I'll call you in about a half hour, then.

CHAIRMAN JACZKO: Okay, good. Thanks.

BILL: Bye.

CHAIRMAN JACZKO: And call my cell.

BILL: Okay. Bye.

(CONFERENCE CALL INITIATED)

[redacted]

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MALE PARTICIPANT: Yeah. I mean, that's consistent with what we tried to tell Josh.

MALE PARTICIPANT: Right.

MALE PARTICIPANT: Days, weeks.

MALE PARTICIPANT: Right.

MALE PARTICIPANT: Not knowing the exact nature of the damage to the switch gear.

MALE PARTICIPANT: And operating in a high rad field.

MALE PARTICIPANT: And operating in a high rad field, even if the switch gear is in place, and what is the condition of the cabling, which would --

MALE PARTICIPANT: Right.

MALE PARTICIPANT: -- activate the equipment.

MALE PARTICIPANT: A lot of unknowns there that will impact --

[redacted]

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We got into a discussion about -- from other agencies, what they know, what they don't know from [redacted] I won't go over that. They (inaudible).

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[redacted]

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And then, throughout the call, from that

point on, there was a chorus of voluntary departure, and also this will have no impact on the ongoing support that the U.S. is providing for the Japanese.

[redacted]

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There was a confirmation that the boron shipment has been arranged, so the 20,000 pounds from Diablo Canyon is going to depart from McChord Air Force Base at 1600 Zulu. That's in an hour and 50 minutes. And it should arrive in Japan at 0900 Zulu on the 19th. So -- okay. I know they were trying to track that down yesterday -- whether they were interested in that, whether they could use it --

MALE PARTICIPANT: Right, right.

MALE PARTICIPANT: So that was (inaudible). We talked about the fruitful discussion between the Ministry of Defense and our team. That was brought up as a very positive development that came from the Department of Defense side. So I guess they are hearing that back from their counterparts, you know, and their liaison with their counterparts, and they said that, yes, they had a very good discussion with the NRC team in Japan. So we are moving on that.

The Chairman at that point encouraged that our team be that central focal point for providing the technical assistance to our Japanese counterparts. And they disagree on that, so they agreed that they would take that offline, which is I presume why he is having as discussion with the Deputy Secretary.

But, you know, he I think very eloquently stated that it will help to have one central focus and not, well, how about you do this over here, and how about you do this over here, and --

MALE PARTICIPANT: Yeah. I want to get to that when you're done.

MALE PARTICIPANT: Okay. I've already covered that. [redacted]

[redacted]

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[redacted]

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[redacted]

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MIKE CASE: Hopefully, that will be supported [redacted]

MR. CASTO: Certainly. Well, you know, it's -- just to expound on that a little bit. Let me tell you, DOE, DART, US Force, I mean aircraft carriers, [redacted] -- I mean, this is a huge -- the NRC, obviously, I think has been the focal point of it, but there are a lot of people doing a lot of work related to it.

MIKE CASE: And that's great, and we appreciate what you're doing. They did talk about dosimetry, that all the DOD, DOE, and NRC people in the team in country are badged and have appropriate dosimetry. And that NRC and others are helping the DART team arrange the appropriate protocols for

dosimetry of the staff that are there.

They are scrambling somewhat within the Department of Defense to arrange for appropriate dosimetry. In some cases, they're area dosimetry for some of the ground troops, but that's the best they can do until they can actually equip all the individuals with the --

HHS came out with a CDC fact sheet on health risks to individuals in Tokyo. Apparently, it's posted on their website. They were going to get around the web address, but I'm sure if it's posted it ought to be pretty prominent. So, I would suggest we pull that up.

They did have a call yesterday with the State Public Health Officials and also Canadian representatives. And just to reemphasize what I discussed before, there's a lot of eagerness to get access to the government's modeling result, so we understand what they are; talked about a variety of things with alarms going off at airports and mail being intercepted from Japan, so they are working together. They appreciate the guidance that they got from the NRC, and also from DOE.

DHS has spoken up and said that they are using the personal rad detection capability that they

have as the detectors at the airports to passively screen passengers as they return to the United States. They've no elevated readings so far that have caused any concern, but they will coordinate through the inter-agency to make sure that they're applying the appropriate guidelines.

They did have --

FEMALE PARTICIPANT: Mike, they asked what the level was for release of passengers so we do not issue a (inaudible). They don't have a protocol yet for that.

MIKE CASE: Right. Okay. Well, they didn't allude to that on the call.

FEMALE PARTICIPANT: I understand, but so you're aware of it.

MIKE CASE: Okay.

MALE PARTICIPANT: Who would have the lead for that, EPA?

FEMALE PARTICIPANT: EPA should, but we've got this issue going on (inaudible).

MIKE CASE: They did have 23 hits on cargo, so all those hits were at very low levels, five to forty micro R per hour. They had an air filter on a jet that landed in Dallas-Fort Worth that was at 267 micro R per hour, so that was the hottest thing they

found.

[redacted]

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MALE PARTICIPANT: You said the jet air filter was at 250 micro R?

MIKE CASE: 267 micro R per hour. It sounds like they just have a micro R meter --

MALE PARTICIPANT: Right.

(Background conversations.)

MALE PARTICIPANT: What are we talking normal background?

FEMALE PARTICIPANT: 250 to 350. At what height are they at, 40,000 feet?

MALE PARTICIPANT: Yes.

FEMALE PARTICIPANT: And they're going to get --

MALE PARTICIPANT: Contamination anyway.

FEMALE PARTICIPANT: From positive radiation.

MALE PARTICIPANT: Positive.

FEMALE PARTICIPANT: We'd have to see what

it is, and what they find.

MALE PARTICIPANT: Yes, that's not going to be particulate on the filter.

FEMALE PARTICIPANT: I didn't know the filter or the micro R.

MALE PARTICIPANT: It's micro R per hour, so it sounds like it's a meter reading of a filter. So, we don't have any pedigree on that measurement, so take it for what it's worth.

MALE PARTICIPANT: What we're seeing in the media, just so you think about this, is that you're seeing things being described in multiples of normal background.

MALE PARTICIPANT: Right.

FEMALE PARTICIPANT: Right.

MALE PARTICIPANT: So, Vinnie's point is --

MALE PARTICIPANT: We don't know.

MALE PARTICIPANT: -- if normal background for an air filter flying at 40,000 feet or 37,000 feet is going to be higher than it is here on the ground certainly. Right?

MALE PARTICIPANT: So, those readings may or may not have anything to do with the accident.

MIKE CASE: Exactly right. That's a good

way to clarify it. So, the action items, CDC is going to share the website information. [redacted]

[redacted]

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So, other than to clarify today, tomorrow that was our only action. And it sounds like the Chairman said just take care of that situation.

MALE PARTICIPANT: Okay. I had a couple of reactions --

MIKE CASE: Go ahead.

[redacted]

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MIKE CASE: Right.

MALE PARTICIPANT: [redacted] That's key for the team to have, especially if we get hit with another quick request to print out a press release.

MIKE CASE: The modeling that was discussed and, Jane, you can verify this, but it was all with respect to what do we expect to see here in the United States, including Hawaii, Alaska --

MALE PARTICIPANT: Well, that would not be us.

MIKE CASE: That would not be us. Okay.

MALE PARTICIPANT: That's right.

MIKE CASE: And that's consistent with calling off MAX extension.

MALE PARTICIPANT: We're aligned.

MIKE CASE: Yes. They're going to --

FEMALE PARTICIPANT: We've been sending Emile the research, though, because they had --

MIKE CASE: Okay. So, they may not have had the word coming out of the Ops Center. So, I'm presuming we still retain the obligation to insure that we have a sufficient basis for whatever protection action recommendations we make.

MALE PARTICIPANT: Okay.

MIKE CASE: And we need to update based on the emerging situation, and we need to update those runs. Now, it would make sense that we're sharing our source term information with the people on that long scale model. Right?

MALE PARTICIPANT: Yes.

MIKE CASE: Because if there's difference in there, that would create a potential conflict.

MALE PARTICIPANT: Are we (inaudible) to give recommendations to the Ambassador. Because we got into this at the beginning, like (inaudible) advising the Ambassador.

MIKE CASE: Yes.

MALE PARTICIPANT: So, (inaudible) only goes out to 50 miles.

FEMALE PARTICIPANT: But the request we had yesterday at 6:54 a.m., which we're still waiting on, has to go out past Tokyo, go out at least 150-200 miles.

MIKE CASE: Okay.

FEMALE PARTICIPANT: Well, we should be able to get that information --

MALE PARTICIPANT: At least the first estimate.

FEMALE PARTICIPANT: Yes.

MALE PARTICIPANT: But a 24-hour turnaround? You're really talking about changing conditions.

FEMALE PARTICIPANT: It's tough.

[redacted]

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[redacted]

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[redacted]

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MIKE CASE: I would think we would work back through DOE. We would reach alignment that we still have a need to do the near field modeling.

MALE PARTICIPANT: Okay.

MIKE CASE: Because people are relying on that for those protective action recommendations. And if the basis for that recommendation changes, we need to stay current.

MALE PARTICIPANT: You want me to contact (inaudible).

MIKE CASE: Yes, can you do that?

MALE PARTICIPANT: All right. I can do that.

MIKE CASE: That would be in then in parallel with what the Chairman is going with --

[redacted]

MIKE CASE: Okay.

FEMALE PARTICIPANT: She can provide that, too.

MIKE CASE: Well, let's work first with the DOE. If we can't resolve, which I would hope we can resolve it --

FEMALE PARTICIPANT: I go back to the Dansa response framework and it would not be a -- I think that's your -- you would not be on it.

MALE PARTICIPANT: For the U.S.

FEMALE PARTICIPANT: That's correct.

MALE PARTICIPANT: In case of people in Japan --

MIKE CASE: Right.

MALE PARTICIPANT: We're going to have to make sure the U.S. Government is aligned on who it is until they have the responsibility to do that. We don't think we do, and then somebody else is out there doing it, too --

MIKE CASE: Absolutely.

MALE PARTICIPANT: [redacted]

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MIKE CASE: Okay.

MALE PARTICIPANT: I had something else.

FEMALE PARTICIPANT: NEI call?

MALE PARTICIPANT: Marty asked me to call NEI. That's when I stepped out before.

MIKE CASE: Okay.

MALE PARTICIPANT: Angela talked to Marty. Ralph Anderson talked to us today. NEI took our press release, of course, like everybody else, and they're very interested. NEI wants to stay aligned with us. They don't want to be speaking and somehow

saying something different than we -- they want to stay aligned. In order to be able to do that, they want to be able to have communication with us so that we can talk with each other. And Eric went off, to leave to do that. I guess he talked to you?

MALE PARTICIPANT: Yes, he did.

MALE PARTICIPANT: Yes. Okay.

MALE PARTICIPANT: Start with you, Eric took it, and --

MALE PARTICIPANT: Yes.

MALE PARTICIPANT: Prepared to call NEI.

MALE PARTICIPANT: So, I will give you who Ralph gave me as a point of contact at NEI.

MALE PARTICIPANT: Chris (inaudible) is not who I want to talk to.

MALE PARTICIPANT: Yes.

MALE PARTICIPANT: Chris (inaudible) will be the person that our liaison team person talks to.

MALE PARTICIPANT: Yes.

MALE PARTICIPANT: And it's a two-way street. We're going to add one to the list of three that they gave us. They have a request, they want to understand the background, the ones on the rascal that supported the (inaudible).

MALE PARTICIPANT: And I explained to him

what --

MALE PARTICIPANT: Yes.

MALE PARTICIPANT: I hope that is waged --

MALE PARTICIPANT: There's a couple of other items that (inaudible) down from Eric said that they're specifically interested in.

MALE PARTICIPANT: Right.

MALE PARTICIPANT: But I think we need to be interested in the process for several days now. We need to be interested in any advice or communications, or systems that NEI is running (inaudible) in Japan so we have cognizance of what they're doing. They've been putting --

FEMALE PARTICIPANT: They've been pushing daily, several times a day to all the --

MALE PARTICIPANT: Yes, all the members.

FEMALE PARTICIPANT: Yes. Now, I understand, but I --

MALE PARTICIPANT: This is also the second--

FEMALE PARTICIPANT: I get all three.

MALE PARTICIPANT: You're getting called into an A&S, because I get that, too.

FEMALE PARTICIPANT: Yes.

MALE PARTICIPANT: But the NEI people, the

NEI members are getting Scott Peterson (inaudible) that I watched while I was in Peru (inaudible) what was going on, so it was pretty clear to me that we needed to confide in with NEI, not to coordinate, but be aware of what -- we don't want to have two different --

MALE PARTICIPANT: Exactly. They're interested --

MALE PARTICIPANT: -- pieces of advice going on --

MALE PARTICIPANT: They're interested in supporting --

MALE PARTICIPANT: The pieces we need from them is that they would agree to let us know what advice they are providing, or have they been requested -- that's not Earl. That's why I go back to --

MALE PARTICIPANT: Go back to Inner City --

MALE PARTICIPANT: Can you give me his phone -- do you have his phone number?

MALE PARTICIPANT: Yes, kind of ruffle through here.

MALE PARTICIPANT: It's better to -- is Ralph or --

FEMALE PARTICIPANT: NEI.

MALE PARTICIPANT: Yes, I know that.

MALE PARTICIPANT: I got --

FEMALE PARTICIPANT: If he x-rays -- no, Ralph Anderson at NEI. Okay. He's like the Director or --

(Background conversations.)

MALE PARTICIPANT: That's what I would do.

MALE PARTICIPANT: I've got Marvin's number.

MALE PARTICIPANT: Yes.

MALE PARTICIPANT: I'll call Marvin.

FEMALE PARTICIPANT: (Inaudible) between Marvin and Ralph.

MALE PARTICIPANT: Yes. But I've got Marvin's number. I tell Marvin here --

MALE PARTICIPANT: He'll look into it.

MALE PARTICIPANT: Yes. And here's the deal. So, are you all right with me taking care of this?

MALE PARTICIPANT: Yes.

MALE PARTICIPANT: Okay. A little uncomfortable about (inaudible). If something goes wrong, or somebody -- the only radiation (inaudible) injury that occurs in this entire event occurs by some (inaudible) applying one of our (inaudible). The

[redacted]

MALE PARTICIPANT: Is that on our list?

(Background conversations.)

MALE PARTICIPANT: It's your decision to make.

(Background conversations.)

MALE PARTICIPANT: Given the fact that we don't have -- we have very approximate --

MALE PARTICIPANT: Disabled --

MALE PARTICIPANT: And if you're worried about the, like Mike says, I'm not tweaking this thing (inaudible) long screwdriver. And that's exactly what we will be doing. Unless we just say here's how we would --

MALE PARTICIPANT: Right.

(Background conversations.)

MALE PARTICIPANT: They've got to give the best advice that they can.

MALE PARTICIPANT: Yes. It should be just -- (Background conversations.)

MALE PARTICIPANT: There to establish a relationship.

(Background conversations.)

MALE PARTICIPANT: PEPCO regulators. I think the President's call --

MALE PARTICIPANT: Yes, they didn't have the best position.

(Background conversations.)

FEMALE PARTICIPANT: The comment I made earlier today to the -- (inaudible) to justify the expansion to 50 miles yesterday morning at about 2:00 in the morning was different than the two that we had at the press release. However, the ones that we had at the press release are still the best information until we have (inaudible) go there. Because the previous one was at 5 rem at 40 miles, so it seems (inaudible). If it's at 5 rem for (inaudible) at 40 miles, and if ET felt it was getting worse, that's why the expansion to 50 was generated. So, then at 5:00 they could be -- I think we're still --

MALE PARTICIPANT: Okay.

(Background conversations.)

MALE PARTICIPANT: That would be helpful, because if NEI is looking for the background we're not going to find it in a press release.

MALE PARTICIPANT: Well, they have that.

MALE PARTICIPANT: Yes, but it's a summary of the --

MALE PARTICIPANT: They want to know what was behind --

(Background conversations.)

MALE PARTICIPANT: Are we protecting the --

MALE PARTICIPANT: Yes. NEI wants to know what's behind -- they want to know what's behind it, so that they can be --

MALE PARTICIPANT: Are we prepared to share the whole thing with them?

MALE PARTICIPANT: No.

FEMALE PARTICIPANT: If we share it with NEI, we need to share it with the world. Okay? They're a member of the public, as well, right?

MALE PARTICIPANT: Well, if they -- you know, there's a -- you have the discretion in the releases -- you are correct, that once you hand it to NEI, you have no basis to withhold it from anyone.

But you do have the discretion to decide who you initially give it to.

FEMALE PARTICIPANT: We can explain it on the phone easily enough to get them understanding. It's very big when you read the beginning of it.

MALE PARTICIPANT: Okay. Well, we'll just rack that away for a while.

MALE PARTICIPANT: But there's a difference here.

MALE PARTICIPANT: I don't mind --

FEMALE PARTICIPANT: I understand --

MALE PARTICIPANT: Handing them over the details and stuff --

MALE PARTICIPANT: We're getting there. That's where it started. Is there a problem with handing it? Yes, there is. Okay. Are we willing to take them through the entire explanation?

FEMALE PARTICIPANT: Sure.

MALE PARTICIPANT: And they can sit there scribbling on the other end and recreate the document that we would have handed them anyhow. But we never handed them a document.

FEMALE PARTICIPANT: The short answer --

MALE PARTICIPANT: Done that before.

FEMALE PARTICIPANT: But the short answer

to them is that the public doesn't know what percentage of core damage (inaudible). We did not on purpose put that in the press release, because it's a little alarming. I felt as the team director if we put in that it was hypothetical unit, you'll see it in the press. That's the best information.

MALE PARTICIPANT: Yes.

(Background conversations.)

MALE PARTICIPANT: Is that what TEPPCO is putting out now?

MALE PARTICIPANT: What somebody is putting out in the Japanese press.

MALE PARTICIPANT: But we don't know -- I guess we can go on the website. Right? NAPA.or.jap.

FEMALE PARTICIPANT: That's the English website. They've got some --

MALE PARTICIPANT: That's the network (inaudible) that we show.

MALE PARTICIPANT: Oh, it is.

MALE PARTICIPANT: Oh, that's just going to show --

FEMALE PARTICIPANT: Oh.

MALE PARTICIPANT: You know, we can get into it, the way the military sorts out this date and time confusion --

MALE PARTICIPANT: Okay.

MALE PARTICIPANT: -- and these multiple times (inaudible). That would -- if we elected to use it not as the main, but as a parenthetical in anything where we have time, when we write time, that'll force our staff who's doing this to ask whoever is giving them the information do you mean today or tomorrow? The date time group starts -- the syntax is the date, like 17 -- right now it would be 17:14:33 Zulu (inaudible) March 11th. We all know that. March.11. That'll always give you the day, that'll give you the Zulu time, even though you would say at 10:34, picture a log, at 10:34 (17:14:34Z). This is true. That solves part -- that's how the military --

(Background conversations.)

MALE PARTICIPANT: I went to Zulu time yesterday because it got too confusing. People were coming in, they give you Eastern Time, and then there'd be Zulu --

MALE PARTICIPANT: Yes.

MALE PARTICIPANT: -- and then there'd be Japan time. Oh, my God.

MALE PARTICIPANT: Right.

MALE PARTICIPANT: For a while we even had West Coast Time.

(Background conversations.)

MALE PARTICIPANT: So you have a chance of getting the transition from Eastern Standard, they were down to Daylight Savings Time also.

FEMALE PARTICIPANT: Okay. I'd say this on the power --

MALE PARTICIPANT: I've got to call --

(Background conversations.)

FEMALE PARTICIPANT: Is that the -- oh, I'm sorry. Are you open?

MALE PARTICIPANT: Yes, we're open, but go ahead. Phil is listening in, too.

FEMALE PARTICIPANT: They're having difficulty getting the trucks on site. They're working, it's just not going to happen today.

MALE PARTICIPANT: Okay. So, we want to reflect that in our next situation report. Whatever we're able to establish in terms of when they have, or if they have --

(Background conversations.)

FEMALE PARTICIPANT: All right. Because we also reiterated that, the nature of the --

(Background conversations.)

MALE PARTICIPANT: Is he a technical person? He's working with --

(Background conversations.)

MALE PARTICIPANT: Who's here from NRR, is it Robert?

(Background conversations.)

MALE PARTICIPANT: Yesterday, when I was on shift there was a question about how would you get a hole in the roof of Unit 2? Have we resolved that to your knowledge? Our team in Japan was asking for assistance and, obviously, the sensitivity is we've got a high rad environment, and (inaudible), so you'd have to do it in a non-explosive way. But to get water into the spent fuel pool in Unit 2, you'd have to have something shooting through. Right?

FEMALE PARTICIPANT: Saw that something --

MALE PARTICIPANT: So, we're still working on that, you think?

MALE PARTICIPANT: I was only --

MALE PARTICIPANT: I didn't get that in turnover that that was resolved. I think we need to change that around, because our team in Japan was asking. Now that their military is involved, that may have helped.

FEMALE PARTICIPANT: The other thing is just FYI (inaudible) water in the tank, and alignment of the priorities that we have.

MALE PARTICIPANT: Okay.

FEMALE PARTICIPANT: Make sure so that we can (inaudible) provide the best itemization --

MALE PARTICIPANT: That the sheet of scenarios or strategies that comes up from time to time, do we know the origin of that? I haven't been listening in. Is that how they --

FEMALE PARTICIPANT: I don't, but what I asked (inaudible) team to do, based on the status when it went through, and so (inaudible) we have in here, the data we do have, make sure that's still consistent with what we know.

MALE PARTICIPANT: Okay. Or are we deviating from that a lot. And you heard the Chairman's directions that he was comfortable providing our advice to --

FEMALE PARTICIPANT: No, I didn't hear that.

[redacted]

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[redacted]

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MALE PARTICIPANT: That's the other thing, you know, given countries you're setting --

MALE PARTICIPANT: Right.

MALE PARTICIPANT: Do we have any knowledge of anybody (inaudible) there?

[redacted]

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MALE PARTICIPANT: Is that Mike?

MALE PARTICIPANT: Yes, Mike.

MALE PARTICIPANT: Mike, just to let you know, (inaudible). I want to find a slot where we're not interfering with your normal briefings and that sort of thing. We're hopefully trying to do it before he meets with Bill, which I think is at 2:00. Is there somewhere at lunch hour time, 12:30? Does that work for you?

MALE PARTICIPANT: Yes, that's fine.

MALE PARTICIPANT: Why don't we try 1:00 then?

MALE PARTICIPANT: He's just looking for an update.

MALE PARTICIPANT: Yes, I mean he came over here a few days ago so, just to get a current status.

MALE PARTICIPANT: Okay.

MALE PARTICIPANT: If that changes, I'll

get back to you.

MALE PARTICIPANT: And, obviously, you understand that since we're in the middle of some --

MALE PARTICIPANT: That's quite all right. Yes, he knows that.

MALE PARTICIPANT: Okay. I'm sure he does. Okay.

MALE PARTICIPANT: All right.

MALE PARTICIPANT: Thanks.

MALE PARTICIPANT: Sure.

MALE PARTICIPANT: Are you waiting for their call?

MALE PARTICIPANT: They're going to get the call through -- I've got a call (inaudible).

MALE PARTICIPANT: Yes. Go ahead. Charlie is talking about the Steering Committee. Yes, we'll deal with that later.

MALE PARTICIPANT: All right.

MALE PARTICIPANT: Okay.

MALE PARTICIPANT: This is -- we're trying to warm up over there.

MALE PARTICIPANT: Going to get to 10 degrees C. That's what they have. You know, the northern part of the island is like minus 3.

MALE PARTICIPANT: Right.

MALE PARTICIPANT: People are living in shelters.

MALE PARTICIPANT: Yes, they (inaudible).

MALE PARTICIPANT: Not good.

MALE PARTICIPANT: I know.

MALE PARTICIPANT: I mean, that's --

MALE PARTICIPANT: Oh, yes. It would be hard enough if you just had to respond to the nuclear emergency.

MALE PARTICIPANT: Yes.

MALE PARTICIPANT: But your infrastructure is all devastated along the coastline.

MALE PARTICIPANT: Yes.

MALE PARTICIPANT: Are they still sheltering the --

MALE PARTICIPANT: Yes.

MALE PARTICIPANT: And then you get to the point where you run out of food, I believe.

MALE PARTICIPANT: Yes, food is not expected to be a problem.

MALE PARTICIPANT: Oh, is that right?

MALE PARTICIPANT: Yes.

MALE PARTICIPANT: The shelters --

MALE PARTICIPANT: Yes. At least that's my understanding.

MALE PARTICIPANT: Probably the bigger problem is -- I mean (inaudible). You know, one time they were saying this range.

MALE PARTICIPANT: Twenty to thirty kilometers.

MALE PARTICIPANT: But at some point that doesn't become practical because I'm hearing loss of power --

MALE PARTICIPANT: Right. Enter a day --

MALE PARTICIPANT: Get out there.

MALE PARTICIPANT: Yes. Plus those things are protected.

MALE PARTICIPANT: Yes.

MALE PARTICIPANT: Is anybody still on the line?

MALE PARTICIPANT: Yes, I think Bill is listening in.

MALE PARTICIPANT: Oh, okay.

MALE PARTICIPANT: Is there anything -- you were okay with my summary? I tried to give a high level --

MALE PARTICIPANT: Yes.

MALE PARTICIPANT: -- not be that specific.

MALE PARTICIPANT: Yes.

MALE PARTICIPANT: I should call Steve. Does this phone work?

MALE PARTICIPANT: Yes.

MALE PARTICIPANT: You got an update?

FEMALE PARTICIPANT: (Inaudible) update what they were doing yesterday, the (inaudible) are talking about the possibility of punching a hole in the Unit 2 reactor --

MALE PARTICIPANT: Did we get some ideas?

FEMALE PARTICIPANT: I think we did get some ideas, but I think at the end of the day that idea died in Japan in terms of they didn't want to go that route for the moment.

MALE PARTICIPANT: Because they don't have a problem right now with the Unit 2 spent fuel pool.

FEMALE PARTICIPANT: I guess.

MALE PARTICIPANT: Yes.

FEMALE PARTICIPANT: They do have a hole --

MALE PARTICIPANT: Not like 3 and 4.

FEMALE PARTICIPANT: They have a hole in the side of the corrugated, the top part for venting --

MALE PARTICIPANT: Yes, but it's not big enough.

FEMALE PARTICIPANT: -- but it's not (inaudible) for water.

MALE PARTICIPANT: Right.

FEMALE PARTICIPANT: So, at this point they're not punching a bigger hole. [redacted]

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(CONFERENCE CALL INITIATED)

MIKE CASE: Hi, Howie, this is Mike Rober calling. Can you patch me through to Steve Burns, please? Thank you.

MALE PARTICIPANT: He's trying to reach him?

MIKE CASE: Yes. Hi. Yes. Oh, no, it doesn't warrant that. Mark or Trip around? Thank you.

Charlie, now is not a good time to -- did you see [redacted] 5

CHARLIE: No, I need to see them, but I was just waiting for --

MIKE CASE: Waiting for the call.

CHARLIE: -- the break.

MIKE CASE: Hey, how are you? Good, thanks. Thanks for taking the call, Mark [redacted] 5

[redacted]

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[redacted]

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No, we're okay with our people. It's really more coordinating the federal government's view. Okay? Thank you. Bye-bye.

Hey, that one is done.

FEMALE PARTICIPANT: (Inaudible).

MALE PARTICIPANT: Really?

FEMALE PARTICIPANT: Yes.

MALE PARTICIPANT: Well, do we know what's going on?

FEMALE PARTICIPANT: No, it's sort of --

MALE PARTICIPANT: Okay. Thank you.

FEMALE PARTICIPANT: And maybe some kind of (inaudible).

MALE PARTICIPANT: I hope not. You're aware of the problems we have with the (inaudible).

MALE PARTICIPANT: He cleared it (inaudible) country.

FEMALE PARTICIPANT: That's why (inaudible).

MALE PARTICIPANT: Oh, really?

MALE PARTICIPANT: He's had information (inaudible).

MALE PARTICIPANT: Oh.

(Background conversations.)

MIKE CASE: Well, we'll read the press release.

MALE PARTICIPANT: Apparently, (inaudible) share it with (inaudible).

MIKE CASE: Have we seen it?

MALE PARTICIPANT: I haven't seen it. That wasn't --

MIKE CASE: I didn't get that internal.

MALE PARTICIPANT: Yes, I haven't.

MIKE CASE: Is she going to get that to you?

MALE PARTICIPANT: She got it in there, and she was going to use it to get (inaudible) country.

MIKE CASE: Yes, maybe we can get it.

MALE PARTICIPANT: Okay. Thanks. Ken said that Marty (inaudible) called last night (inaudible).

MIKE CASE: Maybe Sally, where's Sally?

So, today now looks like tomorrow.

MALE PARTICIPANT: For the restoration of power.

MALE PARTICIPANT: I will (inaudible).

MIKE CASE: About getting a line in.

MALE PARTICIPANT: Maybe getting an electrical line.

MIKE CASE: Right.

MALE PARTICIPANT: Getting it, and connecting it, and getting it to operate --

MIKE CASE: Is an entirely different thing. And the Chairman made that very plain in the call.

MALE PARTICIPANT: He wanted --

MIKE CASE: Yes, he was aware of that.

MALE PARTICIPANT: Talked to us about that. We've been trying to explain (inaudible) plugging it in.

MIKE CASE: Yes. Look how dark it is.

MALE PARTICIPANT: Midnight.

MIKE CASE: You'd never know, there's all the neons on.

MALE PARTICIPANT: Yes, they'll probably get (inaudible) power.

FEMALE PARTICIPANT: Blackout --

MALE PARTICIPANT: Yes, it's dark --

MIKE CASE: They requested people to back off on their use of power.

Do you have an update?

MALE PARTICIPANT: (Inaudible).

MIKE CASE: Okay.

MALE PARTICIPANT: Oh, that must be the [redacted]-

MIKE CASE: Yes, that's it.

MALE PARTICIPANT: It's gone.

FEMALE PARTICIPANT: (Inaudible) with me.

MALE PARTICIPANT: Plus be able to work (inaudible) hours outside --

FEMALE PARTICIPANT: Yes.

MALE PARTICIPANT: Marty said this last night.

FEMALE PARTICIPANT: Yes. And, obviously, I was tuning it up a bit because it's (inaudible) on it.

MIKE CASE: He's our expert? Oh, that's their request.

FEMALE PARTICIPANT: Basically, how did you get (inaudible).

MIKE CASE: Those projections have the assumptions included?

MALE PARTICIPANT: (Inaudible) up to 50 miles.

FEMALE PARTICIPANT: Okay.

MALE PARTICIPANT: One could think that at (inaudible) at any distance we can calculate to.

FEMALE PARTICIPANT: Yes. (Inaudible).

MIKE CASE: Should be technically proficient.

FEMALE PARTICIPANT: I don't think we --

MIKE CASE: Oh, well he ought to be able to get it from somebody who --

MALE PARTICIPANT: The question is (inaudible).

MIKE CASE: So, the (inaudible) right there.

MALE PARTICIPANT: (Inaudible).

MIKE CASE: We're going to find it? He had something you wanted to share with you.

MALE PARTICIPANT: A long time ago, or just when he was leaving --

MIKE CASE: When he was leaving for Florida.

MALE PARTICIPANT: He just wanted (inaudible) noon time as --

MIKE CASE: That's what he wanted.

FEMALE PARTICIPANT: Yes, because we don't have --

MIKE CASE: Same time group.

FEMALE PARTICIPANT: What he wanted, they have our press release, and they want to know why.

MIKE CASE: They know why.

FEMALE PARTICIPANT: How did he get there is what --

MIKE CASE: Trying to see what additional information we can get. And they (inaudible) clear indication (inaudible).

MALE PARTICIPANT: Our recommendation (inaudible).

MIKE CASE: Oh.

FEMALE PARTICIPANT: Right. Oh, no, no. They know that.

MIKE CASE: Right. Do we have an answer to that question?

MALE PARTICIPANT: We're still working it, but I didn't see anything (inaudible) better than what we've already --

MIKE CASE: I haven't seen the [redacted] Perhaps I should go back and look at that.

MALE PARTICIPANT: Talking about moving the stuff back because (inaudible) that we had it in one place.

MIKE CASE: Okay.

MALE PARTICIPANT: And then we go back,

take a look at it.

MIKE CASE: Okay.

MALE PARTICIPANT: He had worked out the number of people in here --

MIKE CASE: Yes. Try to stack their (inaudible).

MALE PARTICIPANT: Sure.

MIKE CASE: Okay. I'm surprised you haven't been able to get a hold of --

MALE PARTICIPANT: (Inaudible).

MIKE CASE: Oh, okay. He's meeting with the Secretary of Energy.

MALE PARTICIPANT: So, they got the message to have him call? And if you want to go look at the (inaudible).

MIKE CASE: Brian is verifying that they're there.

MALE PARTICIPANT: Okay. And then you can come get me if he calls.

MIKE CASE: Yes.

MALE PARTICIPANT: Okay.

FEMALE PARTICIPANT: Oh, yes, yes. (Inaudible) because I had nothing (inaudible). I have no (inaudible).

MIKE CASE: So, the best we can tell

there's been no adverse reaction to our --

FEMALE PARTICIPANT: (Inaudible).

MIKE CASE: There's been an adverse reaction from (inaudible).

FEMALE PARTICIPANT: Yes.

MIKE CASE: But not us.

FEMALE PARTICIPANT: Not only repeating (inaudible).

MIKE CASE: Really? And that's in the press releases?

FEMALE PARTICIPANT: It is, I believe (inaudible).

MIKE CASE: Really?

MALE PARTICIPANT: (Inaudible) and what the media hears.

FEMALE PARTICIPANT: I doubt it. It's a press release, and I imagine it was much more than picking up the (inaudible).

MIKE CASE: All right. Anything you'd care to say?

MALE PARTICIPANT: No, I got intermittent (inaudible).

FEMALE PARTICIPANT: He provided this late update on all the status of (inaudible) in Japan.

MIKE CASE: How are you?

MALE PARTICIPANT: Good, Mike.

MIKE CASE: Good. Thanks for your help.

MALE PARTICIPANT: (Inaudible).

MIKE CASE: Try and get me the Reg Guide.

MALE PARTICIPANT: Yes.

MIKE CASE: Brian should be going down to our meeting with Ryan at 1:00, so --

MALE PARTICIPANT: Brian?

MIKE CASE: Sherron. So, if --

MALE PARTICIPANT: On what topic?

MIKE CASE: He's going down because the Secretary called together a group of experts for the National Labs throughout DOE, and Ryan thought we should participate in that. And that's to do kind of brainstorming on what other things could be done to help --

MALE PARTICIPANT: (Inaudible) we need to participate in that.

FEMALE PARTICIPANT: Oh, yes.

MIKE CASE: They're reinventing the wheel.

MALE PARTICIPANT: Absolutely. Otherwise we would (inaudible).

MIKE CASE: Right. Quiet gentleman, very considerate.

FEMALE PARTICIPANT: It's technical, which

is great --

MIKE CASE: Yes.

FEMALE PARTICIPANT: -- because have to be (inaudible). I may not be (inaudible).

MIKE CASE: Right.

MALE PARTICIPANT: (Inaudible).

MIKE CASE: You want to go back and look at --

MALE PARTICIPANT: Yes, their -- we were looking at putting it up on the screen, but --

(Background conversations.)

MIKE CASE: We had that call with OGC.

FEMALE PARTICIPANT: Yes.

MIKE CASE: We had the verification of what today means in terms of restoration of AC power.

FEMALE PARTICIPANT: (Inaudible).

MIKE CASE: Yes, (inaudible) has that. They've already briefed back that today is tomorrow, they think, but it's now tomorrow. But they're going to update the situation reports to reflect the status.

FEMALE PARTICIPANT: Yes, I think what the status is, how (inaudible).

MIKE CASE: Okay.

FEMALE PARTICIPANT: But I think

(inaudible) was what day --

MIKE CASE: Right. Okay. So, where do I go? I go to the --

MALE PARTICIPANT: No, the (inaudible).

MIKE CASE: Oh, because on here it's Table --

MALE PARTICIPANT: If you want this table, I'll give it out. I have --

MIKE CASE: Yes, why don't we do that.

MALE PARTICIPANT: Okay.

(Background conversations.)

FEMALE PARTICIPANT: That was a long, hard night. A new sheet of paper. (Inaudible).

MALE PARTICIPANT: Thank you. (Inaudible).

FEMALE PARTICIPANT: Okay.

(Background conversations.)

FEMALE PARTICIPANT: By the gate.

MALE PARTICIPANT: I need (inaudible).

(Background conversations.)

MALE PARTICIPANT: (Inaudible). It could just be projection --

(Background conversations.)

MALE PARTICIPANT: Sure. I'm just trying to see if anything might have changed since I left at 11:30 last night.

MALE PARTICIPANT: Okay.

MALE PARTICIPANT: Are we still standing by (inaudible).

MALE PARTICIPANT: We have not changed anything at this time.

MALE PARTICIPANT: Okay. (Inaudible), apparently, the IR (inaudible).

MALE PARTICIPANT: Yes.

MALE PARTICIPANT: We had a press briefing and they say that (inaudible) helicopter dump borated water in the pool (inaudible).

MALE PARTICIPANT: Did you see this on TV? (Inaudible) going in the pool.

MALE PARTICIPANT: And that they confirmed that there's water in the pool, but I just want to make sure that we're still standing by, because I know that Chuck (inaudible).

MALE PARTICIPANT: Yes.

MALE PARTICIPANT: They say that they showed the film to Chuck, and that (inaudible).

MALE PARTICIPANT: I don't know that. I wasn't in on any of the conversations, and I'll have to (inaudible).

MIKE CASE: Charles, do you know?

MALE PARTICIPANT: He didn't know it.

MIKE CASE: Okay.

MALE PARTICIPANT: Can you listen to the bridge.

FEMALE PARTICIPANT: Just real quick, [redacted]

[redacted]

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MALE PARTICIPANT: So, we're getting (inaudible).

(Simultaneous speech.)

FEMALE PARTICIPANT: This is until 1:00.

MALE PARTICIPANT: They (inaudible), so we don't have the shape.

MALE PARTICIPANT: What you don't have is you don't have data on the direction of the plume.

MALE PARTICIPANT: Yes.

MALE PARTICIPANT: So, I want you to verify.

FEMALE PARTICIPANT: This is (inaudible). They have a whole bunch of sodium iodine inside the

helicopter. They need to fly at a fairly low level around the land and he keeps on (inaudible).

MALE PARTICIPANT: Right. (Inaudible) picture up a little bit closer to --

MALE PARTICIPANT: So, you'll be able to do some of it from that.

FEMALE PARTICIPANT: Yes.

MALE PARTICIPANT: Okay.

MALE PARTICIPANT: That's a bigger picture.

FEMALE PARTICIPANT: But it's basically (inaudible).

MIKE CASE: It's 1,000 feet above ground level.

FEMALE PARTICIPANT: Yes.

MALE PARTICIPANT: Yes.

MALE PARTICIPANT: Okay. It is 1,000, but it's not in the 10s or 100s of MR per hour at 1,000, which is good news. Right?

MIKE CASE: Yes.

FEMALE PARTICIPANT: Very good news.

MIKE CASE: How do you (inaudible) these are the readings at the detector. How do you translate that to what's on the ground?

FEMALE PARTICIPANT: We're going to take

this now, and then we're going to project a dose on the ground.

MIKE CASE: On the ground, okay.

FEMALE PARTICIPANT: Yes.

MALE PARTICIPANT: (Inaudible).

MIKE CASE: Yes, yes.

FEMALE PARTICIPANT: So, we'll show you the other picture, but it'll be up there.

MIKE CASE: Okay, great. Thank you.

(Background conversations.)

MALE PARTICIPANT: Mike?

MIKE CASE: Yes? Got a new day --

MALE PARTICIPANT: Oh, sorry. I just wanted to check, are the current releases about the Unit 4 pool, still think it's empty?

[redacted]

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[redacted]

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MIKE CASE: Yes, I wouldn't go there. Don't go beyond what the Chairman said in the hearing.

MALE PARTICIPANT: Right.

MIKE CASE: But you see -- oh, we don't have our status sheet up any more.

MALE PARTICIPANT: No.

MIKE CASE: Can we not have the chronology up there?

FEMALE PARTICIPANT: Yes, you can (inaudible).

MIKE CASE: So, can we put the plant status where the ET chronology is?

FEMALE PARTICIPANT: The green one?

FEMALE PARTICIPANT: 1B.

MIKE CASE: Yes.

FEMALE PARTICIPANT: Okay.

FEMALE PARTICIPANT: That's fine. I don't know how much code (inaudible).

MIKE CASE: Thank you. So, we're all set with the task tracker?

FEMALE PARTICIPANT: Yes (inaudible) to a solution and (inaudible).

MIKE CASE: Just assign both teams.

FEMALE PARTICIPANT: Yes. So, like (inaudible).

(Background conversations.)

MIKE CASE: Yes, liaison team is fine. David can tell me (inaudible).

MALE PARTICIPANT: Chairman Jaczko is coming on the Daiichi conference.

MIKE CASE: Okay.

(CONFERENCE CALL INITIATED)

CHAIRMAN JACZKO: Hey, Mike.

MIKE CASE: Hi, Chairman.

CHAIRMAN JACZKO: How are you?

MIKE CASE: Okay. How are you doing?

CHAIRMAN JACZKO: Good. How are we doing with ideas for mitigating strategies?

MIKE CASE: We have four different lists of mitigating strategies --

CHAIRMAN JACZKO: Good.

MIKE CASE: -- that our team is working here.

CHAIRMAN JACZKO: Okay. Are we pulling from the B5B stuff?

MIKE CASE: Yes.

CHAIRMAN JACZKO: Yes, okay. Good.

MIKE CASE: We have already had discussions about that with our team in Japan, but we're --

CHAIRMAN JACZKO: Okay.

MIKE CASE: -- continuing to refine those in terms of what equipment needs there would be to support those.

CHAIRMAN JACZKO: Okay, good. So, that's well in progress?

MIKE CASE: Yes.

CHAIRMAN JACZKO: Have we transmitted that to Chuck already, or is that ready to get transmitted?

MIKE CASE: I think we've transmitted early information, and we're continuing to work it, so we're refining the information --

CHAIRMAN JACZKO: Okay. Good.

MIKE CASE: -- we're sharing. We did --

CHAIRMAN JACZKO: Are we --

MIKE CASE: Go ahead.

CHAIRMAN JACZKO: Are we talking to GE or industry folks for ideas, as well?

MIKE CASE: Yes.

CHAIRMAN JACZKO: Yes. Okay. Good. Go ahead, keep up the good work. In every meeting I've been in, I just want to reiterate to all of you the accolades for the NRC have been consistent and --

MIKE CASE: Oh, great.

CHAIRMAN JACZKO: Keep up the good work, and let's keep doing what we're doing, which is good timely decision making with good information. And I think as Bill mentioned yesterday, our focus probably now more than anything is on our -- focusing on how we can do mitigation. To some extent, the monitoring is not -- of the situation is not as important any more.

I think it's the mitigation strategies. And Chuck seems like he's had a breakthrough, so we want to take advantage of that and get them good, accurate, reliable information as soon as we can.

MIKE CASE: Absolutely.

CHAIRMAN JACZKO: Okay, good. Well, thanks. I'm heading over to the White House. I'm going to do a -- I'll likely do the White House press briefing, so maybe I'll call you back in 15 minutes if we can do -- if you can just do a run through for me of updated information and anything you think I need to know before that briefing.

MIKE CASE: Okay, will do.

CHAIRMAN JACZKO: Okay. Thanks, everybody.

MIKE CASE: Thank you.

MALE PARTICIPANT: Do we have the (inaudible) to confirm that we've -- or what our next time is that we're going to be sharing the mitigating strategies (inaudible) Japan?

MIKE CASE: I know it's midnight over there now.

MALE PARTICIPANT: I think we've been sharing all along, but (inaudible).

MALE PARTICIPANT: And it's all (inaudible) nitrogen.

(Background conversations.)

MIKE CASE: But that would cause other problems.

MALE PARTICIPANT: Yes, yes.

MIKE CASE: Bill and I, and the science guy talked about that the other night, about well, you can't just inject liquid nitrogen.

MALE PARTICIPANT: Yes.

MIKE CASE: So, maybe that's where this guy got the idea.

MALE PARTICIPANT: Yes.

FEMALE PARTICIPANT: (Inaudible) for 15, 20 minutes --

MIKE CASE: Okay.

FEMALE PARTICIPANT: She'll come in and brief you on where they --

MIKE CASE: Okay. Great. Fifteen minutes. Well, do you have an update in like 10 minutes?

MALE PARTICIPANT: To give to the Chairman?

MIKE CASE: Yes. Thanks. Cindy was saying that these are altitude measurements.

FEMALE PARTICIPANT: (Inaudible).

MIKE CASE: Okay.

MALE PARTICIPANT: Yes, that's my understanding.

(Background conversations.)

MIKE CASE: At 1,000 feet.

FEMALE PARTICIPANT: At 1,000 feet. I mean, we're not looking at hundreds of --

MIKE CASE: Yes.

FEMALE PARTICIPANT: (Inaudible) per hour. We're going to see, once we estimate what it is on the ground, if it matches (inaudible).

MIKE CASE: Right, right.

FEMALE PARTICIPANT: And we (inaudible).

MIKE CASE: Yes, so you're at like four miles and you're still way above that. Have they separated out what's in the air versus what's on the ground here, aggregate?

FEMALE PARTICIPANT: It's just aggregate. Just what they're detecting (inaudible).

MIKE CASE: Okay. So, there could be releases from the stack that they're seeing.

FEMALE PARTICIPANT: Could be, yes.

MIKE CASE: So, that may not be on the ground. That may --

FEMALE PARTICIPANT: Exactly. What's blowing (inaudible) right now.

MIKE CASE: 800 feet out --

FEMALE PARTICIPANT: Well, we don't have the data yet. I remember over the weekend (inaudible). So, even though it's floating this way now, but that was (inaudible).

MIKE CASE: Yes.

FEMALE PARTICIPANT: So, that's something (inaudible).

MIKE CASE: Great. And these little upside down triangles, are these their monitoring points away from the plant? Do we know? Or are these just --

FEMALE PARTICIPANT: I don't know.

MIKE CASE: Can you fix it? Maybe the challenge is --

FEMALE PARTICIPANT: Yes.

MIKE CASE: Thank you.

(Background conversations.)

MIKE CASE: They're models, they're not accurate.

FEMALE PARTICIPANT: Oh.

[redacted]

Charlie, this is a blow up of the data so you can better see the elevated areas.

CHARLIE: It's the serpentine pattern.

MIKE CASE: Right. So, these (inaudible) at 1,000 feet, so you have to calculate well, what would it be at ground level? And then they're compare this with the data they have (inaudible). Some of these elevated levels may be the release is ongoing (inaudible).

MALE PARTICIPANT: True. But you're getting 20 to 30 --

MIKE CASE: Milli-R.

MALE PARTICIPANT: -- milli-R. It's real data.

MIKE CASE: Right. At 1,000 feet, that's 1,000 feet. But that could be a plume at 800 feet that you're seeing.

MALE PARTICIPANT: Yes.

MIKE CASE: The detectors are seeing whatever is below it.

MALE PARTICIPANT: It could be the shine from the plume.

MIKE CASE: Could be the shine from the plume.

MALE PARTICIPANT: True.

MIKE CASE: Yes, so I don't know how they're going to work that out.

MALE PARTICIPANT: With the helicopter, so

(inaudible). They could put the helicopter maybe in a (inaudible).

MIKE CASE: I think they attached the pods to helos, but then (inaudible) they had in --

MALE PARTICIPANT: I don't know.

MALE PARTICIPANT: See, that's what I was trying to determine (inaudible).

MIKE CASE: If they didn't fly --

MALE PARTICIPANT: I know they've got a pod they could put on.

MIKE CASE: Yes.

[redacted]

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MIKE CASE: The Chairman is calling back at 11:30. He's going to be in the White House press conference, so he wants the latest and greatest.

FEMALE PARTICIPANT: All right. This is -- here's -- shall I run through this with you?

MIKE CASE: At a high level.

FEMALE PARTICIPANT: Okay.

MIKE CASE: We've shared this with our team and Japan. Not yet?

FEMALE PARTICIPANT: I want -- we have a logistics guy going through. Before we send it to Japan, I want to (inaudible) get feedback from the (inaudible). There are four plans under development, A, B, C, and D.

MIKE CASE: Do you have an extra set of that?

FEMALE PARTICIPANT: Plan A, which has sort of been --

MIKE CASE: So, A is what came in yesterday that our folks have scoped out.

FEMALE PARTICIPANT: Yes.

MIKE CASE: And we drew the pretty picture.

FEMALE PARTICIPANT: Yes.

MIKE CASE: Right. Okay.

FEMALE PARTICIPANT: That's Plan A.

MIKE CASE: Okay.

FEMALE PARTICIPANT: Okay. We're scoping that out for the equipment associated with that (inaudible) supply us. And this is the logistics of executing Plan A at high level. I mean (inaudible) to

it, but --

MIKE CASE: So, we're assuming this equipment is not available in Japan.

FEMALE PARTICIPANT: It may be available in Japan, but we wanted to (inaudible).

MIKE CASE: Yes.

FEMALE PARTICIPANT: This is all available in (inaudible) right now.

MIKE CASE: It is?

FEMALE PARTICIPANT: All available. They're putting it together and getting it ready.

MIKE CASE: Okay.

FEMALE PARTICIPANT: So, if you go down to the next step, until we've had our contact with our team in Japan and we have the individual who would be the one who coordinates if we -- three modes of transport that's (inaudible), the airlift at Becco (inaudible) by U.S. military, or we can work with the Australian military. They can airlift it, and (inaudible).

At that point, we want to use our MP contact to coordinate the receipt of that, and then we can move it to a staging area that actually (inaudible) for which we can provide training and assembly, because this really will need to be a kit

(inaudible). And then they can also at that point train the Japanese personnel on how to put them together.

On the top here, we're aligning it with the priorities that we have here in terms of this is for (inaudible). This is aligned for the new priorities 1, 2, 3, and 4.

MIKE CASE: Okay.

FEMALE PARTICIPANT: That brings you down to training Japanese personnel over the timing (inaudible) put it together, and execute so they can have a good idea of how many kits they would need (inaudible).

Also, possible fielding and vehicles that would be needed to bring the equipment in, and how to provide (inaudible).

There was question, MIKE CASE, (inaudible)and send robotic equipment if you had to operate that. I'm not sure that --

MIKE CASE: We need their manual.

FEMALE PARTICIPANT: Right. So, that's why we're going to send the details out to INPO, GE, Bechtel (inaudible).

MIKE CASE: Okay.

FEMALE PARTICIPANT: Okay?

MIKE CASE: Thanks. Any other strategies, B, C, and D?

FEMALE PARTICIPANT: Well, this is -- again, we heard yesterday that there are three fire boats that would be available. And this is (inaudible) pumps.

MIKE CASE: Yes.

FEMALE PARTICIPANT: So, you're actually just using a fire pump (inaudible), and then you hook that up and you follow the same system. But there's -- we have those.

Do you want ideas that came out of our discussion with industry? The other one was they have the high-rise concrete booms.

MIKE CASE: Booms, yes. Can you pump water with those kind of --

FEMALE PARTICIPANT: They seem to say yes, you would use water as opposed to concrete. They need to flesh that one out. And then there's a (inaudible) pumper that up in Oconee. I'm having communications either yesterday's day shift or last night Oconee using the B5B spray pumpers, they packed them up on (inaudible). They're like well, what do we do with them?

We're starting to back off on that because

we have pumps on the site right now they're not using.

MIKE CASE: Yes. Getting a lot of pump systems.

FEMALE PARTICIPANT: I'm hesitant just how everybody --

MIKE CASE: You don't want to degrade the plant's capability either.

MALE PARTICIPANT: Right.

FEMALE PARTICIPANT: Right. Well, but they have --

MIKE CASE: They have extra pumps?

FEMALE PARTICIPANT: Because this particular action I think is consistent across the U.S. industry, so --

MIKE CASE: Right.

FEMALE PARTICIPANT: -- their system (inaudible).

MIKE CASE: Okay. So, if they needed them, they'd get them --

FEMALE PARTICIPANT: Their time. And I think they standardize (inaudible).

MIKE CASE: Okay.

FEMALE PARTICIPANT: Okay. I'm hesitant, almost like yes, I don't want to take it off, but we need, and I think as the Chairman talked about this

morning, we're trying to do a better job of having one call with the industry people, and packing up and sending things out. (Inaudible) U.S. --

MIKE CASE: Okay.

FEMALE PARTICIPANT: -- through Vandenberg right now.

MIKE CASE: Leaving in two hours. That was one of the things that I (inaudible), the 20,000 pounds (inaudible).

FEMALE PARTICIPANT: At Diablo?

MIKE CASE: Diablo.

FEMALE PARTICIPANT: Yes. We just got a (inaudible) Vandenberg (inaudible).

MIKE CASE: Leaving from McCoy Air Force Base at 1600 Zulu, so in 30 minutes. That's heading to Washington.

FEMALE PARTICIPANT: (Inaudible).

MIKE CASE: It should arrive at 3:19 at 900 -- I'm sure. (Inaudible) their response. You probably want to stay here so when the Chairman calls back (inaudible) questions. He was asking are we (inaudible).

FEMALE PARTICIPANT: And we have another call with -- I mean, we needed the folks to put pen to paper.

MIKE CASE: Yes.

FEMALE PARTICIPANT: So, we have another call, we have INPO, GE (inaudible) naval reactors (inaudible). And they will all have seen this (inaudible) and gotten back to us on open items.

For example, one of the things that we needed to add to this cost proposal, Unit A (inaudible). That's an action (inaudible).

MIKE CASE: So, the expectation for Bechtel is that AID would pay.

FEMALE PARTICIPANT: Yes, I mean, they're (inaudible). And, of course USAID (inaudible) you can't do anything until (inaudible).

MIKE CASE: So, they'd be using high pressure fire hoses.

FEMALE PARTICIPANT: Yes.

MIKE CASE: Those are the non-collapsible hoses. And there's enough length there.

FEMALE PARTICIPANT: (Inaudible).

MIKE CASE: Okay.

FEMALE PARTICIPANT: And the key with this activity is making sure we get -- we have two requests out there, one with INPO, and one with for Bechtel. We're going to train and provide (inaudible) instructions.

MIKE CASE: Operate. You've got to train the operators to operate.

FEMALE PARTICIPANT: Right.

MIKE CASE: These are not their (inaudible).

FEMALE PARTICIPANT: That stuff is going to be -- I think if we decide to go (inaudible).

MIKE CASE: Would this be simplified if they do not need the diesel, they have -- they do restore AC power to the site?

MALE PARTICIPANT: (Inaudible).

(Simultaneous speech.)

MIKE CASE: We're not looking at that yet. We're not counting on that AC power.

FEMALE PARTICIPANT: You know, well (inaudible) --

MIKE CASE: Coming in at -- I hope that it --

MALE PARTICIPANT: (Inaudible).

FEMALE PARTICIPANT: I think the idea behind this, all the independent (inaudible) water in the pool. They come (inaudible) train them.

MIKE CASE: I understand the concept.

(Simultaneous speech.)

MIKE CASE: We don't even know that they

want this.

FEMALE PARTICIPANT: This is going to be available. We're going to try and, obviously, collect it out, but get it out to them. The target is communicating with (inaudible).

MIKE CASE: Do you know what time they're meeting?

FEMALE PARTICIPANT: At 9:00 a.m. their time, so that's what, 8:00 p.m. our time?

MIKE CASE: Yes.

FEMALE PARTICIPANT: Yes, so that's our --

MIKE CASE: So, that's in eight and a half hours.

FEMALE PARTICIPANT: Yes.

MIKE CASE: Okay.

FEMALE PARTICIPANT: At 1:00 we'll have this fleshed out as well as we can, and linking the recommendation (inaudible).

MALE PARTICIPANT: I mean, we can use the safeguards (inaudible).

MIKE CASE: You know if DOE is having a meeting this afternoon downtown to do some out-of-the-box thinking on what could be done? So, Brian Sherron is going to go down to that.

FEMALE PARTICIPANT: Okay.

MIKE CASE: So, my guess is when that's over he may have ideas that he'll want to come back and convey to the group (inaudible) back and just see. I think it's the intelligent (inaudible) having this meeting. Yes, they may come up with something. We applaud them. So, he'll go forward, give them what we've got and if something comes to fruition through that channel, that will be another (inaudible) that we --

FEMALE PARTICIPANT: I'm really excited (inaudible) concrete boom.

MIKE CASE: Yes.

FEMALE PARTICIPANT: It just seems like (inaudible).

MALE PARTICIPANT: That company would install (inaudible).

FEMALE PARTICIPANT: I've never seen one before.

MIKE CASE: I have. I don't think it has the extent of the arm that you may need.

MALE PARTICIPANT: No, but (inaudible).

MIKE CASE: Right.

MALE PARTICIPANT: It has to go up (inaudible) and pour down.

MIKE CASE: Go to about 18 stories, I

think. Because above that, like you see a building, our building next door (inaudible).

MALE PARTICIPANT: Eighteen stories is plenty of height.

MIKE CASE: Yes.

FEMALE PARTICIPANT: Yes.

MALE PARTICIPANT: But (inaudible) this would be --

MIKE CASE: Yes. And then as the pumping mechanism (inaudible) how you pump concrete different than how you pump water.

FEMALE PARTICIPANT: Yes.

MALE PARTICIPANT: That's what I was going to say. If you look at the RAD waste (inaudible) to the plant, all these (inaudible) from the stuff.

MIKE CASE: Yes.

MALE PARTICIPANT: An auger isn't going to move water very well.

MIKE CASE: Right. Well, the Egyptians got (inaudible).

FEMALE PARTICIPANT: That was this morning's brainstorm from Bechtel.

MIKE CASE: And we ought not turn off (inaudible). We don't know (inaudible). I think we will need to be sensitive to, as we provide this

information, our people in Tokyo must be sensitive. You know, an overload (inaudible). If we give them 27 options, every one of them have their own logistical challenge.

MALE PARTICIPANT: Did we come to a conclusion about do we provide recommendations (inaudible)?

MIKE CASE: We will provide recommendations.

MALE PARTICIPANT: So, that is --

MIKE CASE: It's up to them to decide what they're going to do with it.

MALE PARTICIPANT: Right.

MIKE CASE: The Chairman is very supportive of providing those. I understand the possible downside. I also understand the dire nature of the situation.

MALE PARTICIPANT: Yes.

MIKE CASE: So, the Chairman is going to the White House for the press conference.

MALE PARTICIPANT: Do we need to provide him the (inaudible).

MIKE CASE: As well as an update, so he's going to call back in.

MALE PARTICIPANT: Are we going to use

(inaudible).

MIKE CASE: I don't think we changed. Right?

MALE PARTICIPANT: I don't know if we had the (inaudible).

MIKE CASE: Well, that's what we briefed him on this morning.

MALE PARTICIPANT: Okay.

MIKE CASE: Right, nothing changed with respect to my status?

FEMALE PARTICIPANT: Not that I know of, no. And we tried to -- when we did our staff call earlier, we just wanted to make sure that (inaudible).

MALE PARTICIPANT: I like it because you've got where you got the information from on there.

MIKE CASE: Right.

MALE PARTICIPANT: And I think that's useful even to be at that table.

MIKE CASE: What he said in our previous call was that, you know, consider this our priority, working with our Japanese counterparts, equip them with ideas that they can implement (inaudible) action to accomplish the cooling of the pool. He said the reactors are doing okay, you know. They're getting by

with the seawater injection through the core spreader, the core spray header.

MALE PARTICIPANT: Basically depressurize (inaudible) cool it.

MIKE CASE: Pump the water and cool. Since we haven't had any indication of clogging --

MALE PARTICIPANT: I think that was what was giving them problems earlier on, but we haven't heard that (inaudible).

MIKE CASE: Really? Maybe they backed off on (inaudible).

(Background conversations.)

MIKE CASE: Do you have --

FEMALE PARTICIPANT: I (inaudible) with the DMRV.

MALE PARTICIPANT: Yes, Rich will be calling.

MIKE CASE: Yes? So, they're planning for the call, and full model (inaudible) alignment there.

MALE PARTICIPANT: Oh, good.

MIKE CASE: At Unit 1 (inaudible). They are asking the decision makers (inaudible).

MALE PARTICIPANT: When is that call?

MIKE CASE: We don't know yet.

MALE PARTICIPANT: Okay. Do we know on

the (inaudible).

MALE PARTICIPANT: Probably (inaudible) 5:00.

MIKE CASE: Well, that will affect where we're going from.

MALE PARTICIPANT: Yes. But, I mean, the guys (inaudible).

MIKE CASE: Yes.

(Background conversations.)

MALE PARTICIPANT: The wind wrapped around the other day, but (inaudible) to look like there's a plume --

MALE PARTICIPANT: Yes.

MIKE CASE: You know, what you have along the coast is you have coastal sea breezes that spread, so while the prevailing winds may be out to sea, you're still going to have some fluctuation along the coast. And that's what you're going to be seeing there. That could be a (inaudible). They said the strong winds this morning have died down, which is when they flew the --

MALE PARTICIPANT: (Inaudible).

MIKE CASE: Okay.

MALE PARTICIPANT: They were asking if we got results from the aerial monitoring.

MIKE CASE: DOE (inaudible). Keep people in their lane.

MALE PARTICIPANT: Yes, totally.

MIKE CASE: The Chairman is going to be at the press briefing in the White House. I think that goes on at noon.

MALE PARTICIPANT: (Inaudible).

MIKE CASE: In the hearing, in this meeting? That was (inaudible).

FEMALE PARTICIPANT: But it was (inaudible).

MALE PARTICIPANT: But I had Mike call --

MIKE CASE: See if everything --

MALE PARTICIPANT: Well, no. I mean, he's going to (inaudible) try to strongly encourage him to keep us more timely.

MIKE CASE: Okay.

[redacted]

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MIKE CASE: Jane said that they're arranging the [redacted] call, coordinating the modeling results and sharing that information.

MALE PARTICIPANT: Yes, that's important.

MIKE CASE: I would expect you to do that call.

MALE PARTICIPANT: Okay.

MIKE CASE: So, whenever that call happens. We're trying to figure out is it on a mobile line, is it on a --

MALE PARTICIPANT: I mean, if we get it off (inaudible) then I can get it in there.

MIKE CASE: Yes.

MALE PARTICIPANT: But I may want to bring Cindy with me so she can hear the (inaudible). Because the details, the devil is in the details, and it's getting the communication.

MIKE CASE: You're going to have to --

MALE PARTICIPANT: Yes, maybe I should just get on it myself.

MIKE CASE: That might be a good idea.

MALE PARTICIPANT: Okay.

FEMALE PARTICIPANT: If anything happens (inaudible) EPA colleagues, if you talk to them (inaudible) with them. It's not public, but it's able

to be shared through our bilateral arrangement with the (inaudible) experts money (inaudible). She said she thought it was fine, and it was consistent with the direction she and Marty thought things were moving (inaudible) before we move. But we're going to (inaudible).

MIKE CASE: Okay.

MALE PARTICIPANT: Which data are we talking about?

MIKE CASE: The source term data.

MALE PARTICIPANT: So, which --

MIKE CASE: 33 percent (inaudible).

FEMALE PARTICIPANT: Yes, and they're basing their's on (inaudible). And the Prime Minister's office is trying to figure out (inaudible) are they seeing the same thing or different things (inaudible).

MALE PARTICIPANT: Sir, Chuck Casto is coming up on the ET conference.

MIKE CASE: Okay.

MALE PARTICIPANT: It's clear that these are our assumptions, and we don't have a lot of detailed information (inaudible) 33 percent is the right number, or 40 percent is the right number.

FEMALE PARTICIPANT: And they know that,

but they're seeing numbers based on something different so they're getting confused.

MALE PARTICIPANT: Okay.

(CONFERENCE CALL INITIATED)

MIKE CASE: Chuck, are you there?

MR. CASTO: Yes, I am. I'd like to give you an update if you're -- if I can interrupt, or wait until you're ready.

MIKE CASE: No, we're ready. Just be aware the Chairman is going to be calling in briefly. He's going to be doing the noon White House press conference today.

MR. CASTO: Okay. I've got a little something to share with him anyhow, so --

MIKE CASE: Okay. So, that will be the priority when he comes on.

MR. CASTO: I understand. I understand that.

MIKE CASE: It's quarter to one, your time. Right?

MR. CASTO: Yes.

MIKE CASE: So, what are you doing up?

MR. CASTO: I'm okay. I'm getting like a two-hour nap every once in a while. But the trouble is, if you wake up, you're awake. You're going to come back in. You can't like go back over and go to sleep.

MIKE CASE: Yes.

MR. CASTO: Your mind darts, you know,

going a thousand miles an hour so you can't get any rest.

MIKE CASE: You need to take care of yourself, too.

MR. CASTO: Anyhow -- thank you. Anyhow, we had a good -- several, three probably good meetings with MOD today, the last few hours, the Ministry of Defense.

[redacted]

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MIKE CASE: Oh.

MR. CASTO: [redacted]

[redacted]

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[redacted] So, that's a challenge that we're working on with MOD and others. Not an urgent problem right now, but will be somewhere down the road.

MALE PARTICIPANT: Chuck, are they showing, or experiencing, or expecting problems with cooling of spent fuel pool number 1?

MR. CASTO: Yes, I think that's right.

MALE PARTICIPANT: So, even though we may not see (inaudible) imagery that doesn't mean that it's in okay shape.

MR. CASTO: Right. There's no power, there's no spent fuel pool cooling, so there's problems there. We just don't exactly know what it is. Whatever it is, it's contained because it's cask, you know, giant cask I guess. So, we really don't know the condition, but it's -- we don't know what contribution to the dose rates that that's providing. We really don't know what's going on underneath that concrete cap on Unit 1 spent fuel pool.

MALE PARTICIPANT: Are they doing anything now to add water?

[redacted]

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TEPPCO, and I don't want to get distracted here. I'll get to you on TEPPCO, but that's their game plan.

MALE PARTICIPANT: Okay.

MR. CASTO: Open up the demin water line.

Unit 4 spent fuel structurally looks like it's sound, or it's at least there on structure, but we can't -- I think they finally have concluded that there's probably no water in it. There's no steam, and they understand the physics of that, no steam, no water. So, I think we're -- hopefully, we've over that issue, but it still looms out there somewhere. But, honestly, I'm moving beyond -- I'm moving past that issue.

The helicopter operations just did not work, we know that. [redacted] 5

[redacted] Nor did the riot gun they picked up -- I think they did it twice. They got 10R or something like that total dose for a couple, like two minutes, so that --

MALE PARTICIPANT: Oh, the riot guns, yes. Okay.

MR. CASTO: The riot cannon.

MALE PARTICIPANT: Right.

[redacted] 5

[redacted]

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So, we're still moving forward with the cooling water systems. That's going to take some time. All the equipment is in Australia. The logistics people have it. They can move it to the site, and we're telling them to move it.

(Simultaneous speech.)

MR. CASTO: What's that?

MIKE CASE: Ed Lyons has briefed me on what we're planning on that. So, it sounds like you've got a plan, if they want to use that.

MR. CASTO: Who briefed you on that, Mike?

MIKE CASE: Far F.

LAURA: Hi, Chuck. This is Laura Dews. Yes, I talked to Tim Cole before he went home and we also know, I guess (inaudible) counterpart, so we're developing a more detailed logistical plan on that. We're going to pass --

MR. CASTO: Yes, Rick is here with me now. Basically, the real rub is, first we had a burden to getting over -- I'm going to give you the background. You guys got time for this?

MIKE CASE: Yes, we're fine.

[redacted]

I think yesterday we were able to break

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that down, or today I guess it was. Whatever, whatever day this is. [redacted] And they immediately called us back to get a working group together. And we've had people embedded there all day, and getting a working group between DART, US Forces Japan, and MOD. And that is -- we're very much working out.

They were very appreciative, [redacted] It taught them a lot. Our suggestions and recommendations, they've been very enthusiastic about those. So, I think we've got a very good relationship with MOD.

And it's, ultimately, going to come down to -- and this is -- I'm just going to be frank here. It's ultimately going to come down to an issue with

TEPPCO accepting the cooling water systems. [redacted] So, TEPPCO wants the fire truck strategy, but as they found out with the riot gun, that's just not going to work. You've got to use industrial equipment, like Nora, and Rick, and Tim are working on.

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[redacted]

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[redacted]

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[redacted]

But, anyhow, the things I think that we -- a couple of things that we have need for, and it's in the research area.

There was some work -- I don't know -- I thought I heard Brian in there earlier, I don't know if he's there, or Cathy, or somebody.

MIKE CASE: Yes.

BRIAN: I'm here.

MR. CASTO: Okay.

BRIAN: Sorry, wrong Brian.

MR. CASTO: They had done some research on B5B on air oxidation in a BWR.

MIKE CASE: Yes.

MR. CASTO: You know, we might -- I don't know if we're looking at that, or break that out and see if we can get anything out of that research on B5B air oxidation.

MIKE CASE: I think --

MR. CASTO: See if there's any insights in there.

MIKE CASE: They also briefed the reactor safety team on that research.

MALE PARTICIPANT: Okay.

MIKE CASE: Is that what you're referring to, the work that (inaudible) was involved in?

MALE PARTICIPANT: That's right.

MR. CASTO: Yes, I don't know who did it, but we just know that that's out there, and don't know if it shows us any -- illuminates anything for us.

MIKE CASE: Okay. Well, we'll reach back and get that.

MR. CASTO: Okay. Then, the other thing we need from Cathy and them is Zirc fires. You know, putting water on a Zirc fire, what would that look like? We need to know what would [redacted] be looking for to tell whether there's a Zirc fire? I mean, that's basically -- let me just get down to the bottom line.

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MIKE CASE: Okay.

MR. CASTO: [redacted] in the morning, if they can get water up there somehow, what would we be looking at to tell the difference between steam when

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the water gets on there, and Zirc fire?

Now, we probably could have dose consequences of the Zirc fire and not of the steam. I don't know. I'm not sophisticated enough to know that.

MIKE CASE: Okay.

MR. CASTO: But what we need to know is when we eventually put water on the spent fuel pools, are we making matters worse with Zirc fires, or what do we need to look for?

And, perhaps -- I know dolomite and dry chemical on extinguishing Zirc fires, but I'm not sure whether that's right. I think my understanding is you could put a Zirc fire out with dolomite or dry chemicals.

[redacted]

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[redacted]

MIKE CASE: Right.

MR. CASTO: On Unit 4, I forgot one item. On Unit 4 spent fuel pool, [redacted], and you guys have probably seen it, but I think we may have some other [redacted], but either the refueling floor crane is over top of the pool, and it's obstructing some of the [redacted], or there's debris on top of that pool. We're not sure, but that will cause some problems, eventually, if we try to spray water in there. That's going to probably cause some problems, too. There's some obstruction on that pool.

So, I've talked a lot. Let me see, I think that's everything -- that's about whatever, six hours of meetings and effort condensed down to a few minutes of briefing.

MIKE CASE: Wow. Well, we appreciate that. So, you're looking for us to go back through the air oxidation in a BWR, the research to see what insights we can glean from that, and what we can pump out to you there in Japan?

MR. CASTO: Right.

MIKE CASE: And, also what would [redacted] or whatever look for to give us an indication of whether we're looking at steam, or Zirc fire, or something else.

MR. CASTO: Right.

MIKE CASE: Distinguish one from another, and then go through that as what are you going to do if you do have a Zirc fire, do you continue to add water, or do you go with solid material like dolomite.

MR. CASTO: Right, or boron, or whatever. You know, what else would we put on it?

[redacted]

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[redacted]

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[redacted]

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[redacted] But it's interesting that, you know--

MIKE CASE: Understand. Anything else we can do to help?

MR. CASTO: No, that's great.

MIKE CASE: Are you getting some shut eye?

MR. CASTO: Oh, yes. We're all getting plenty of sleep.

MIKE CASE: Oh, come on, Chuck.

MR. CASTO: No, actually, I'm doing okay. I get a couple of hours every -- I think twice now I've gotten a couple of hours, so I'm in good shape.

[redacted]

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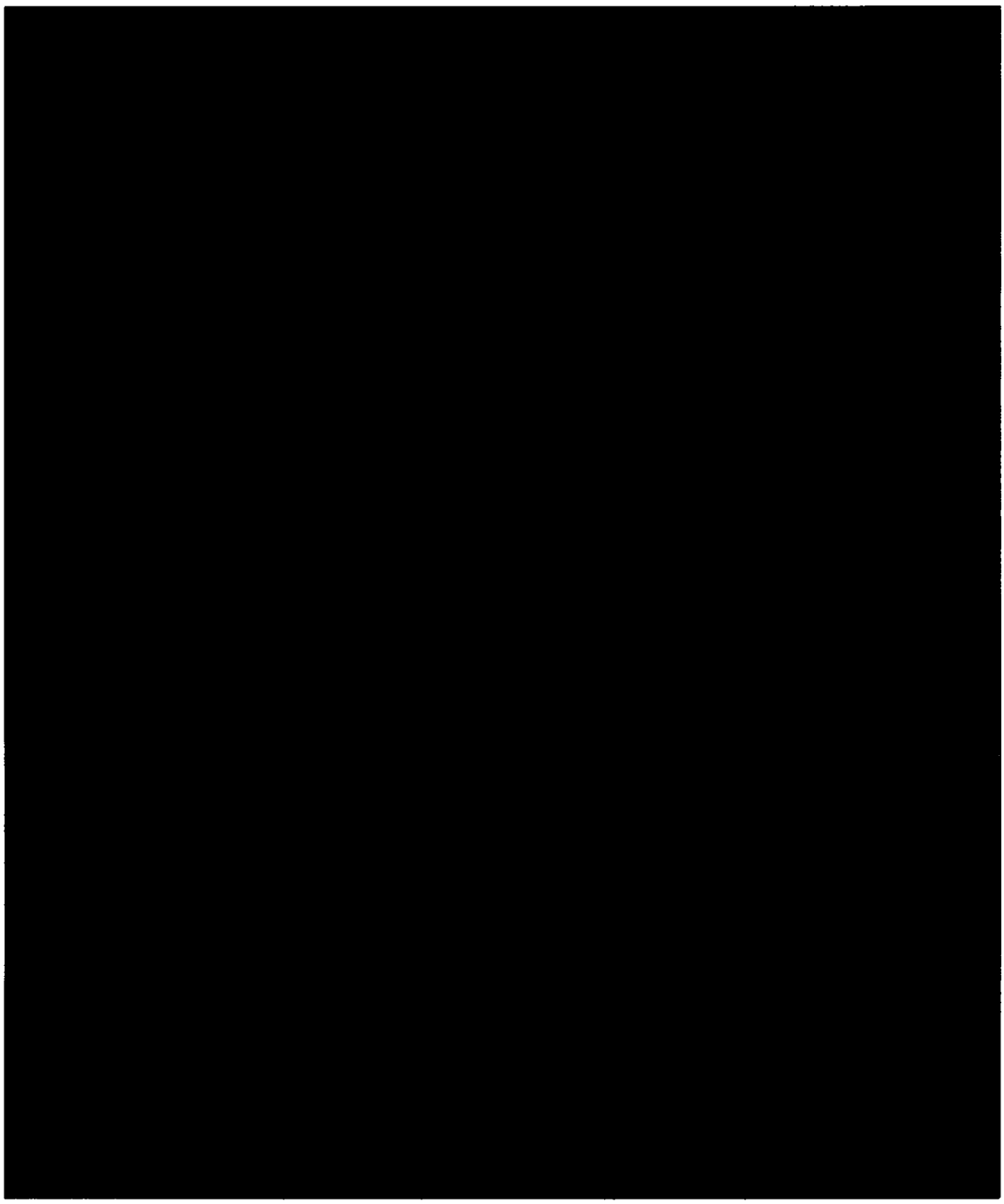

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LAURA: So, is there anything that we should be doing? I have -- I'm finalizing, or trying to work with the industry, INPO, Bechtel, GE, DOE, Naval Reactors, and we have a 1:00 call to sort of help you at 5:00 tomorrow. I know Jim mentioned you guys had a 9:00 a.m. your time meeting again to talk about the strategies.

In terms of dolomite, or any Zirc fire type fighting chemicals, is it available in country? Should we be also thinking about that, or is it just they haven't staged it yet?

MR. CASTO: I don't know the answer to any of those questions. What I would suggest is that -- I don't want to get -- I'm not close enough to it from my position to know what to tell you to do. I know that that's a question that we have about how to extinguish a Zirc fire. What's the best material, if we start one somehow. So, the best thing for us to do is to keep Tim -- Tim is the one that needs the -- when he gets some crew rest and gets back and all the logistic people get that. Rick is working on it, too, I think? Aren't you? Yes. Rick is working on it, too, so I don't want to add the dolomite thing yet until Tim and the guys come up with that conclusion. Does that makes sense?

MIKE CASE: Dolomite should be readily available in country, because --

MR. CASTO: Yes, it should be.

MIKE CASE: It's a common chemical feedstock, so --

MR. CASTO: Yes, we shouldn't have to fly dolomite in from Australia.

MIKE CASE: Are we flying boron in from Diablo, you know, the 20,000 pounds will be flown in, and they should arrive on the morning of the 19th.

[redacted]

MIKE CASE: Okay.

MR. CASTO: And let them -- whatever they want to do with it.

MIKE CASE: The U.S. is sending boron.

MR. CASTO: Yes. So, we should have -- shouldn't be a problem with boron.

MIKE CASE: Well, that's good.

MR. CASTO: Okay.

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MIKE CASE: Anything else you need from us?

RICK: I've got one thing.

MR. CASTO: Yes, Rick's got something.

MIKE CASE: Okay. Go, Rick.

[redacted]

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RICK: If you would send her -- if you would put her on our distribution for our updates, that would be great.

MIKE CASE: Okay.

RICK: And put our group on that distribution. Right now, the updates are coming in via third and fourth parties, and we could use that information directly here.

MIKE CASE: Do we have a group named from the NRC?

RICK: Our group is Embassy Nuclear Energy Team. That's the contact list.

MIKE CASE: At NRC.gov? You've got to have an @ somewhere on that.

RICK: She said drag this to our Outlook contact list.

MIKE CASE: Yes. What it sounds like is if we email her our updates, she will distribute that internally to you.

RICK: That would be fine. As long as we get it directly, because right now I'm having to print bitmaps one at a time rather than just printing a whole Word document.

MIKE CASE: Oh, man, okay. All right.

MR. CASTO: Do we have -- how are we getting -- they're just -- it doesn't matter. We get the updates, right, off of some email?

RICK: We are not getting it

directly. I've been getting them as forwarded from other people.

MR. CASTO: Somehow, you need to --

RICK: We need to get those direct.

MR. CASTO: Can you guys maybe create a WHO address for us, or something that you can send us our own updates? I mean, if you can send them to us individually as individual people, that's fine with us.

RICK: How about if I forward [redacted] 6 email to you, and you drag that contact list into your contact list so that we can get on the distribution?

MIKE CASE: We can try.

MR. CASTO: Yes, whatever is simplest. Just please put us on the distribution list for our updates to come out, periodic updates.

MIKE CASE: Okay.

MALE PARTICIPANT: So, this going to be emailed to RC01?

FEMALE PARTICIPANT: Yes.

MIKE CASE: That will work.

RICK: Okay. I'm forwarding right now.

MIKE CASE: Okay.

MR. CASTO: Are we good?

MIKE CASE: We're good.

MR. CASTO: Thank you all. You're doing great for us, and we appreciate it.

MIKE CASE: Well, thank you. The Chairman just commented when I talked to him moments ago that he was -- everywhere he goes in town, he gets nothing but praise for the NRC responders.

MR. CASTO: Well, you guys have done a great job. It's a team effort, we're all doing the best we can. You know, sometimes we don't get it exactly right, but we're all -- just like everybody there. It's a great agency, with great staff. Everybody has really turned to, it's incredible.

Okay. I'll call you back in an hour or so just to make a periodic touch-in.

MIKE CASE: All right.

MR. CASTO: Okay. Thanks, guys.

MIKE CASE: Thanks, Chuck. Thanks, Rick.

RICK: Yes.

MIKE CASE: So you got these?

FEMALE PARTICIPANT: Yes. The (inaudible) research items.

MIKE CASE: Call Justie Erolson, because I think he gave the briefing for the RSP, but with the turnover, people who are on shift now may not have had that.

MALE PARTICIPANT: And is RST01 the one that's not distributing the updates, or is it really, we've got to tell the people --

FEMALE PARTICIPANT: Yes, but I'm just going to --

MALE PARTICIPANT: Get it to them.

FEMALE PARTICIPANT: Get it to them.

MIKE CASE: Work with the liaison.

FEMALE PARTICIPANT: Yes.

MIKE CASE: Hey, Laura?

LAURA: Yes?

MIKE CASE: On the [redacted] [redacted] I mean, we've got to talk to whoever our expert is on Zirconium fires. 5

LAURA: That's my ex --

MIKE CASE: Well --

LAURA: Yes, I'm going to -- the second one I'm going to get up to Cathy (inaudible).

MIKE CASE: Okay. And how to fight a Zirc fire.

LAURA: Well, yes, extinguish -- how to extinguish. And then, also, what are we looking for, if anything, to distinguish on the [redacted] [redacted] between a Zirc fire and -- 5

MIKE CASE: Right. Look at chemical

emissions, is it temperature, is it -- can we distinguish steam from zirconium fire?

MALE PARTICIPANT: The way the plume rises, I mean, anything that they could use to help them --

MIKE CASE: I think temperature would tell you a lot.

LAURA: Yes. Well, exactly.

MIKE CASE: It is 4,000 degrees, or is it --

LAURA: They can do that analysis (inaudible).

MIKE CASE: Yes, but if we had more remote, or more proximal detection we may be able to know right away if it's a zirconium --

MALE PARTICIPANT: I know it's a handheld device, but --

MIKE CASE: The firefighters can go in with the infrared detectors and say yes, that's hot.

MALE PARTICIPANT: But then they can just -- the colors are graded by --

(Simultaneous speech.)

FEMALE PARTICIPANT: I don't know what -- why they're not doing it.

FEMALE PARTICIPANT: So, the other team, I

guess this is -- we're going to have to figure this out a bit. All these plans, and all these strategies, if we've got five pumps sitting there now and they're not using them, we send four more trains of pumps or, you know.

MIKE CASE: Well, we won't send them unless we know that you're going to use them. Right? If he's going to pull the trigger on all the stuff.

MALE PARTICIPANT: We're just still in this banking -- get it from Australia?

MIKE CASE: Yes, it hasn't started moving.

FEMALE PARTICIPANT: I would think they may be starting to push it in a certain direction in Australia, but it hasn't moved.

MIKE CASE: Not being loaded on an airlift.

MALE PARTICIPANT: Okay. Who are we expecting to make that decision?

MIKE CASE: I think AID would pull the (inaudible).

FEMALE PARTICIPANT: Yes, here's the idea, and this -- is that we put together the three plans (inaudible). We have a 1:00 call to get alignment on that. What we're really trying to do, they have the point of contact on our team is going to call -- now

it's like seven hours until he needs (inaudible) information.

MIKE CASE: Latest video of their reactors.

MALE PARTICIPANT: Get some water in that pool.

MIKE CASE: Chuck thinks there's no water in the pool, no steam coming out of it.

MALE PARTICIPANT: (Inaudible) cool.

MIKE CASE: No, the water is gone.

MALE PARTICIPANT: I wonder if this is a video that shows (inaudible).

MIKE CASE: Thanks, Laura.

LAURA: Thanks.

MIKE CASE: Yes, I don't see anything there.

(Background conversations.)

MIKE CASE: Focused on cool --

MALE PARTICIPANT: That's a greater danger.

MIKE CASE: But we're also focused on Unit 3 spent fuel pool.

MALE PARTICIPANT: Absolutely.

MIKE CASE: I would say we're focused on the whole site. You know, what's important rises and

falls based on the latest information. I just heard now that Unit 1, apparently the roof collapsed on top of the spent fuel pool.

MALE PARTICIPANT: Well, we're waiting for the Chairman to call.

MIKE CASE: (Inaudible) that Unit 1 had a problem.

MALE PARTICIPANT: But the back roof is (inaudible).

MIKE CASE: Unit 1, the roof collapsed onto the fuel pool, so we don't know what the status is of the fuel in the pool for Unit 1. So, that could be as dry as Unit 3 or 4.

MALE PARTICIPANT: Right. That was a deserving little update.

MIKE CASE: We couldn't get the White House press conference --

MALE PARTICIPANT: (Inaudible) on the line.

MIKE CASE: Thank you for that (inaudible) book. In the time we've been in here, I think they've sent out like four or five updates.

MALE PARTICIPANT: Okay, the other book, Mike?

MIKE CASE: Yes, that one.

MALE PARTICIPANT: The status reports?

MIKE CASE: Yes.

MALE PARTICIPANT: The status reports, the one (inaudible) and this one.

MIKE CASE: Yes.

MALE PARTICIPANT: Somebody in a prior shift said they were going to do them in six and six, unless something changed.

MIKE CASE: Okay. All right. So, 06 and 1800.

MALE PARTICIPANT: For what, Mike?

MIKE CASE: For the CIT rep.

MALE PARTICIPANT: CIT rep.

MIKE CASE: Do I have an update of the (inaudible).

MALE PARTICIPANT: We have the slides that they made for you for the --

MIKE CASE: Oh.

MALE PARTICIPANT: Tim, I thought he'd be speaking with you.

MIKE CASE: No (inaudible). Star zero, right?

MALE PARTICIPANT: Yes.

MALE PARTICIPANT: Is this your's?

MIKE CASE: Oh, yes, I've got to go to

that. You want to --

MALE PARTICIPANT: Let me, I'll take it.

MIKE CASE: Yes. We go in the back here.

(Background conversations.)

MIKE CASE: Very minor language changes necessary, or (inaudible).

MALE PARTICIPANT: Like I said, I don't know that it's --

MIKE CASE: That's okay. We'll see if he has (inaudible).

MALE PARTICIPANT: Hey, Doc, how are you doing?

MALE PARTICIPANT: Good. How are you doing?

MALE PARTICIPANT: Come to my office.

MALE PARTICIPANT: Huh?

MALE PARTICIPANT: Come to my office.

MALE PARTICIPANT: Good.

(Background conversations.)

(CONFERENCE CALL INITIATED)

MALE PARTICIPANT: Chuck and Charlie here.

MIKE CASE: Yes. Hey, Charlie.

CHARLIE: Hi. Nora is with me. Here's the question. Laura has been working diligently with all the counterparts trying to get the assets together, and we're trying to get hardware.

The question becomes, I guess there's a lot of good stuff that's (inaudible).

LAURA: First, there's other things (inaudible).

CHARLIE: Here's the question. A recommendation from you on when would we want to have it go to Japan?

MALE PARTICIPANT: Yesterday.

CHARLIE: Okay. I mean, the were different views here concerning if they haven't accepted it, should we ship it, or should we put it there. And the recommendation was to hear right from you.

MALE PARTICIPANT: I think -- look, I mean, nobody knows what the ultimate might be. But

[redacted]

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[redacted]

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[redacted]

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CHUCK: Well, let me find out -- I hate to do this, but I'll have to wake Tim up and figure out what he -- but I know DART was in that meeting. Well,

let me try to get [redacted] Do you have a number for him?

FEMALE PARTICIPANT: I don't, but you know what, here's the thing. We have another call at 5:00 our time, which is three hours, so 6:00 a.m. your time. So, instead of waking Tim up --

CHUCK: Yes, get on that call, because I know Tim is the man. And he -- what I remember him telling me was a couple of things. One, DART was in the call, in the meetings all evening, so I presume they're plugged in. The other thing is he told me that DOD, and then told them that this is easy. This is easy for them to do. Then we've just got to tell them to do it. And they do this all the time, and this isn't a big challenge for them. This is a minor challenge for them. So, those two factoids, I don't know how to put those together, but that's all I know. I wish I knew more, but --

FEMALE PARTICIPANT: I'm sensitive to waking up Tim, because I still think that Bechtel is still -- they're still going to need a few hours to stage at (inaudible), so I'd rather have Tim get a few more hours of sleep. And then at the 5:00 call, we'll have a USAID person on there, and we'll make sure that we're clear on we are going to move --

CHUCK: Okay.

FEMALE PARTICIPANT: -- to stage all this equipment, at a minimum Yokoda as soon as possible. And then we still need to work on some logistics about personnel, and training, and other things.

[redacted]

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One of the things I need to talk with you about, Laura, is I don't know what the prognosis is of three days of that spent fuel -- those spent fuel

pools sitting there empty. You know, is the building providing enough heat sync that the temperatures have risen, and they're going to stabilize, and they're not going to go up anymore, you know. Is that the situation where there's enough building -- the buildings are conducting the heat away, and they're just sitting there? I mean, it's likely all four of these pools are dry. And what's going to happen in three or four days before we get the equipment staged?

The second thing that we've been talking about here tonight is something that's been brought up before, is we pull the water -- I mean, I was at the POX event in Hungary. I know about pouring cold water on hot fuel. We all know what that does. That's going to rubblize those fuel pools. And unlike the POX event, which you only got a gas release because that event happened underwater, here you put that water on that hot fuel and rubblize it, you're going to get particulate also. So, you're going to have some level of significant release when you put that -- plus it's being carried away in the steam.

So, the dilemma we're thinking about here tonight is, is water the right thing to do? What are the options you have, and is water the right thing to do?

I mean, this was all never-never land. We're all in never-never land. And we've just got to do what we think is -- multiple solution tasks, multiple attempts, that's why we want to know about the Zirc fire issue, is because we want to be able to -- we don't want to be like them in terms of just throwing solutions at the problem. We want to have learned solutions and a way to identify whether our solution is being effective, or not. And not just let's try this, let's be prepared to have some outcome measurement of whether that solution, that individual solution is being successful. [redacted] we can actually use instrumentation to tell us what's being effective. That's why we need the answer to the zirc fire, and all the other things.

And then our latest question is, should we even attempt to put water on this thing? I mean, we could move all this equipment, and find out when we start pouring water in there that that's actually the wrong thing to do, because we're causing zirc fire reactions, or we're causing a rubble bed, and go to all (inaudible).

I mean, (a) this stuff may not be accepted; (b) it may not be the right technical

solution, you know, C, D, E, F, and G. You know, we don't know. I guess I'm just kind of venting. I'm sorry.

FEMALE PARTICIPANT: No, I understand what you're saying.

CHUCK: So, we're in such never-never land, and I don't really know how to make decisions when you have very little information, very little control over situations. But we're just trying to move forward on a solution, multiple solution path, and that's the dolomite question, boron, all that stuff.

And the best insight you guys can give us on what's the right solution path; I mean, we've devised a solution path and came up with a rudimentary drawing, and we think that -- two days ago, we thought that was the best solution. But what we've learned from this is things change pretty dramatically.

[redacted]

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BRIAN McDERMOTT: Right, but I'm just listing -- this is Brian McDermott, Chuck. I just

listed to you that the high-pressure spray, I mean, in terms of just the a way to knock down particulate, that has value. Right?

CHUCK: Yes.

BRIAN McDERMOTT: And I --

CHUCK: Go ahead.

BRIAN McDERMOTT: I understand what you're saying about the concern about dumping the water on that. I think we've already tasked the Reactor Safety Team to provide, one, advice on how to determine which method to use, whether the pool is wet, or whether the pool is dry. And then, secondly, what technique to apply to it for cooling in those two scenarios. And I don't know how the --

FEMALE PARTICIPANT: We've got -- Cathy has (inaudible).

BRIAN McDERMOTT: Okay.

CHUCK: Yes, I would ask you to be bold. I mean, make sure we're linking up with INEL and all, INPO and everybody to come up with -- not just a couple of people in our Reactor Safety Team sitting in a corner. I mean, I -- we've got to get all of our best intelligence on this, even GE, from INPO, whomever.

BRIAN McDERMOTT: Yes.

FEMALE PARTICIPANT: Yes, and every four hours we have a call with Bechtel, INPO, GE, Naval Reactors, DOE.

CHUCK: Oh, that's great. That's great.

FEMALE PARTICIPANT: NRC.

CHUCK: That's great. So, what we need from that team are some recommendations, you know. What's our --

FEMALE PARTICIPANT: Yes, I will definitely get that, and work that on the next call. What they were directed to do when this was started was they were designing the pumping system for you. So, that's where everyone's focus has been.

CHUCK: Right.

FEMALE PARTICIPANT: Now, we've actually added some additional plans on there, so you'll have multiple strategies. I mean, I'm going to say this out loud, because I just stated it on the call with those groups. I mean, our goal is to get you strategies for how to deal with these priorities in the fuel pools, so right now we're working on four options. And we're trying to get that to you. In my mind, you have a 9:00 -- Tim called and said he had a 9:00 a.m. meeting.

CHUCK: Right.

FEMALE PARTICIPANT: So, we're trying to get you some strategies for how to deal with this by that time in writing, with details, with equipment, with some kind of focus that we can actually achieve the results, and plan -- the call we had with you earlier, the strategies have to keep in mind that you have to get a measurable mitigative result for the RAD that you're going to be exposing the people to.

CHUCK: Right. So, what we need you guys to think about is, we need a way to tell whether that strategy is effective or is making the problem worse.

FEMALE PARTICIPANT: Right.

CHUCK: That's what -- we need to know the strategy, and we need to know how, make it worse, make it better. You know, and then on the equipment issue, I hate to say, I don't know, hold off, because I'm reminded of General MacArthur who said that every battle, every loss, and every war and every battle can be boiled -- the root cause can be boiled down to two words, too late. You know, we did this too late, we did that too late, and we lost the battle. So, I'm hesitant ever to say let's hold off.

FEMALE PARTICIPANT: I've also got B5B nozzles from Oconee on their way to INPO. And we can ship this out, as well, because they've got the range,

and the mist, and other things. We've actually moved them off the Oconee site, but we haven't shipped them out yet. They're waiting on word from us. But that's going to be part of the strategy for you.

CHUCK: Okay, well --

FEMALE PARTICIPANT: And we will try and move that.

CHUCK: Well, you guys are awesome. That's a great team. I'm really encouraged that you got that team put together, because that's we need. We're going to need all the great minds together, and let's solve this as an American nuclear industry helping the Japanese nuclear industry, not just the NRC.

I did note in the press accounts, I don't know, you guys probably already know this, but that regulator, NISA, the nuclear agency here admits that number 4 doesn't have any water in it. So, hopefully, we've got that issue behind us. I think people are lining up on it. There hasn't been any water in that spent fuel pool, but we'll see, ultimately, the answer to that.

So, we really appreciate all of that work, and that's the most crucial, that's the most important work we're doing, is you guys coming up with those

strategies and the outcome measurement, and moving equipment. [redacted]

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FEMALE PARTICIPANT: Chuck, I got a message that I needed to call you. Is this --

CHUCK: Yes, that was -- we just had that conversation.

FEMALE PARTICIPANT: Okay, good.

CHUCK: Everybody good back there, everything going okay, anything we can do for you guys?

FEMALE PARTICIPANT: Yes, I think you should get some sleep, Chuck.

CHUCK: Yes. Do I sound like I need it? (Laughing.)

FEMALE PARTICIPANT: I think it's only going to be --

CHUCK: I'm not being crappy at you, am I?

FEMALE PARTICIPANT: No, not at all, but I think the day is going to get longer.

CHUCK: Yes. We're -- I'm going to -- in about an hour and a half here I'm going to go try to get some sleep until 7-8:00 a.m. when things will start really firing up here again, around 7 or 8:00, so I want to try and get a couple of hours. Right now I just even feel tired, so I'm okay.

FEMALE PARTICIPANT: I know.

CHUCK: Anyhow, you guys, too. I mean, you guys got -- I would imagine this is having a huge impact on the agency.

CHARLIE: Yes, it is.

CHUCK: I can't imagine.

CHARLIE: Yes, it is, but not the impact on us it's having on you.

CHUCK: Well, no, it sounds to me like it's having a big impact. And it's great that the agency turns to, and got this -- because we're definitely making a difference out here, particularly with the Ministry of Defense, and DART, and all those people. We're making a difference. They're looking at us for some solutions, and it's coming from you guys. So, I think I'm encouraged, and I think we're in the groove here.

CHARLIE: Okay.

CHUCK: All right. Talk to you later.

CHARLIE: All right, thanks, Chuck.

CHUCK: Bye.

FEMALE PARTICIPANT: Bye.

(CONFERENCE CALL INITIATED)

MALE PARTICIPANT: (Inaudible) Operations Officer. Mr. Casto, are you on the bridge?

MR. CASTO: Yes, sir.

MALE PARTICIPANT: Okay, stand by.

MR. CASTO: Okay. Laura or -- particularly Laura, I think, or Duke.

MALE PARTICIPANT: All right. Stand by.

MALE PARTICIPANT: I tell you, the Chief does send those models. He just sends, kind of what I was trying to ask him for, and he asked me to hold off until we talked to -- but I can call him right back (inaudible).

MALE PARTICIPANT: She can tell him. He's right there with her.

MALE PARTICIPANT: Okay.

MALE PARTICIPANT: Right? I mean, he's in NRC headquarters.

MALE PARTICIPANT: In headquarters. He's in Operations --

MALE PARTICIPANT: Yes.

MALE PARTICIPANT: Is that community property over there? Is that (inaudible).

MALE PARTICIPANT: I guess it is.

MALE PARTICIPANT: Somebody just brought

some random stuff (inaudible). This lady from the State Department hasn't replied back.

MALE PARTICIPANT: Who is it?

MALE PARTICIPANT: (Inaudible). She was the one that asked us for a copy of the daily updates, and I couldn't get it to her.

MALE PARTICIPANT: Are you able to get in touch with your family?

MALE PARTICIPANT: I can, but the --

BRIAN McDERMOTT: Hey, Chuck, this is Brian McDermott. I just want to confirm, you wanted to talk to Laura Dews. Is that correct?

CHUCK: If she's available.

BRIAN McDERMOTT: Yes. Hang on, we'll get you back there.

MALE PARTICIPANT: My family is two collies, so -- I called my sister and stuff to let her know just before I left, but I haven't really communicated since then.

MALE PARTICIPANT: We just got this document. You know Kathleen O'Donohue. Right?

MALE PARTICIPANT: Yes.

MALE PARTICIPANT: She just sent me a document that addresses in detail works schedules and premium pay for individuals who --

MALE PARTICIPANT: Yes, and they need to go to the whole team.

MALE PARTICIPANT: That's why I brought it up, so I'm going to print it out.

MALE PARTICIPANT: Let's print it out.

(CONFERENCE CALL INITIATED)

MALE PARTICIPANT: Hi, Mr. Casto. Yes, would you please press *0 so I can transfer you to another conference bridge?

MR. CASTO: Sure. I think I can.

MALE PARTICIPANT: All right. I'm going to place you on another bridge, and then we'll get Laura. NRC1-6111.

MR. CASTO: Michael, are you there, or the Chairman on the White House briefing. Michael, are you there? Michael Dudak, are you there?

MICHAEL DUDAK: Yes, sir. How are you doing?

MR. CASTO: All right.

MICHAEL DUDAK: Yes, sir. How are you doing?

MR. CASTO: All right.

MICHAEL DUDAK: My apologies for the confusion. My apologies for the confusion. I'll turn it over to Mark.

MARK ERLINE: Mark Erline, the Director of Ops. My apologies. Apparently, our ledge folks had some confusion over the phone numbers, and I think that's what failed everyone, folks who dialed into another line. So, we're going to work that, and

tomorrow have a single phone number going forward. So, again, my apologies.

MR. CASTO: Yes, there were, I don't know how many, but the impression I have is that there were a large number of people on that old phone number.

MARK ERLINE: That's (inaudible). We know from feedback we've gotten this is becoming a very popular call, so that was really not well (inaudible) on our part, and we'll get it cleaned up tomorrow for sure.

Just a quick rundown of what went through. I mean, the call mainly focused on (inaudible) issues. It was announced about missing Americans last night. And there was also a revelation of a radioactive cloud, I think it was Miller that talked about that. And it would have been great to have had some more detail on that. But just to let you know that was out there, and that'll come up again tomorrow in terms of more information.

BRIAN McDERMOTT: So, the radioactive cloud you're talking about, you're talking about on the ground in Japan?

MARK ERLINE: That's correct.

BRIAN McDERMOTT: Okay.

MALE PARTICIPANT: Brian, from my

understanding that NOAA actually gave a -- they stated a 19-mile radioactive cloud moving down the Japanese coast.

BRIAN McDERMOTT: Down the Japanese coast.

MALE PARTICIPANT: Where is that coming from?

MALE PARTICIPANT: Yes, we don't know.

MALE PARTICIPANT: That's why I called you, as soon as I was notified, and said get this to Public Affairs, and we'll try to head this off at the pass. But I don't know the impetus behind why it was stated.

MALE PARTICIPANT: And that's what they reported on this call?

MALE PARTICIPANT: Yes.

MALE PARTICIPANT: Okay. Do we know who the representative was on the call?

MALE PARTICIPANT: I could go back and find that out for you and pass that through Michael.

MALE PARTICIPANT: That would be good.

MALE PARTICIPANT: Yes.

MALE PARTICIPANT: Okay. We'll work back through our Protective Measures Team to see what NOAA's got, and what they're passing along there.

MALE PARTICIPANT: Okay. So, again, my

apologies, and look forward to having you guys on the call tomorrow.

MALE PARTICIPANT: Yes, we like those calls.

MALE PARTICIPANT: Yes, sorry.

MALE PARTICIPANT: We like to participate.

MALE PARTICIPANT: Okay, we like having you, believe me.

MALE PARTICIPANT: All right.

MALE PARTICIPANT: All right. Take care.

MALE PARTICIPANT: All right. Thanks.

MALE PARTICIPANT: Michael, do you need anything?

MICHAEL DUDAK: I do not. My apologies, again, for the confusion, and the -- I will definitely get that number for you tomorrow.

MALE PARTICIPANT: Okay. Let's move on.

MICHAEL DUDAK: Okay. Thank you.

MALE PARTICIPANT: Thank you.

(CONFERENCE CALL INITIATED)

HEADQUARTERS OPERATIONS OFFICER: This is the Headquarters Operations Officer. Chairman has been to the bridge.

[redacted]

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[redacted]

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[redacted]

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(CONFERENCE CALL INITIATED)

HEADQUARTERS OPERATIONS OFFICER: This is Headquarters Operations Officer. We transferred a gentleman in Japan on our team to the bridge.

RICK DeROSELLI: Yes, this is Rick DeRoselli and --

JACK FOSTER: Jack Foster.

RICK DeROSELLI: -- Jack Foster, Japan Team. Is there any other active engagement going on on the bridge right now?

MALE PARTICIPANT: No.

RICK DeROSELLI: Okay. Is Jim Shay available, please?

MALE PARTICIPANT: Jim Shay.

MALE PARTICIPANT: Yes, you've got the Executive Team room. Is that what you wanted?

RICK DeROSELLI: Okay. I guess I went to the wrong spot.

MALE PARTICIPANT: Tell me what you want, and we'll get you there.

RICK DeROSELLI: We're looking specifically to talk with Jim Shay, please.

MALE PARTICIPANT: On which team, Protective Measures?

JACK FOSTER: I would probably think he

might be on the RST.

RICK DeROSELLI: Yes, probably RST. Sorry, I'm a little tired here.

MALE PARTICIPANT: That's all right. Don't worry about it. We'll get you there, hang on.

RICK DeROSELLI: Thank you. I should have known I didn't want the AT bridge.

JACK FOSTER: Yes. (Inaudible) but the AT bridge, that's for the Chairman.

RICK DeROSELLI: Okay.

JACK FOSTER: Jim might not even be there right now.

RICK DeROSELLI: Yes, I'm going to have to figure out some --

JACK FOSTER: Sure.

RICK DeROSELLI: Should probably just do like you said (inaudible). No, not yet. I got three shirts, three ties, and a jacket over there.

JACK FOSTER: You did?

RICK DeROSELLI: Yes.

JACK FOSTER: What size shirts do you wear?

RICK DeROSELLI: [redacted]

JACK FOSTER: Okay.

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(CONFERENCE CALL INITIATED)

MS. COOK: Hello, this is Annette (inaudible) Cook speaking. Is anyone on the line?

JACK: Annette, this is Jack. We're here. Annette, can you hear me?

MS. COOK: Yes.

JACK: Okay.

MIKE CASE: Are you calling in for the Chairman's brief?

MS. COOK: Yes.

MIKE CASE: Okay.

MALE PARTICIPANT: Okay, the permanent (inaudible), is that something -- I'm sorry, what time was that?

MALE PARTICIPANT: Oh, 2130.

MALE PARTICIPANT: 2130.

MALE PARTICIPANT: And it (inaudible).

MIKE CASE: Sounds like the Ambassador's (inaudible).

MALE PARTICIPANT: Oh, this is the one who (inaudible).

MALE PARTICIPANT: Yes.

MALE PARTICIPANT: And we have a role (inaudible). The USAID is --

MS. COOK: Hey, guys, you know I'm hearing

everything, so do you want to --

MIKE CASE: That's okay.

MALE PARTICIPANT: Did you see what Annette was wearing yesterday?

MS. COOK: (Laughter.)

MALE PARTICIPANT: Sorry, we'll put you on mute.

MALE PARTICIPANT: Hello.

MS. COOK: Yes. Hi, Commissioner Magwood.

COMMISSIONER MAGWOOD: Yes, and Bill Ostendorff here.

MS. COOK: Okay.

STEVE: Annette, this is Steve.

MS. SENEKI: Christine Seneki is here.

JACK GROBE: This is Jack Grobe in the Ops Center. Folks are still gathering here. The Chairman hasn't arrived yet.

FEMALE PARTICIPANT: Commissioner Apostolakis, are you on the line?

COMMISSIONER OSTENDORFF: Annette, Bill Ostendorff here.

MS. COOK: Yes?

COMMISSIONER OSTENDORFF: Have we locked down a Commission meeting time?

MS. COOK: We're shooting for Monday at

9:00. I'm just waiting for --

COMMISSIONER OSTENDORFF: Okay.

MS. COOK: -- confirmation from the Chairman on the scheduling note, and the follow-on meeting. And I think he's been just tied up.

COMMISSIONER OSTENDORFF: Okay.

MS. COOK: I mean, I've talked to his staff, and I'm just waiting so that I can then let you guys know, and make the announcement to the public, as well.

COMMISSIONER OSTENDORFF: Okay. Thank you.

MS. COOK: Commissioner Apostolakis, are you on the line? Maybe the Chairman is talking to Commissioner Apostolakis.

COMMISSIONER APOSTOLAKIS: Hello?

MS. COOK: Hi. Commissioner Apostolakis?

COMMISSIONER APOSTOLAKIS: Yes.

MS. COOK: Okay. I'm just -- we're just waiting for the Chairman now.

COMMISSIONER APOSTOLAKIS: Okay.

MALE PARTICIPANT: Ms. Cook, are you on the line?

MALE PARTICIPANT: Hey, Donald, I transferred (Inaudible) off to the management bridge.

MALE PARTICIPANT: Okay. And did the Chairman ever get on the line?

MALE PARTICIPANT: The Chairman is on the line with them, and giving them a brief right now.

MALE PARTICIPANT: All right. Thank you.

(CONFERENCE CALL INITIATED)

MALE PARTICIPANT: Chuck, are you there?

CHUCK: Yes, I'm here.

MALE PARTICIPANT: Good morning.

CHUCK: Good morning. How are you all doing?

MALE PARTICIPANT: We're doing great. Did you get some sleep?

CHUCK: I did, I got a couple of hours. I got about two and a half hours, so I'm golden this morning.

MALE PARTICIPANT: Yes. Okay.

MIKE CASE: So, we're in the ET room, and there's Charlie, and Jack, and myself, and MJ, and Jim Dire, and coordinators, and we've got someone recording the call, making notes just to warn you.

CHUCK: Okay. I guess my focus for this morning is after sleeping on it and thinking about it, is the Chairman -- I'm going to get interrupted because they're going to bring in -- I promised those guys I would look at that. Standby, headquarters, standby for a second.

MALE PARTICIPANT: This is your summary you're going to give to the Ambassador?

MALE PARTICIPANT: Yes. He's actually got

a copy of it. It was emailed, pretty wide distribution.

CHUCK: Headquarters, you can listen on this. We're basically looking at DOE's latest flyover assessment of dose. And they've got a presentation here to show -- would you want me to call you back, or do you want to listen to this briefing?

MALE PARTICIPANT: No, go ahead. I think we have the same paper in front of us.

CHUCK: Okay.

MALE PARTICIPANT: Did he say they got the same thing?

CHUCK: I think he said -- this says AMS measurements.

MALE PARTICIPANT: Yes, we (inaudible).

CHUCK: Okay. So, they do have it. All right. Go ahead.

MALE PARTICIPANT: Okay, just real brief, I mean, you can see what's going on. We did two flights yesterday, and these are presenting the (inaudible) measured at one meter. One of the problems is we don't (inaudible), how much of this dose is due to airborne, and how much is due to deposition. So, the assumption is that deposition, that's probably a little bit on the conservative side.

So, it may overestimate it slightly.

The next page, this really just shows the track. It doesn't show really good detail. Go to the next one. You can see the area around the plant, so that's a 13-mile line. And close in we're getting some pretty hot stuff, but it also drops off pretty quickly. So, one to ten.

MALE PARTICIPANT: Hey, Chuck, are you looking at a sheet that has the lines indicating the flyover and the measurements in colors?

CHUCK: Yes. It has a 13-mile --

MALE PARTICIPANT: Yes.

CHUCK: It's just west of the plant, the first line that appears to be red and orange. You figure that's about a mile from the plant? And those numbers are on the order of between 10 and 30 millirem per hour metered from the surface is what DOE is telling us.

MALE PARTICIPANT: Right.

CHUCK: So, our estimate is that that is ground deposition when the wind is blowing inland, then the first explosions occurred. That's our sense of what this means.

MALE PARTICIPANT: Understand.

MALE PARTICIPANT: What were the

(inaudible) of the plant (inaudible)?

CHUCK: What were the readings when?

MALE PARTICIPANT: At the plant boundary last night. Could any --

CHUCK: The plant's boundary readings, of course, that would be substantially less than a mile, are on the order of 150 millirem per hour, to 1R per hour. And the dose rates, the most recent information we have, and this is from yesterday, would range between 330 and 300R per hour directly over the plant, and in the vicinity of the plant. Maybe down as low as 10R per hour.

MALE PARTICIPANT: Okay. So, I was just wondering if any of that would --

CHUCK: Try to turn it down see if we can get that info out of here.

MALE PARTICIPANT: (Inaudible) showing from the plant?

CHUCK: Based on our interpretation of this, it doesn't appear to be shine from the plant, because you can see just north of the plant there's a path for the flyover that did not detect anything. So, this was shine from the plant, you would see it essentially 360 degrees around the plant. So, we believe that this is ground-based deposition.

MALE PARTICIPANT: Unless there's some kind of shielding in the way.

CHUCK: You're talking about a plane that is quite a bit elevated, and taking these readings. And they're projecting what these readings are at a meter above the ground.

MALE PARTICIPANT: Right. Okay.

CHUCK: Okay?

MIKE CASE: I'll accept that.

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JACK: Hey, Chuck?

CHUCK: Yes?

JACK: Let me just --

CHUCK: DOE is going to go brief the Ambassador, so I'm back on with you guys.

JACK: Let me just share with you a couple of ways that I've explained this, and maybe it will help you.

First off, you have to recognize that the plume is going out to sea right now.

CHUCK: Yes.

JACK: And there are no measurements here --

CHUCK: Yes, that's another --

JACK: Right.

CHUCK: There are no measurements in the plume which we would typically have in an emergency response. So, we don't actually know what is in the plume. These are measurements of deposition that was made several days ago.

JACK: Right. We've got this.

CHUCK: That's our assessment.

JACK: The second thing is, that you assign protective action recommendations not just based on what you currently measure relative to the guideline. You assign those based on what you measure, and how well you understand what's going on in the reactor, and in the spent fuel pool, and what your reasonable projection is of what might happen in the future.

CHUCK: Yes, I think the DOE guys got that.

JACK: Okay. And the basis for the projections that we had really hasn't changed. And that was two dose estimates, assuming substantial fuel damage in spent fuel pools in reactors. And there is different conditions of the containment, and projecting what doses we could expect if the wind shifts around to the land, which we expect to happen in --

CHUCK: Jack, seriously, I've got to move on, but we'll get all that to him. That's no problem. The DOE guys will get that, and if he asks me hey, what the hell is going on, or what's going on, I can explain it to him.

JACK: Okay.

CHUCK: One of the things I want to talk

about was, with you guys, and Jim. It occurred to me this morning about the Chairman, and the potential -- he needs to probably be thinking about coming over here. I don't know if that's within the realm of possibility, but if you'd plant that seed and see what kind of -- what grows out of it.

You know, the technical guys are worrying about all the technical stuff, and they're doing a wonderful job on dose, and recovery strategies, and the Reactor Safety Team did a wonderful job last night.

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So, I just want to plant a seed about, you guys know the guy in charge, the General in charge always got to make a site visit sometime to have credibility. So, timing of a visit, maybe it's too early, maybe it's -- but I'm thinking that he might be -- his presence might be able to help us with the TEPPCO situation.

So, I need, if you guys would that T that up with Bill, and Marty, and decide from the ET perspective how you would approach that.

JACK: Chuck, I understand what you said, and we need to talk about that a little bit more. But what's important to me right now, what time do you

have to brief the Ambassador?

CHUCK: Well, that's continuous.

JACK: What time do you have to leave this call?

CHUCK: I've got time.

JACK: Okay. I want to talk a little bit when you have time about information flow on two things. One is the condition of the plant, and the second one is radiation measurements to make sure that we have a good sound flow of information to you so that you can have knowledge that you can trust on what's going on. Similarly, for our teams back here, that we're all working from the same set of information. So, I want to talk a little bit about information flow.

I want to talk a little bit about how we're supporting you with this solution approach that Bechtel is working on, and we're working on. And what your expectations are there, and how we're supporting that, and what kind of time frames for deliverables, and things like that.

And I also want to talk about the staffing that you have, and whether or not that's sufficient, and what your thoughts are on that. So, when would be a good time to talk about that. Do you want to talk

about it now, or do you want to talk about it later?

CHUCK: No, I want to talk about it now.

JACK: So, let's start -- I guess --

CHUCK: I can --

JACK: What information are we getting about the plant, and how do we get it? And how do we make sure that we're all operating with the same information?

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JACK: Okay.

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JACK: Yes.

CHUCK: And we get information --

JACK: Hey, Chuck, what I'd like to do then is I'd like to make sure that on some periodic basis we provide you a status of what we understand the plans are, and then we all are operating with the same set of information. And if any of us get information that changes that, we update each other on a regular basis. Okay?

CHUCK: I think we're doing it. I don't understand what the problem is, Jack. I think we're doing that.

JACK: Okay, good.

CHUCK: Every time one of those guys come back from a briefing, we call the Ops Center and give the information we have.

JACK: Okay.

CHUCK: And we have status updates, so if there's something that we're not giving you let me know.

JACK: It sounds like we're connected there. The second thing is radiation measurement data. We are on the phone I think it's every six hours with DOE now.

MALE PARTICIPANT: It's more frequent.

JACK: More frequent than that. Are you getting the radiation -- because you were just getting the AMS data from DOE, and I want to make sure that you guys are getting that as quickly as we are, and we have a shared set of information on radiation measurements, as well.

CHUCK: Yes. We had it earlier, we had the data earlier. They had a PowerPoint presentation they were carrying up to the Ambassador, and they wanted to run it by me before they showed it to the Ambassador. That's the reason that it seems like we're not getting the data. The guys already had it. I just got into the office 30 minutes ago, so our guys, Jack Foster and others had already looked at the data.

MALE PARTICIPANT: Exactly. Chuck, are we getting periodic plume maps from GIS Central, do you

know?

CHUCK: Not yet.

MALE PARTICIPANT: Because I haven't seen one in a while.

CHUCK: No, I haven't seen one at all. Have you seen an actual measured plume map?

MALE PARTICIPANT: Is that a question?

CHUCK: Yes.

MALE PARTICIPANT: I haven't seen one in a couple of days. I haven't seen one in a couple of days. I mean, I'm assuming that your mapping changing of net conditions that we would (inaudible).

JACK: I think you have all the information we have.

MALE PARTICIPANT: Okay.

JACK: And we've just got to make sure that we keep it coming in a consistent way. The next thing is Fred is sitting here, and he's our Reactor Safety Team Manager, and he just got off with INPO and Bechtel.

FRED: And Chuck's folks were on that, and Chuck caught the tail end of it, too.

JACK: Okay. Are you fully up to speed with the status of that activity, Chuck?

CHUCK: Probably fully up to speed, but I

got Tim and them working on it. There's too much to try to keep track of, and Tim is in charge of that, and the recovery effort. And he's got it.

JACK: Okay, good. And --

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JACK: Okay. And then the last thing has to do with your team. My sense is that you've gotten about six hours of sleep since you landed. And you guys are going to be there for the long haul. And I was wondering are you getting into some sort of a predictable rotation where folks are getting rest? And do you have the right people there, do you need different people? Because we're planning on sending the next wave over, the next tsunami of responders, I apologize for that. The next wave over, and we want to make sure it's the right people at the right time. Do you have any thoughts on that?

CHUCK: Yes. What I'd like to do is, each of the people that are over here, I would like for them to give me a list, or look at the list and tell me who they think is the best person to replace them. Most people know somebody at their talent level in the Agency, so I would give everybody a chance to weigh on give me a recommendation. And then we'd map that together with your list, and make sure we're comfortable with the people we're sending.

So, this morning I was going to ask the team here to come up with two or three names, or we could have them look at your list and say hey, this is a good person, that's a good -- that's the right person, whatever.

JACK: Yes, I wouldn't spend too much on that. What I'm most concerned about, we'll find the right people. What I'm most concerned about is the expertise. Do you have the right expertise? Do you have the --

CHUCK: Jack, (inaudible) concerned about who comes over with the expertise and the skill sets, and the diplomacy. It's more you can't just say hey, we need a severe accident guy, and Joe is the best severe accident guy. There's a lot -- huge political element to this, so it's got to be somebody with

diplomacy skills.

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JACK: Okay. How about the size of your team? Do you have enough people to get done what you need to get done and start a rotation such that people get rest?

CHUCK: Yes. I had this grand scheme that we would run rest periods, but that all blew up. So, basically, the direction that I've given is, it's up to each individual to figure out their meeting schedule, and their sleep schedule and get rest. And it seems to be working out. We're still able to keep three people, or four people here during the night and get -- so rather than to try to manage them into a sleep schedule, I just said you know your rest needs, and your meeting schedule, do it, you know. And not try to manage rest periods for people.

JACK: Okay. So, what I hear you saying

is that you don't anticipate needing more people than what you have, that your skill sets seem to be the right skill sets, and you're particularly sensitive to the political and diplomacy aspects of each of the responsibilities. Did I pretty much capture it?

CHUCK: Yes. The best science person can't bring science to it if they don't have the right diplomacy skills.

JACK: I understand.

CHUCK: So, yes. You know all that.

JACK: I do. I do. Okay. Should we set up a periodic time that you and the ET can talk to make sure that we're connected?

CHUCK: I've been trying to call in every hour or when a significant meeting ends.

JACK: That sounds good, but it sounds a little onerous on you. Is that too much effort on your part?

CHUCK: No, not really. I mean, if I just call in and check in, or just to say we're still here. But it's 8:00 our time here now, or five to. I would -- maybe I'll start at two hours, maybe we can do two-hour increments.

JACK: Okay.

CHUCK: Unless something significant

happens. I know this morning everybody is going to meetings, so they probably won't -- it will be that the wave will come back in later on today, this morning with information.

JACK: Okay. Hey, let me ask you one other question before we let you get back to work. This is about two in the morning yesterday, which would have been, I don't know what time it was your time, but Trap was running off to a meeting, a government meeting in a different building. I believe he called it the Legislative Building, or something like that. It began with a C, like Cusco Building.

CHUCK: Yes, he was going to Conte meetings.

JACK: And those were, it sounded like the first very close relationship that we were having with the government, where they were bringing us in. Are those meetings happening, and are they continuing? And what's the focus of that?

CHUCK: Yes, those meetings started when we first got here. We've been -- since the day we got here we've been going to Conte meetings. It's just, basically, it's the Prime Minster level, but there's very little -- they are being briefed. They're not having -- there's not information coming out of there.

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The urgency is the Reactor Safety Team and your good work with the industry, and them to come up with recommendations about how to deal with these

spent fuel pools.

We're highly concerned, as everyone is, about the length of time that these pools have probably been dry, and what are the consequences of that. So, that's my big view of things.

I put people on these teams and they're out doing great work. So, what I need with the ET is the policy issues to help with the government issues.

JACK: Okay. And what are the highest priority things in that regard that you need from us?

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CHUCK: And, obviously, there are a hundred other meetings, but in terms of the big meetings that drive what we do, it's Conte and MOD. Conte is the Prime Minister's meetings, and MOD is the Ministry of Defense's meetings. So, those two meetings -- and there's a hundred other meetings, but those two meetings are the primary drivers of what we do.

JACK: Okay. Chuck, let me let you go.

You've got other things to do, so we'll hear from you in between one to two hours from now. Okay?

CHUCK: Yes. Thanks, guys.

JACK: Thanks a lot.

CHUCK: Yes.

(CONFERENCE CALL INITIATED)

MALE PARTICIPANT: Are we ready to go? They're not ready.

OPERATOR: There are currently 30 participants in your conference. The following people are in the conference.

(Participant identifications made.)

OPERATOR: Roster playback is complete.

JACK ROSE: Good evening. This is Jack Rose. There's a number of people here with me in the Executive Team room that are listening in to this.

There have been a number of developments today that I wanted to update you on. First, let me go through the condition of the plant. Unit 1 has core damage, fuel is being cooled but possibly not completely covered, containment is in tact. Unit 2 has core damage, cooling is getting to the fuel, but the fuel might be as much as a third uncovered, primary containment has some damage. Spent fuel pools on Unit 1 and 2, we don't have any indication that there's a problem there.

Unit 3 -- that doesn't mean there isn't a problem, we just don't have any indication that there is. Unit 3, the core is damaged, it's approximately half uncovered, is the best information we have.

Primary containment has some damage. The greatest concern right now is the Unit 3 spent fuel pool, and possibly the Unit 2 spent fuel pool. But Unit 3 spent fuel pool, there's observed, visually observed substantial plume which appears to be a steam plume continuing to emanate from the Unit 3 reactor building debris. It does not appear to be smoke, it appears to be water vapor, so it appears that the spent fuel is boiling the water in the spent fuel pool.

Unit 4, all the fuel is in the spent fuel pool. There was substantial damage, as you recall, to the reactor building. It appears that there was damage to fuel rods during the explosion. They attempted to dump water into the Unit 4 spent fuel pool from a helicopter. That was not successful. They're in the process, and we are supporting this process, of trying to identify a methodology to spray water into the spent fuel pool of Unit 4.

The radiation dose levels range approximately from 100 to 1,000 millirem per hour. That's 100 millirem per hour to 1R per hour at the site boundary. Closer into the plant it ranges depending on times that the measurements are taken from 30 to 300R per hour in the immediate vicinity of the facilities.

We have our first substantial amount of data from the Department of Energy flyovers, the aerial monitoring systems. Those aerial runs ran back and forth in a serpentine pattern within approximately a mile of the facility. That's the closest they came to the facility. And those runs show what we believe to be radioactive deposition to the west and south of the plant. The runs did not go into the areas where the plume would be, which is currently blowing out to sea. But they did show deposition on the range of 10 to 30 millirem per hour a meter above the soil.

There's a lot of calculations that go into that, because these are measurements that are being taken from an airplane, actually a helicopter, I guess. But they calculate what would be the dose rates a meter above the ground based on what they're measuring up in the air. And those dose rates range from 10 to 30 millirem per hour east and south of the plant, and then north of the plant the rates are on the order of 1 to a tenth, to a hundredth of a millirem per hour. So, substantially lower to the north.

We believe that this is ground deposition. It's substantial ground deposition from earlier in the

week's explosions and material becoming airborne at the time when the wind was blowing inland instead of out to sea.

The Department of Energy took the data that was generated from these aerial monitor surveys and did some analysis, and they indicate that based on the current depositions, the Protective Action Guidelines are not exceeded beyond five miles. So, within five miles, the Protective Action Guidelines based on these depositions are exceeded.

The guidance that the U.S. provided for evacuation is characterized by the Department of Energy as sufficient and conservative.

I believe the next aerial monitoring is supposed to be conducted sometime early in the morning, in the middle of the night, essentially, our time. So, that's the next runs of aerial monitoring. We should have more data early in the day tomorrow.

I wanted to provide a little bit of background on the basis for the dose assessments that were attached to the press release that was issued yesterday. There were two Rascal runs that were attached to the press release. Those Rascal runs were based on the best information that we had at the time. And they're not Rascal runs of what was actually

happening, but they're Rascal runs of what was two sets of reasonable things that could happen.

The first run was -- the source term was from one reactor with 100 percent core melt, and containment damage, unfiltered release, and the meteorological conditions that existed at that time.

The second run was a 33 percent core damage in one of the reactors with no containment structure, unfiltered release. And then 50 percent damage to one spent fuel pool, and 100 percent damage to a separate spent fuel pool. And, of course, reactor buildings have been destroyed for those two spent fuel pools, so there would be again an unfiltered release with no containment.

So, that was the basis for the two dose projections that were provided, and they showed exceedance of the Protective Action Guidelines that supported the recommendation that went out with the press release.

Our team is functioning well on site. It's closely connected both with the Japanese Government, as well as with the Ministry of Defense, the Japanese Ministry of Defense. We are in the process right now, we're having telephone calls multiple times a day led by our Reactor Safety Team

with a variety of experts in the United States developing approaches to deal with the spent fuel pools, which appear to either be dry or substantially overheating.

Those calls involve a number of government entities, as well as INPO, Bechtel, and GE-Hitachi. It's an integrated effort to develop strategies to deal with the situation in an attempt to get cooling water onto the fuel to establish a higher level of stability of the situation.

That information is being shared on a regular basis with our team in Japan, and they're interacting with the Japanese Government on that. We expect in the future to have a clear engineered plan on how to do this, and at that point equipment will start being moved into position to implement that plan.

What else should I have added, guys? At this point, I'd like to open it up to questions. Okay. Absent any questions, the next --

JACK: Jack?

JACK: Yes?

JACK: Jack, this is Jack (inaudible). Do we have any information on radiological health effects, such as radiation sickness, or fatalities due

to radiation dose?

JACK: There are no reported fatalities. The only thing that I can think of, and you all can help me around the room, is a day and a half ago I'd say, roughly a day and a half ago, we had a report of five workers that had received very high doses, and they were reported as lethal doses. We don't have numbers. Marty?

MARTY: I will acknowledge that I've seen on the news reports of workers that appear to be suffering from radiation sickness kind of effects. But we have not heard anything official on that. That's just being reported in the media.

JACK: Okay, thanks. (Inaudible) assessment from last, or from yesterday. Have we gone back and taken a look at the assumptions of what we were considering in terms of (inaudible), hypothetical worst case versus what we're seeing?

JACK: Okay. We have to be careful. We have not done yet a worst case analysis, and I'm not sure -- we're attempting right now to define how we would do such an analysis, and what we would offer as the worst case.

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And, to be quite honest, the information that we're able to get on the condition of the core, and the condition of the reactor coolant capability, the condition of containment is very, very limited. We get information through a number of sources, many of them open sources. We do not have an information path directly from the operators, very different than what we would experience here in the United States.

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JACK: Yes, it makes sense, except that (inaudible) talked about the fact that the assessment that was done was a hypothetical worst case. I mean, I think those are the words in it. I don't have it in front of me.

JACK: Yes, okay. Yes, it does say worst case analysis on a very bad. I would not consider that a worst case, to be quite honest with you, because it assumes only half of one of the spent fuel

pools melted, and one spent fuel pool is okay. So, I wouldn't -- I think we had to use our language carefully here, and we'll work that up so that the next (inaudible) that comes out in 6:00 in the morning is better.

JACK: Okay, thanks. And then the last -- my last question here is, on page 3 of the SITREP it says that dose rates are like 40 to 50 millirem per hour on site. That doesn't -- the statement in there is probably dated. You all might want to take a look at that, too. Thanks.

JACK: Okay. I'm trying to find that. You said page 3?

JACK: Yes, page 3.

JACK: Okay. Yes, thank you. Other questions from other Commissioner Assistants?

MIKE KRAVANICH: Jack, this is Mike Kravanich. Let me first say I appreciate the new format of this report putting in the unit numbers by core and containment status, and also including the pools, and doing the priorities. It's much clearer than what we've seen in the past. It's very helpful.

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JACK: Yes, Mike, I don't know that we've had anybody say that the fuel is covered with water. What I can tell you is there's clear evidence of a very significant hydrogen explosion. The only source of hydrogen that could feed that explosion is the spent fuel pool, so there must have been very, very high temperature zirconium interacting with water.

There is no visible vapors emanating from Unit 4 spent fuel pool area, which would be indicative of no water. It could also be indicative of a fully cooled core. That does not -- there is no source of cooling water going into the spent fuel pool, so to have a very significant hydrogen explosion, and then to think about the fuel being covered, those are kind of non sequitur concepts.

We do know that there were parts of debris, that the areas of debris around Unit 4 after the explosion which were contributing to very significantly high dose rates, and I understand that bulldozers were used to bulldoze that debris under some soil shielding, and the dose rates went down dramatically. That would be an indication that were

fragments of fuel since there's no other source of substantial radioactive material which would have been involved in that explosion.

So, there's indication of a very significant hydrogen explosion. I want to make sure that it's clear that we don't know this. We are just interpreting this from the visual evidence that we have, as well as the radiological measurements. There's evidence of a very significant hydrogen explosion. There's evidence of fuel or some very highly radioactive material outside of the building after that explosion. And there's no evidence of water vapor, which would tell us that the spent fuel pool is dry.

MIKE KRAVANICK: That flyover that was done today at the plant that seems to be airing on all the networks, the Japanese, I guess it's their flyover, I don't think our crafts got that close. But they were showing what looked like a point of reflection on water, on the top of water. And that's why the TEPPCO folks were saying that's -- based on that and some other factors that Unit 4 was not their priority.

So, would you -- if that's their position, or they believe that, you would disagree with their

priorities?

[redacted]

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MIKE KRAVANICK: Thanks.

JACK: That's two offices. Anybody else? Okay. I appreciate your time and attention, and the next briefing will be at 7:30 tomorrow morning. We moved that a little bit earlier because of another meeting that we have at 8:00. So, I appreciate it, and next time we'll be on at 7:30 tomorrow morning.

(Chorus of thank yous.)

(CONFERENCE CALL INITIATED)

MALE PARTICIPANT: Mr. Sherron, you on the bridge?

MR. SHERRON: Yes, I am.

MALE PARTICIPANT: All right, sir.

MARTY: Brian, it's Marty.

BRIAN: Hey, Marty.

MARTY: Hey, sorry to bother you, but there are a couple of things I wanted to catch up with.

BRIAN: Okay.

MARTY: How did your meeting go with DOE today?

BRIAN: I went fine. Mike just sent our a summary. Let me -- I'm on the --

MARTY: Okay. If there's an email summary, I can get to it.

BRIAN: Let me see if he has you on CC here or not. Yes, you're on CC for the summary.

MARTY: All right. Is there anything that's not in the summary that I should know?

BRIAN: The only other thing was that I promised Secretary Chu that I'd give him a copy of the -- I think it's NCRP or one of those groups put out a pie chart that shows where the average American gets

their radiation dose from.

MARTY: Yes, the NCRP 103 or 107, I can't remember where.

BRIAN: Yes, you know, you get 50 percent from medical testing, you know. And I mentioned we had that, he was -- like I said, I was met with blank stares, so I said fine, I'll have one of my staff shoot it down to you.

MARTY: Yes. I think Mary Jane is holding up a copy of that chart. Let me make sure I --

MALE PARTICIPANT: Yes, that's the latest on (inaudible).

MARTY: Okay. 10 CRP 160.

BRIAN: Yes.

MARTY: Get this organization right. Yes, we got it in front of us.

BRIAN: Okay. Well, that was the only thing that I forgot to mention to Mike, that I told Pete Lyons I'll send it down to you guys, because like I said, when I mentioned that we had used it at the NAS study, I was met with blank stares.

MARTY: Okay. Did you get a chance to talk to Pete about his interest in sending a team to Japan?

BRIAN: I tried to catch Pete, I didn't.

What I did is I caught John Kelly.

MARTY: John Kelly? I'm not sure I know John.

BRIAN: John works for Pete. He's the Deputy Assistant Secretary for Nuclear.

MARTY: Okay.

BRIAN: And I told him that we had received some indication that DOE wanted to have some staff go over to Japan and join the NRC team. He didn't -- he was not aware of any request for DOE folks to go over and join the NRC team. He said that they had a couple of people over there already.

MARTY: Right.

BRIAN: But I told him -- I just said look, I said, if you could talk with Pete, just tell him that Chuck Casto is right now kind of up to his ear balls in stuff, and had said that he would be very much appreciative if he didn't have to take on any staff at this time. And I said that if you could hold off, and maybe we could reconsider it down the road.

MARTY: Okay.

BRIAN: So, he said he would take that message. I can confirm it with him tomorrow.

MARTY: Yes, would you?

BRIAN: Yes.

MARTY: That would be great to follow-up. I think Chuck is really -- he's got a number of concerns he's dealing with, including having half a dozen loose canons on deck.

BRIAN: Right.

MARTY: I think that's the worst case. The best case would be if he had a half a dozen people that were working for him, for DOE, and that's --

BRIAN: Yes.

MARTY: And he's not even ready to take that on.

BRIAN: Yes, but I would -- like I said, I couldn't grab Pete at the end there, but I was able to grab John. And like I said, he was drawing a blank stare, and I guess unless it wasn't under his staff.

MARTY: All right. So, we'll track an action from here that you'll follow-up with DOE to get confirmation --

BRIAN: Right.

MARTY: -- that they're not intending to send a team of "reactor experts" to Japan at this time.

BRIAN: Right.

MARTY: And if they do come around to thinking that that's necessary, Brian, if you could

get John to agree that they would coordinate with us first.

BRIAN: Yes.

MARTY: Thanks.

BRIAN: I'll take care of that.

MARTY: Thanks a lot.

BRIAN: Okay.

MARTY: Have a good night.

BRIAN: Okay. Take care.

MARTY: You too, bye now.

BRIAN: Bye-bye.

(CONFERENCE CALL INITIATED)

MALE PARTICIPANT: Are you there, Mr. Casto?

CHUCK CASTO: Yes, I am.

MALE PARTICIPANT: We have Mr. Casto on the line.

CHUCK CASTO: Good evening, folks.

MALE PARTICIPANT: Hey, Chuck, we were beginning to think you didn't love us any more.

MALE PARTICIPANT: Yes, we hadn't heard from you in so long.

CHUCK CASTO: Sorry, I was with the Ambassador and he, you know --

MALE PARTICIPANT: Oh, you name dropper.

(Telephone operator breaks in.)

MALE PARTICIPANT: We're back, Chuck.

[redacted]

I guess the latest couple of things. Brook is typing up a matrix right now of status of

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spent fuel pools, and reactor vessels. I know we put out our status update, but we need -- I'm going to send you -- I'm going to ask her when she gets done, thank her very much for doing that, this matrix. And we need to update it at least once a day, and when conditions change. It, basically, provides a very brief summary table of the status of the reactors and the spent fuel pools.

MALE PARTICIPANT: Okay, fantastic. We were just talking about the need to have a uniform consistent status.

CHUCK CASTO: Yes. And we've got -- the Ambassador gave me the -- he gave me the matrix, what he wanted to see in it. So, what is here is what he wants. So, I don't really want to add to it, or subtract from it, so this is the way he wants to be briefed. So, we'll give you that template, and then we could have another version that has what we need o it, but this -- we've got to have the Ambassador's version.

MALE PARTICIPANT: Well, let us know what it is that you would want on it beyond what the Ambassador wants, because we're really right now struggling to try to nail down a format that matches -- we have to think about your needs first. There's a

lot of people that want all this information, but we need to be supportive of you and the team, so let us know what it is on this table that they're not getting that you need.

CHUCK CASTO: Okay, thank you. The second thing, probably the bigger development. You guys may be aware that the [redacted] But we're trying to get a meeting up, an international meeting to coordinate the international -- everybody wants to help, but it needs to be coordinated, and give each nation a mission. And we'll do that. And, hopefully, we can match up their interests and interests with the mission for that nation.

MALE PARTICIPANT: We want to make sure that we're not stepping on each other's toes, that roles and responsibilities are clear.

CHUCK CASTO: Right.

MALE PARTICIPANT: Chuck, are you trying to -- I'm worried that you're going to get completely overwhelmed with this.

CHUCK CASTO: Well, I have good international programs people. Actually, I have three people going to that meeting. I think it's three going to that meeting. We're hanging in there in terms of leveraging ourselves. I don't think about, but before the day is over with, I'll think about what additional resources we might need.

I am working -- everybody has been working, the people here are working hard. There's no doubt about that, Jack. They're full out. And, particularly during the day, as you might imagine, things get really busy. But we're surviving, and going well, I think, or quite well. But we'll expand as we need to. And I'm not opposed to expansion. It gets a little bit unwieldy and although we have got fairly good facilities here under the circumstances, we're -- we already have a couple of people that are with us, embedded with us, particularly from DOE that are here. It's not clear to me exactly what all their roles are, but they're not in the way. So, we're surviving, and I appreciate your interest in that.

And if you think that there's something that we're not accomplishing, that you think we could use some help, we're obviously receptive to that.

MALE PARTICIPANT: There isn't any area that we've identified so far, Chuck. You guys are doing a great job.

MALE PARTICIPANT: Yes, you really are. I'm just -- I sense that you're killing yourself, and by adding this international coordination --

CHUCK CASTO: Yes, that just came up less than an hour ago.

MALE PARTICIPANT: Okay.

[redacted]

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FEMALE PARTICIPANT: Yes, I'd like to see (inaudible) conversations.

CHUCK CASTO: Yes, Tier 2.

FEMALE PARTICIPANT: We know what we're aware (inaudible).

CHUCK CASTO: Right.

FEMALE PARTICIPANT: A person I can

communicate back and forth for them to (inaudible). If they're open to it, of course.

[redacted] 5

MALE PARTICIPANT: Okay.

CHUCK CASTO: So, they're going to make that call sometime. Then he also rogered the idea about the Chairman calling or visiting TEPPCO Washington, D.C. and talking with them about cooperation. I've talked to Margie, Brook and Kirk and I had a long conversation with Margie Doan on other strategies with regard to -- and I don't -- Marty, you and I haven't talked, and I don't think Jack and I have talked.

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[redacted]

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MARTY: Good. Now, help me understand in all of this where is NISA, and where is the military,

because when we left yesterday, your sense was there was a little bit of instability around who was on point for this.

[redacted]

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[redacted]

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MARTY: No, go ahead.

[redacted]

So, they're -- and here -- and I think Jack, God bless him, I think he's got to hear this stuff over and over again, but our strategy is let's look at all of our options for recovery, but one of the things I want with the options, each option has to have a measures of success, so that we know we're not making the conditions worse.

So, if we're doing water, we need to have some measure of success about what water, if that is helping or hurting. So, we've asked questions. Last night we asked questions to the Reactor Safety Team, what are the measures of success for water? Okay.

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You know we can get you [redacted], we can get dose, we can get -- you know, you tell us. And what does a Zirc fire look like in terms of the smoke or the glow of the flame, whatever it is. And we asked this last night.

We need to know what that measure of success on water is. And if you want to do some other option, I need to know what the measure of success is before we're going to do it, because we're not going to make conditions worse. First, do no harm. So, I don't want to try any strategy that doesn't have sound measures, or at least reasonably sound measures of success. Because the last thing we want to do is make the situation worse for the Japanese. We're going to won this thing, if we do.

MARTY: Yes.

[redacted]

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[redacted]

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So, water measures of success, if you all offer to us that that's your recommendation, then we need to know if that's your strategy for recovery, then we need to know what the measure of success is.

And I'll shut up again.

[redacted]

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MALE PARTICIPANT: Hey, Chuck?

CHUCK CASTO: Yes?

MALE PARTICIPANT: Do we have good information regarding dose rates at the facility?

CHUCK CASTO: Yes. And people -- there's 1R -- I don't want to give you numbers, but I know --

my guys are telling me that there's -- at the facility and the operations, there's fatal doses. I mean, in the control room, or wherever it's -- they're not going to be able to operate anything around that plant.

MALE PARTICIPANT: Well, that's interesting because the news, and this includes the TEPPCO folks today, and I don't know how old these reports are, they're showing a lot of optimism about restoration of power to the components in the facility.

CHUCK CASTO: And maybe they'll pull something off, a rabbit out of the hat, but we don't see the power restoration as a -- what are you going to do? You've a building that exploded. You think the spent fuel pool pumps and breakers, and all that stuff you can just turn the lights on?

[redacted]

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[redacted]

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CHUCK CASTO: Right. And then you've got a building that's had an explosion. I mean, look at the walls of that building. What's the likelihood of the stuff working?

Now, the power is great. We all love power, and the power might be able to help power some temporary equipment. That's great.

[redacted]

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MALE PARTICIPANT: Chuck, let me give you

a little bit of an update on what's going on here. And the reason I asked for the dose rates on site is the folks here are trying to figure out what kind of piece of equipment they need, and where they might be able to place it to get water into the spent fuel pools.

The first thing is that our staff here has concluded that water is the right answer, regardless of whether you've got a Zirc fire, a partially uncovered spent fuel, totally uncovered spent fuel. In any condition, lots of water is the right answer.

They're talking three fire tugs being pulled up to the -- in the ocean to the plant site, and dock there, and then abandoned. And those would be the pumpers that would take the suction out of the ocean, and put the water to the next stage. And it would eventually come to some sort of a device, whether it's a crane or something with an appropriate nozzle that would get water to where you want it to get to.

The difficulty is, from what I'm hearing you say, is how to get that equipment where it needs to go in a way that appropriately protects human life, but gets the equipment there such that it can function effectively.

CHUCK CASTO: Right. Now, whether that's -- you know, modulizing the construction and flying it on a helicopter, as much as you can modulize it, and flying it in and have people go in and bolt it up. That's the question. If you could get some kind of nozzle that goes into the spent fuel pool, out the side of the floor, down the wall of the building, and then has an elbow that goes toward the ocean, have that as a piece, and hang that off the building on a helicopter, and then bring in another piece and lay it down towards the ocean, another straight piece of pipe, and another, and another until you get out to the ocean. And then you've got to have some poor people run in there and bolt it up in a Humvee.

We suggested to them last night, yesterday that they get some Humvees and strap lead to the Humvees like they strap metal. And order the Humvee itself, I don't know much how shielding a Humvee gives. But put lead on a Humvee, because one of the things is they're getting all that dose in the transit time to the job to and from.

MALE PARTICIPANT: Right.

MALE PARTICIPANT: I was wondering, is there anywhere we have like dose rate maps on site, so that we --

CHUCK CASTO: I think we have that somewhere. Yes, I think we do. And it's bad, Jack, between units -- I remember some numbers between Units 2 and 3, the two buildings, it's 450 to 600R.

MALE PARTICIPANT: Okay. Yes, I saw that, too.

CHUCK CASTO: So, you're talking lethal doses here, or certainly --

MALE PARTICIPANT: Okay. Our Reactor Safety Team is working every four hours, a phone call with Bechtel, and others within the federal government and outside, continuing to work on the solution path. And that's clearly our number one priority. It's not coming together rapidly. And once it does, then the equipment has to be identified, and gotten to the right places.

But we're going to need to connect you with that as it develops. And I'll make sure that happens.

CHUCK CASTO: No problem.

MALE PARTICIPANT: Is there anything else that we can do for you?

CHUCK CASTO: OH, God, you guys are doing so much. No, I don't -- we had a team meeting a while ago, and they were really -- I mean, it's a wonderful

team, and they had really no major needs of information, or equipment, or tools.

[redacted]

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And then what I need from you guys technically that I know of, now I don't know what all the team is asking you for, because I can't keep up with all what they're doing, but from what I know is, the solution path that you talked about, Jack, and the measures of success for those solution paths. And the equipment status.

I'm going to send you -- I don't know if you know what the status is of the equipment. In other words, has the equipment left Perch, Australia? Do you know?

MALE PARTICIPANT: I don't know.

CHUCK CASTO: Okay. I need to know that. And Tim probably knows it, but Tim is out doing real work.

MALE PARTICIPANT: Tim is (inaudible).

CHUCK CASTO: Okay. Maybe I can find Tim.

MALE PARTICIPANT: What you're talking about is Bechtel's equipment that was identified that was in Australia.

[redacted]

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I don't know, but that's my belief.

MALE PARTICIPANT: Yes. I think you're (inaudible) there.

[redacted]

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[redacted]

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And Brook, and Kirk, and Tony, and the embassy staff here is helping us weave through this. And I'll say that you -- we also have to -- I don't --

[redacted]

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MALE PARTICIPANT: Right.

CHUCK CASTO: So, we have to do something and watch that feedback and see how that plays. And then you say okay, well, that didn't work, so I've got to alter that strategy and do something else, because

the feedback tells me that that strategy didn't work. It's just like the strategy on the spent fuel pool. So, you're working multi, multi, multidimensional issues here.

MALE PARTICIPANT: Right. It's very complex. I understand. But I also understand your feedback, that makes good sense.

CHUCK CASTO: And we're harvesting that.

MALE PARTICIPANT: Good.

MALE PARTICIPANT: Did you get what you needed from INPO? When we last talked, you were looking for a severe accident management strategy expert.

CHUCK CASTO: You know, honestly, Marty, I think we should bring INPO in. I think it's good to have the industry here with us,

[redacted]

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[redacted]

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So, whatever protocols we have to put in place, we'll do. Just tell us what those are. But, basically, when I heard that, I just said okay, no.

MALE PARTICIPANT: Let us follow-up on that. That's the first we're hearing of that.

MS. YULE: Marty, this is Jennifer Yule. Hey, we were -- Brian and I were talking about the concept of just indicating that we do have quite a bit of severe accident specialty internal to NRC already. And if INPO doesn't -- I mean, I'm not -- we weren't

sure why the INPO option was going to be used rather than just our own staff. But now, especially if we're not getting -- not being able to make that INPO connection happen.

MARTY: Right. Jennifer, this is Marty. I mean, the issues were multifaceted, including getting INPO involved in this, because there's some intangible benefits there.

MS. YULE: Okay.

MARTY: And the other piece was that the research folks do have probably a very good handle on accident progression. But what I heard Chuck looking for was somebody that understood the implementation of strategies in the field.

MS. YULE: Yes. And I just want to add, because of the SOARCA work that we were doing especially with, obviously, the Peach Bottom plant, which is Mark I, we've gone through the SAMGs with Peach Bottom in great detail. So, there is the actual hands-on experience.

CHUCK CASTO: Yes, I guess my thought on this -- this is Casto. My thought on this is, we just need a conduit -- we don't need it, okay? It would be helpful, it's not a need, it would be helpful to have a conduit for the U.S. industry. They could bring all

the U.S. industry knowledge together and be that conduit. And whether that is in the -- you guys are having frequent phone calls with them, having them in the WHO. If we think that it would be helpful to come over here, I'm okay with any of that. I mean, that issue is not something that's on my radar screen as that's going to get water in the pools. That's not a critical path item.

MALE PARTICIPANT: Right, right. Chuck, I understood what we were doing. And I hope Jennifer can appreciate the multifaceted aspects around this.

MS. YULE: Yes, yes. No, I understand. Yes, I was just -- I heard that you needed severe accident expertise, and all I was indicating was that it's possible, we have it, if that's what you were looking for.

MALE PARTICIPANT: We have a rationale for getting INPO involved in this.

MS. YULE: Yes, yes, and I understand that. That's fine.

MALE PARTICIPANT: RST reached out to research, we have worked with your folks, Jennifer, and we're sending some info to --

MS. YULES: Okay. Yes, I was just offering the help if you were looking for severe accident.

That's all.

CHUCK CASTO: The other thing I asked for last night, and if you all would just -- I'm going to circle back on this in a second. We asked about the research on B5B on air oxidation in a BWR. I didn't get any feedback. I don't know if that was -- the research -- research we had given two tasks yesterday. One was tell us what water on a Zirc fire -- tell us a couple of things about a Zirc fire. What does water do? What does it look like so we can tell success? And how do we put it out if we start one?

MS. YULE: Okay.

CHUCK CASTO: So, those were the two questions we asked for research. In addition, research has B5B air oxidation in a BWR research --

MS. YULE: Yes, we got the data. Yes.

CHUCK CASTO: Okay. And we asked for you all to look at that, and if there are any insights, feed that to the whole team, the whole NRC team and us.

MS. YULE: Yes.

CHUCK CASTO: And, Marty and Jack, what I'm thinking is, I need to make sure -- we had the same issue here. I think we need to devise a list of top priorities, sort of like action items, so that we

know that the things are on the plate. You know what I mean?

MALE PARTICIPANT: Absolutely.

MALE PARTICIPANT: Yes, we're keeping track of the action items here on a list that's highly visible to us, but I think --

CHUCK CASTO: We don't have that, so we don't know -- we're not getting that feedback loop to know what you're -- because, honestly, there's been some turnover -- things dropped on turnover. And I'm just being frank with you, because I don't have time to

be --

MALE PARTICIPANT: No, no, no, I believe that to be true. So what you've just given us in an action item to get that list to you.

CHUCK CASTO: Right.

MALE PARTICIPANT: And then we need to maybe even put a column on there, I'm looking from here, on priorities. Are we color coding, or --

FEMALE PARTICIPANT: Priorities is internalized in the --

MALE PARTICIPANT: Okay. So, we need to make sure that you can see what we're tracking as priorities. If they're not your priorities, we need

to adjust that list. So, that's an action for us.

CHUCK CASTO: Exactly. And we're growing and all this. I mean, we're all out here in something that we've never done before, and we're growing on this. I'm not being critical, I'm just saying we're growing, we're learning, we're establishing infrastructure and we're winding up, we're going through the learning curve, and we're going to be okay.

MALE PARTICIPANT: Hey, Chuck, when you talked air oxidation, what were you talking about? Air oxidation of what?

CHUCK CASTO: The fuel and the zirc -- zirc oxidation, I believe, was the --

FEMALE PARTICIPANT: Yes, it is zirconium oxidation that gets to the Zirc fire under air cooled conditions. And we had run this test at Sandia, so we have good numbers on the time it takes to get there, and the kilowatt per foot rating that you need to get there.

CHUCK CASTO: Yes. My understanding is there was actually research, and they actually did this. This isn't just --

FEMALE PARTICIPANT: Yes, yes. No, no, no. We ran tests at Sandia, and burned the hell out

of a BWR bundle, or two, or five actually because it propagated.

MALE PARTICIPANT: Hey, Chuck, what specifically do you need on that that would be helpful to you in working these strategies?

CHUCK CASTO: We need the insights, and we need it to inform our strategies.

FEMALE PARTICIPANT: But I think what he's asking, do you need the kilowatt per foot rating that you need to have before you get zirc fire?

CHUCK CASTO: No, that -- you might be able to give that to our staff out here or something. That might be fine, but that's not helpful for me. I just need -- I need you to get that information, whatever the insights are to the Reactor Safety Team, and Tim and those guys that are doing the -- well, wonderful job all of them, the Reactor Safety Team and Tim, on the options and strategies for the water option.

MALE PARTICIPANT: Hey, Chuck?

CHUCK CASTO: Yes?

MALE PARTICIPANT: We've worked that this afternoon with research staff, and the answer to all of these questions are put water on it in large quantities.

CHUCK CASTO: Yes, I got that, Jack, but I've got to know --

MALE PARTICIPANT: Chuck, specifically relative to the Zirc fire, we had the fire folks [redacted] If you're going to see a Zirc fire, you're going to see a very energetic emanation that's not going to dissipate in the space of what we've been seeing out of Unit 3.

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MALE PARTICIPANT: And the characterization of that would be very different. It would look very different, and it wouldn't dissipate so rapidly. So, the assessment is that that's water vapor.

MALE PARTICIPANT: The other thing that he said, Chuck, is when you start putting -- if you get that Zirc reaction, and you start putting water on it, at first you're going to get a very violent reaction that's going to cause you to secondguess what you're doing, but you need to keep putting lots of water on it.

MALE PARTICIPANT: Yes. The bottom line

is, once you start don't stop, and put as much water on it as you can.

CHUCK CASTO: Okay. I buy all that, and that's great. But I need measures of success of that.

MALE PARTICIPANT: The measures of success can be [redacted], it can be --

CHUCK CASTO: Right, Jack, but I need specific measures of success. [redacted] Jack, I can't make this worse. I can't, so I need -- I've got to have -- before I put a solution in, I've got to know how a measure in detail with the image people. I've got to know -- we don't want to -- right now it's a stable environment that's not releasing massive amount of radiation. If I put in a -- if we put in a solution and we release -- yes, it may get water in the pool, and it may eventually flood it, but if we send out a massive amount of plume, we need to know that before we do it. Okay? So, then we can do dose calculations or do whatever and say okay, we're about to cause a big plume here. We know it, and we've taken enough protective actions to do it.

We have a stable environment right now. We

don't want to unnecessarily disrupt it, and do something wrong. That's my -- so I need to know precisely. I can conceptually think about those things, but I need to know precisely what the zirconium fire look like, how do I put it out? If I do harm, I need to know how to back out of that harm.

MALE PARTICIPANT: Chuck?

CHUCK CASTO: Yes?

MALE PARTICIPANT: First off, I don't think we have a stable situation. We have a situation that's slowly degrading.

CHUCK CASTO: You're right, Jack. You're right. But it's not -- it's stable enough that I -- I'm not interested in making it worse.

MALE PARTICIPANT: Well, and I understand what you're asking for, and we will get you something. I don't know that it's going to meet the kind of precision that you've just articulated.

CHUCK CASTO: [redacted]

[redacted]

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MALE PARTICIPANT: Yes, I understand.

CHUCK CASTO: And I need to know DOE on dose people, what can we -- what isotopes can we expect, and what quantities if we started a Zirc fire. What is the color if I do just [redacted] What does it look like?

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Jack, it's stable enough that I don't want to put in a solution that makes matters worse.

MALE PARTICIPANT: We understand. And we -- I think your insights here and your direction is very good. And we can get some people working on this, and develop some projected measures of what it will look like, and how to measure it. And it'll tell you whether or not things are happening in the way they think they are supposed to be happening.

CHUCK CASTO: Yes, we've had people here that throw solutions at problems. And I want to -- I need an informed solution.

MALE PARTICIPANT: Yes, got it. I understand. That's good direction. And I understand it, and we'll make it happen.

CHUCK CASTO: I have a Colonel standing here over my shoulder in fatigues, and that makes me nervous when these military guys come in here and stand over my shoulder. Fortunately, he's not armed

that I can tell.

MALE PARTICIPANT: Okay. Then you're okay.

CHUCK CASTO: So, you're going to get the action item list to us? I'm getting the list that the Ambassador needs, and we're good. Right? Everybody healthy and good?

MALE PARTICIPANT: Yes.

MALE PARTICIPANT: Jennifer.

MALE PARTICIPANT: Jennifer, thank you. I was having a brain fart here. Jennifer, could you stay on for a minute?

MS. YULE: Yes.

MALE PARTICIPANT: Okay, thanks.

MALE PARTICIPANT: Hey, Chuck, one final thought. And I know that this is not a high priority for you, but I know it would be running through my mind if I were in your shoes. Have you seen any gaps in NRC's programs or things that we need to be addressing in the near term. I'm not talking about long-term lessons learned reports, but is there anything that jumps to your mind that you see as a gap, a safety gap?

CHUCK CASTO: No, I don't think so. I think with B5B, we're in good shape with B5B. I think

B5B will probably need to be rethought a little bit in terms of the insights here about where we store equipment, and those kind of things, don't store it on site, don't -- there's going to be those kinds. And then there's going to be lots of lessons learned on SAMGs. You can see all that, but it's nothing that is urgent.

I know there's going to be questions in the United States about Mark I containments in the 23 BWRs and the Mark I containments, but I think we have to take the position that we're safe. We were safe yesterday, we're safe today, and we're going to be safer tomorrow based on what we've learned.

MALE PARTICIPANT: This is good. I mean, the President is calling for an assessment of the safety of nuclear power in this country. And I'm not exactly sure what that means yet, but I think we have an opportunity to shape it. And I would jump in and shape it in roughly the same direction you're pointing, so this is good.

MALE PARTICIPANT: Okay, Chuck, thanks.

CHUCK CASTO: Okay, guys. Hey, thank you. It's invaluable what you all are doing in supporting us.

The other thing I need is, Marty, if you

guys want to send me that list of people for relief, let me take a look at that.

MARTY: Yes, we're working on it.

CHUCK CASTO: Okay. When it's ready, send it to us. My strategy, I think Jack suggested, or I talked about, I would suggest, and I talked to the team here, that people look at that list and say based on what they know the environment is here, the political aspects, the technical aspects, that they may each individual member look at that list and maybe give me two or three recommendations of who they think would be a good -- because people know who is like-minded to them, and has certain personalities, and all that. And they know what the mission is going to be.

One of our key issues with that relief team is what will the mission be when they get here? So, we've got to think about the mission, we've got to think about, as Jack and I talked about, they may be the best technical minds in the world, but the soft side of this is enormous. So, a really good technical person that's not a people person, and doesn't understand the politics involved in this, it will fail.

MALE PARTICIPANT: Got it. All right, we got it.

CHUCK CASTO: Okay, thank you, guys. Thank you.

MALE PARTICIPANT: Thanks, Chuck. Check in again any time you want.

CHUCK CASTO: Okay. Probably in an hour, hour and a half, two hours, something like that. But I don't know, I'm on standby with the Ambassador. He's got a lot of -- when they need a pretty face, you know who they come to get. That's just the way it is, you know. It's a burden I carry, but I'm used to it by now. So, I just have to be the pretty face and that's it. I don't know anything, but I'm just a pretty face.

MALE PARTICIPANT: Well, that's great.

MALE PARTICIPANT: Keep your sense of humor, buddy.

CHUCK CASTO: All right. Talk to you soon.

MALE PARTICIPANT: Okay.

MALE PARTICIPANT: Okay, I think Chuck's approach here is really spot on. Jennifer, are you still on?

MS. YULE: Yes.

MALE PARTICIPANT: Yes, good. The -- when he started mentioning the B5B, and air oxidation of fuel and everything, what I didn't understand is what he was trying to get at. And his approach, I think,

is spot on.

We concluded that water is the right answer. What we really need to do is get the people that understand how fuel is going to behave both from a physical standpoint, as well as from a radiological standpoint to get them specific ways to tell whether they're making progress, or whether they're degrading the situation.

MS. YULE: And can I ask a question there about insuring that water is the right option?

MALE PARTICIPANT: Yes.

MS. YULE: Do we have details about the packing of the spent fuel pool?

MALE PARTICIPANT: Well, what do you mean packing? Oh, you mean the distribution, the fuel in the pool?

MS. YULE: Well, if there are hot assemblies next to each other, because there takes a certain kilowatt per foot, and a certain packing to actually cause a Zirc fire. So, it can actually -- the fuel can heat up, but in a lot of scenarios it won't catch fire. So, what Chuck is saying is, in fact, true, that if it's just heating up and it's just steaming off the last of the water, so what? It could eventually just be air cooled. Whereas, if you dump a

lot of water on it, you're going to generate hydrogen and you lead to an explosion. You know, hydrogen detonation.

So, part of this idea of throwing water on it, I would say yes, provided we know that it's going to get to a Zirc fire.

MALE PARTICIPANT: Yes. Jennifer, what we did is was we involved your staff in a fairly protracted conversation this afternoon to look at the different scenarios. And the answer to your question is, we don't know how their assemblies have been placed into the pool. And, quite frankly, we don't even know if the assemblies are where they were placed.

MS. YULE: Okay. But I heard that they were out of the core for 100 days.

MALE PARTICIPANT: Well, Unit 4 was out for 105 days, but the one we're really looking at is Unit 3. Unit 4, their hydrogen detonation occurred in the pool.

MS. YULE: Yes.

MALE PARTICIPANT: And they have much greater structural damage around the sides of the pool, from everything we can tell. And if you had a subsequent detonation there, there's not much there to

contain that wave. But as far as we know, the detonation that occurred in Unit 3 was above the refueling floor. The walls are still, we think, reasonably in tact. But there was a concern of what a further detonation might do.

MS. YULE: Yes, I would worry if further hydrogen explosion based on the -- causing disruption of fuel, as well as losing integrity of the pool. So, making --

MALE PARTICIPANT: Unit 4 we're thinking is pretty well disrupted.

MS. YULE: All right. But --

MALE PARTICIPANT: The path forward here, I think, needs to be, we've got a belief, a strong belief and some alignment both within the agency, and outside the agency, that putting water on the spent fuel pool is the right thing to do.

MS. YULE: Well, can I just ask that some --

MALE PARTICIPANT: Let him finish. Okay?

MALE PARTICIPANT: Jennifer, let me finish. Cappell and Fettis are producing a White Paper that is capturing the basis for that decision, and that's going to be shared with everybody tomorrow morning. And then there's going to be a call, and I

can't remember when you said it was going to be, Fred.

MALE PARTICIPANT: We have an email out to INPO, and (inaudible) and support a call on this topic tomorrow morning.

MALE PARTICIPANT: Okay, sometime tomorrow morning with the industry folks, as well as the government folks to get alignment, and see if there is alignment that this is the right answer. So, we're bringing the best minds from research, and NRR, and Naval Reactors, and the industry, and the laboratories to -- we're bringing as much as we can together to get a final position on this approach.

I think the other piece that Fred was looking at was how does he tell whether we're making progress? And I think that's a really good point. And I'm assuming that it's going to involve some sort of [redacted] What should we be looking at, and what should it look like? And what would be indicators of things looking badly?

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And I think we just need to get the right really smart people answering that question, so that when we give them the strategy, we give them how to

measure success. I think he's right on point with that. Does that make sense?

MALE PARTICIPANT: It does. It's more complicated than it sounds, though, because what you expect to see is a function of what is in the pool when you put water in it.

MALE PARTICIPANT: Right.

MALE PARTICIPANT: And we don't know.

MALE PARTICIPANT: And it's going to have to be real time. It's not going to be a go/no-go. It's going to have to be look at what happened, and continue looking at what happened, and make judgments. I don't think there's going to be acceptance criteria, you know, go/no-go acceptance criteria. But I think we need to know -- we need to have the smartest people we can tell us what we should be looking at. Should we simply [redacted] Look for those to go down, or should we be looking for certain radiological constituents? 5

MALE PARTICIPANT: And you (inaudible) your feedback because you're -- unless you've got some [redacted] that you're bringing to the site. 5

MALE PARTICIPANT: Yes.

MALE PARTICIPANT: [redacted] don't -- they're not continuous coverage.

MALE PARTICIPANT: You might have a feedback loop that's (inaudible).

MALE PARTICIPANT: Right.

MALE PARTICIPANT: And you can tell the stress level that Chuck is under. He's a pretty --

MALE PARTICIPANT: A continuous feed, how we get that to the people over there.

MALE PARTICIPANT: Right.

MALE PARTICIPANT: You can tell the stress level that Chuck is under just by the fact that he considers the situation right now stable. You know, there's nothing stable about this situation. And the only way to get stable is to get long-term cooling of the fuel in each of the places where it exists, in the reactor vessels, in the spent fuel pools. That's the only way to get stability here.

MALE PARTICIPANT: Yes.

MALE PARTICIPANT: I will say compared to what we were doing for a couple of nights here, this is progress.

MALE PARTICIPANT: This is stable.

MALE PARTICIPANT: Yes, that's right.

MALE PARTICIPANT: And if you have a fuel configuration in 3 and 4 that is not going to -- it can steam completely off, and it's not going to go to

a Zirc fire, and if you have stable cooling to cores 1, 2, and 3 --

(Simultaneous speech.)

MALE PARTICIPANT: Those are big ifs.

MALE PARTICIPANT: The fact of the matter is we don't know any of that.

MALE PARTICIPANT: We don't know any of that, I agree.

MALE PARTICIPANT: Yes.

MALE PARTICIPANT: So, we've got to operate on the assumption that it's not. At the same time, I understand where he's coming from, if throwing water into there is going to create the next hydrogen explosion and take this thing down a whole new path, then I don't want to be the one making that happen.

MS. YULE: Yes, and that was really the crux of my question, was what do we know about the spent fuel pools. I would -- so they don't have any documentation that they've provided, the regulator doesn't have it either?

MALE PARTICIPANT: [redacted]

[redacted]

MS. YULE: All right. Yes. Because, again, that is a strategy, just let it burn, let it

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boil off and just sit there. And we have an appropriate technical basis to recommend that if the packing isn't that strong.

MALE PARTICIPANT: Jennifer, I don't know that we've gone to TEPPCO and asked them what kind of information are you looking for? How is the fuel racked? I mean, if that's makes a difference, we ought to go to TEPPCO and say this is the information we want.

MS. YULE: Yes, it would be how it's racked, and the age of the fuel. And then we could tell you whether or not it would get to a Zirc fire.

MALE PARTICIPANT: How much difference does that make?

MALE PARTICIPANT: I think of difference for the studies that have been done, if you have the hottest fuel together, it makes -- 180 days old, you may still be able to do a Zirc fire. If you do it in a matrix the way the U.S. plant is doing it, you get that status to 20 days after offload. So, you've got 105 days after offload and you've got the fuel dispersed, you might not be able -- you might have an air cool --

(Simultaneous speech.)

MALE PARTICIPANT: You don't know what the

geometry is in each core.

MALE PARTICIPANT: Let me ask the action question. Let's say that TEPPCO comes back and say the hottest fuel was segregated in some way, whatever way they do it, that they left spaces or something. Why would we believe that that's still the condition of the spent fuel? There was spent fuel on the ground outside of Unit 4, pieces of spent fuel. But why would we believe that the spent fuel pool is in any configuration similar to what it was before?

I just don't understand how we would take action based on that information. It might be good information to have, but I don't think it's dispositive.

MS. YULE: But Unit 3 had -- I didn't realize Unit 3 had undergone major disruption in the spent fuel pool.

MALE PARTICIPANT: We don't know. Unit 3's explosion seemed to be at a little bit higher elevation, and more energetic. Unit 4's explosion seemed to be a little bit lower elevation, and there's more of the roof structure still in place. But we don't know what that means.

MALE PARTICIPANT: What's left of the concrete wall structures.

MALE PARTICIPANT: That's right. And they, apparently, have pieces of debris that they were able to bulldoze dirt over, and dramatically decrease the dose rate around the building. So, I don't know how you can conclude that that's anything other than fragments of spent fuel.

MS. YULE: Yes. I mean if that's the case, then all bets are off, and you've just got to throw water on it, and hope you don't get a major steam explosion and cause further disruptions.

MALE PARTICIPANT: And that's basically what (inaudible) came up with and your staff.

MALE PARTICIPANT: Yes. And the other thing we're not talking about is don't we have to shield the fuel in Unit 4 so we can get to 1, 2, and 3 where we have cores that we don't know if they're being cooled?

MALE PARTICIPANT: Yes. What you're saying is don't we need the water --

MALE PARTICIPANT: We can use the water for shield --

MALE PARTICIPANT: Yes. We don't even know if Unit 4 can hold water.

MALE PARTICIPANT: That's what I'm saying.

MALE PARTICIPANT: Will that hold water?

We don't know. But, certainly, putting water on it --

MALE PARTICIPANT: (Inaudible) that it wouldn't.

MALE PARTICIPANT: Yes, for some period of time we've been saying we don't have any confidence in the integrity of the Unit 4 pool.

MALE PARTICIPANT: Well, I think we said that we think it's dry. And we didn't know why it wasn't wet. We don't know. But if you (inaudible) and you let the water decay (inaudible). How does that happen?

MALE PARTICIPANT: Yes. And that was -- two days ago we were getting from the embassy that they were getting from NISA and Tokyo and TEPPCO, that they had no confidence in the integrity of the Unit 4 walls. And that was the basis for why we said it was (inaudible).

Now, on the other hand, I'm still getting pictures of Unit 4 that's some kind of water vapor around that's coming from --

(Simultaneous speech.)

MALE PARTICIPANT: So, maybe it can hold some water. I don't know. The Japanese have been adamant that they think there's water in there.

MALE PARTICIPANT: Yes, we've got about a

half an hour before shift change. I thought it would be a good time to go back over what we've accomplished, and what our priorities are.

FEMALE PARTICIPANT: The question about Bechtel, where are we going to get the status of the equipment from Bechtel? Does anybody --

MALE PARTICIPANT: Hey, Fred --

FEMALE PARTICIPANT: That's main thing Chuck said he needed more than anything. Maybe we can try to find out that.

(Simultaneous speech.)

FEMALE PARTICIPANT: Status of Bechtel's equipment, like out of Australia and stuff?

FEMALE PARTICIPANT: Chuck said he's needs to know that. Do we have that information?

MALE PARTICIPANT: We're waiting on Chuck to talk to DART to have it shipped, but it's not ready to ship (inaudible).

FEMALE PARTICIPANT: Okay.

MALE PARTICIPANT: That's okay. Chuck thought there were actions being taken to get it --

MALE PARTICIPANT: His question was has it from Perth.

MALE PARTICIPANT: Yes, so that he needs to be doing something that could make that happen.

MALE PARTICIPANT: (Inaudible) Dart.

MALE PARTICIPANT: Have you authorization de facto to ship the equipment. As of one hour ago, Bechtel was still working (inaudible).

MALE PARTICIPANT: Yes, moving the equipment (inaudible).

MALE PARTICIPANT: I think they're changing something.

MALE PARTICIPANT: Changes like that.

MALE PARTICIPANT: (Inaudible).

MALE PARTICIPANT: Yes, they ship different equipment from different locations.

(Simultaneous speech.)

MALE PARTICIPANT: You know, if we're going to pay for it --

OPERATOR: Jennifer Yule is on the phone.

MALE PARTICIPANT: Okay. Jennifer, did you--

MS. YULE: Yes, I fell off. But I think our conversation is over. Right?

MALE PARTICIPANT: Yes, I was just going to say, I don't think you need to sit on this. We're back to a work mode now.

MS. YULE: Okay, yes. So, I'll just make sure tomorrow that research is given everything that

you guys were looking for that Chuck asked about.

MALE PARTICIPANT: All right. Thanks, Jennifer.

MALE PARTICIPANT: But let me understand.

MS. YULE: All right, see you.

MALE PARTICIPANT: We're waiting for DART to give --

(CONFERENCE CALL INITIATED)

MALE PARTICIPANT: Hey, David?

DAVE HARMON: Dave Harmon on the bridge.

MALE PARTICIPANT: Okay.

DAVE HARMON: Hi, Marty.

MALE PARTICIPANT: Dave, how are you?

DAVE HARMON: Doing well, thank you. Hey, I wanted to follow-up on our previous conversation with, hopefully, some useful information source for you.

MALE PARTICIPANT: Good.

DAVE HARMON: When I was up there, your team told me that you have SIPRNET access.

MALE PARTICIPANT: Yes, we do.

DAVE HARMON: Okay. There is information available [redacted] that I understand is not compartmentalized to the point where you cannot -- so that you could be able to see it. And since this is an unclear line, I'm going to tell you that it has the kind of data you were looking for without telling you what kind of data that is.

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MALE PARTICIPANT: I could almost guess.

DAVE HARMON: Okay.

MALE PARTICIPANT: Okay.

DAVE HARMON: All right. The --

MALE PARTICIPANT: Is there something I should -- how do I access that?

[redacted]

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MALE PARTICIPANT: Okay.

DAVE HARMON: Now, the NREOC has been looking at some of the data here, and there is some historic data, as well as current data. So, it will show you a little bit of what you're looking for-- you were talking to me about before in terms of before and after, or changing with time kind of stuff.

MALE PARTICIPANT: Yes.

DAVE HARMON: So, again, very useful

information that I picked up when I came here to the NRECC.

MALE PARTICIPANT: Excellent. Thank you for the tip.

DAVE HARMON: The fellow I'm looking at here is on the phone line with some folks trying to figure out how to navigate it, because we have some printouts from it, and they were generated from somebody else. So, we are having a little bit of problem with that now. So, I decided to call you with this information so you could start to get set up to go look at this. But we might be able to push some additional information to you through Mr. Bell in terms of how to navigate the page.

MALE PARTICIPANT: Great, thanks.

DAVE HARMON: All right.

MALE PARTICIPANT: Now, are you working with Tom Roberts?

DAVE HARMON: I have been, yes. He's not here right now.

MALE PARTICIPANT: Okay. Because he put in a call to me earlier today. I'm just going through my email.

DAVE HARMON: Okay.

MALE PARTICIPANT: This would have been

somewhere around 4:00 this afternoon.

DAVE HARMON: I did talk with Tom in that time frame.

MALE PARTICIPANT: Okay. I don't know that it's worth waking him, since he had a call in to me.

DAVE HARMON: The --

MALE PARTICIPANT: Is there a way to leave a message there for him that I can be reached from 7:00 to 7:00 here in our Ops Center?

DAVE HARMON: 7 p.m. to 7 a.m.?

MALE PARTICIPANT: 7 a.m.

DAVE HARMON: All right. I will leave him that message.

MALE PARTICIPANT: All right.

DAVE HARMON: All right.

MALE PARTICIPANT: Thanks again for this tip.

DAVE HARMON: You're welcome. Again, it's interesting. It -- I'm trying to -- again, the types of stuff we were talking about is represented on some of the information there.

MALE PARTICIPANT: Okay. As soon as my folks that have access to that room, where that equipment is kept, we'll get on it.

DAVE HARMON: All right. Appreciate that,

and we'll push some more information in terms of how to navigate here, and hopefully get you set up.

MALE PARTICIPANT: All right. Thanks, Dave.

DAVE HARMON: Thank you, Marty.

MALE PARTICIPANT: All right. Have a good night.

DAVE HARMON: You, too.

MALE PARTICIPANT: Bye now.

DAVE HARMON: Bye-bye.

[redacted]

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MALE PARTICIPANT: I'm going to try it here.

MALE PARTICIPANT: Okay.

MALE PARTICIPANT: If I can't get it here, then I'll take it back (inaudible).

MALE PARTICIPANT: Okay.

[redacted]

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MALE PARTICIPANT: Oh. Well, he was just trying to log on here. He has a terminal in the --

MALE PARTICIPANT: Yes.

MALE PARTICIPANT: Oh, great.

MALE PARTICIPANT: I guess he's got to get more directions.

MALE PARTICIPANT: Point to point.

MALE PARTICIPANT: Generally (inaudible) your browser.

MALE PARTICIPANT: Yes, I would think. How are you doing?

MALE PARTICIPANT: I'm trying to get -- there should be nobody on.

(Background conversations.)

MALE PARTICIPANT: It says push down.

MALE PARTICIPANT: All right.

MALE PARTICIPANT: All the conditions stay the same.

(CONFERENCE CALL INITIATED)

OPERATOR: Mr. Casto is on the ET bridge.

MALE PARTICIPANT: Hi, guys.

MALE PARTICIPANT: Hey, Chuck, I'm going to have to walk over there it looks like and tell them. They're not monitoring it.

CHUCK CASTO: Okay.

(Background conversations.)

CHUCK CASTO: They're very diplomatic, Damon. I'm reading your email there.

MALE PARTICIPANT: Very unusual to be --

CHUCK CASTO: (Laughing.)

MALE PARTICIPANT: I felt like (inaudible). I'm not known for (inaudible).

CHUCK CASTO: (Laughing.) Oh, Joe. Joe is the man, let me tell you. Joe is from Atlanta. Joe can do anything.

(Simultaneous speech.)

CHUCK CASTO: Joe is the man. He's from Atlanta. And he and I have a mutual buddy. Joe can make --

(Background conversations.)

CHUCK CASTO: What's your last name, Joe?

JOE HUBERT: Hubert.

CHUCK CASTO: Hubert. When I want to see

John, I want to make sure I tell him who has (inaudible).

(Background conversations.)

MALE PARTICIPANT: Do you want to hear any more about the spent fuel pool, and they recognize the dire position they're in. And do they need more information or not? Do we have any more information, analysis? Can we help with [redacted]

[redacted]

CHUCK CASTO: I think with a [redacted]

[redacted]

MALE PARTICIPANT: Yes, we'll do that whenever we can.

CHUCK CASTO: Right. He's our [redacted] expert.

MALE PARTICIPANT: I don't know about that.

(Simultaneous speech).

MALE PARTICIPANT: He's got the [redacted] [redacted] whatever?

MALE PARTICIPANT: (Inaudible) relative to their view, find cars and people. The Army, they're

not looking (inaudible).

CHUCK CASTO: They said it would take days to analyze --

MALE PARTICIPANT: (Inaudible) that's hot.

MALE PARTICIPANT: That's right.

MALE PARTICIPANT: That could be something to kill.

MALE PARTICIPANT: Right. Well, they were sending up another chopper over flight with Japanese. And when they mentioned that to us, we said load it up with whatever you can in terms of instrumentation, even if you -- anything that's available. You may not think you need the data now, but if you collect it, it can come back to us.

(Background conversations.)

MALE PARTICIPANT: [redacted]

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(Simultaneous speech.)

CHUCK CASTO: The problem, I guess -- you think that's going to work?

MALE PARTICIPANT: I do.

MALE PARTICIPANT: Well, how long is it going to last?

MALE PARTICIPANT: It'll get us water in the pool. You can fill up the pool with it. Get some more fire --

CHUCK CASTO: Well, what helped us -- is this system going to help, or not help that we're building?

MALE PARTICIPANT: You know (inaudible).

[redacted]

MALE PARTICIPANT: Yes.

CHUCK CASTO: Diesel fuel.

MALE PARTICIPANT: And then the rest of the problem (inaudible).

CHUCK CASTO: Yes, they had a fire truck they ran out --

MALE PARTICIPANT: They also had an issue with the pond.

(Simultaneous speech.)

CHUCK CASTO: So, are we okay with the way

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we're headed, or not?

MALE PARTICIPANT: Okay, get that fire (inaudible).

CHUCK CASTO: Mechanical system. I think we've got (inaudible) --

OPERATOR: Are you still there, Mr. Casto? Mr. Casto?

(Simultaneous speech.)

CHUCK CASTO: Well, also, if we Zirc fire there's going to be any -- that's why --

MALE PARTICIPANT: That's interesting. I don't (inaudible).

CHUCK CASTO: I can tell you what happened at PACS. I was there for --

(Simultaneous speech.)

CHUCK CASTO: No, they had a Zirc fire. They shattered that fuel.

MALE PARTICIPANT: This one here is (inaudible).

CHUCK CASTO: Hello? Are we on?

MALE PARTICIPANT: Yes, we're on.

CHUCK CASTO: Okay. Sorry. This is Chuck. Who's on the bridge?

MALE PARTICIPANT: Marty, Roy.

CHUCK CASTO: Okay. I'm sorry. I just --

we wanted to get anything that there was from you guys, and maybe share a little bit of a shift in the dynamic over here.

[redacted]

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[redacted]

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MALE PARTICIPANT: All right.

CHUCK CASTO: The only other maybe two significant items from us. One, we just got the green light from AID, DART and AID, and I don't -- for the

equipment list, I don't know exactly how -- I don't know that they were extremely impressed with our arrangement or logistics, but we did the best we could. We had a C130, and they kind of gave us a little frown at the C130. We were lifting it with a C130, and getting it up here from Perth, and they looked at us like we were amateurs, but that's okay. At least we had a plan. And they're going to take care of that. I feel fully confident that they -- yes, and I was thinking about why that's the case. I'm sorry. I got distracted. But they're going to get it up here, that equipment up here without any difficulty.

MALE PARTICIPANT: Okay. Now, Pat Highland who has taken over for RST is telling me that we have another call at 1:00 a.m. our time, so about an hour from now to review the design details. So, it sounds like they're -- that's okay, we can parallel process. So, if you make arrangements to transfer, we're finalizing on the design details.

MALE PARTICIPANT: We're going to be on line, and just the RST will be on line, too.

MALE PARTICIPANT: Yes.

MALE PARTICIPANT: Okay, we got it.

MALE PARTICIPANT: Yes.

MALE PARTICIPANT: Chuck, did you hear

that?

CHUCK CASTO: Did we hear that? I got distracted. I'm sorry, somebody was whispering in my ear.

MALE PARTICIPANT: Design (inaudible)RST, we'll have somebody on line.

CHUCK CASTO: [redacted] 5

MALE PARTICIPANT: Is that MOD?

CHUCK CASTO: We're still talking with them about adverse -- unintended consequences of that.

MALE PARTICIPANT: Chuck, is that MOD who is doing that now?

CHUCK CASTO: Yes. Is that right, MOD? Yes, MOD is doing that now. [redacted] 5

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But we think that a pipe system with pumps intended to do what we want them to do is probably still useful.

So, we went ahead and signed a contract of do the list. We're trying to do multiple solution paths, and if the fire trucks don't work, we've still got our equipment coming. So, if I have to write a check for the list, we can all collect up money and do the paperwork.

MALE PARTICIPANT: You don't have to eat much. We'll take it off --

CHUCK CASTO: Yes, by the way, we haven't eaten a whole lot. There's a whole lot of problems with getting food over here in the embassy.

MALE PARTICIPANT: Chuck, you can put in on his voucher.

CHUCK CASTO: I can tell you what -- I can

tell you that a ham sandwich and two adult beverages are going to cost you $60. But we're doing the best we can. Jim is sitting here eating, what is that? Crackers, some kind of crackers. But, anyhow --

MALE PARTICIPANT: You guys better (inaudible) that we're never going to get a replacement team over there.

[redacted]

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MALE PARTICIPANT: Chuck --

CHUCK CASTO: They take care of people in disaster relief, they can take care of a few NRC

people.

ROY ZIMMERMAN: Hey, Chuck, this is Roy Zimmerman. I was wondering, do you have a sense from MOD that they have an action plan with priorities of where [redacted] 5

CHUCK CASTO: Yes. They're certainly going for pool 3. Their belief -- well, first of all, Roy, good question. And they want all kinds of intel from us. I mean, they're really reaching out and telling us, look, whatever intel you can give us, because we get nothing from TEPPCO. We don't know what to look for, so we're basically their eyes and ears. Okay? They're the lifting, they're the arms and the legs, but [redacted] 5 [redacted] but they -- a couple of things.

One, they've run some calculations themselves on margins of spent fuel pools. They think, on Unit 1, they think they have plenty of time on Unit 1. They think the pool is full, and they think just natural evaporation, basically, on the pool.

On Unit 2, they think they have significant time, as well, lots of time. Pool 1, they think they have 128 days. Pool 2 they think they have 40 days, and number 3, they admittedly say number 3 is dry. Number 4, they think they still have some water

in number 4. But it's highly uncertain. They've taken a swag at it, but it's highly uncertain what's in number 4. So, their priority is number 3, because they know it's empty. And then they'll draw their attention to number 4 spent fuel pool.

ROY ZIMMERMAN: If they had to pick a spent fuel pool that's lost integrity, would that be 3 or 4?

CHUCK CASTO: We can't really tell which one -- if one of them has lost integrity. It doesn't -- it's not -- [redacted] somebody help me out. Where is Jim? Make sure I'm not lying here. Okay? [redacted] we don't -- I don't think we think any of them have severe structural damage. It looks like number 4 has walls and a floor, some.

JIM: It looks like -- you know, the blast at 4 was significant enough that certainly the refueling floor that you'd expect to see in a BW2 has been compromised. They took out a wall --

CHUCK CASTO: Yes, but I'm talking about the structural integrity of the pool.

JIM: The pool is probably there.

CHUCK CASTO: And it doesn't look like, from the intel we have, that there's so much structural integrity that you can't put some water in

it and maybe maintain water in it. I mean, it looks like they have enough integrity on 3 and 4 to put water in, and hold water.

JIM: The internal signature still looks square, but you really don't know if there's a crack in the pool, whether there's water in it, or not.

CHUCK CASTO: Yes. But it's not a major hole that a fire truck couldn't -- it's not -- you might have cracks in the fuel pool, and you may lose -- and that goes to the fact of you may not be able to shut down the fire truck, because it's leaking out as fast as the fire truck can put in.

ROY ZIMMERMAN: Do you have a sense of their timing for when they're going to try this activity with the fire trucks?

CHUCK CASTO: [redacted]

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JIM: Yes, I think they had -- if they were right, [redacted] They're putting sort of a spider web together on site.

MALE PARTICIPANT: We got a live -- well, I don't know if it's live, but we've got a television projection of this right now in front of us. NHK World is showing the fire trucks. And in the meeting,

we talked to them and we said you know that spent fuel pool is hot as hell down in there. So, when they start dumping in these massive amounts of water, there's going to be some very energetic interaction. They're going to be -- they should be expecting a significant source term from this. I mean, if that water -- if these rods and all that are 1,000, 2,000 degrees, whatever, they're going to get a lot of energetic reaction from putting in this water, and they're going to be shooting the source term, et cetera, so they've just got to -- they've got to do something, but they have to know that it'll result in a decent source term coming off.

CHUCK CASTO: Marty, I'm sorry. I've got to go up and see the Ambassador for a minute. You guys can continue this. I'm sorry, Marty.

MALE PARTICIPANT: Okay, we'll talk again later.

CHUCK CASTO: Blow my boss of, but you sent me here to work with that other guy, so extraordinary times.

MALE PARTICIPANT: He's also told us he's at retirement age.

(Laughter.)

MALE PARTICIPANT: Anything else?

MALE PARTICIPANT: Just a question. Chuck said that they think that Unit 3 pool is dry. Do they still -- [redacted] [redacted] do they still see a vapor plume coming off of Unit 3?

MALE PARTICIPANT: Negative.

MALE PARTICIPANT: Okay. So, they think that all of that steam in the path was the evaporation of the Unit 3 pool, and that that's now completed?

MALE PARTICIPANT: Yes.

MALE PARTICIPANT: We'll shoot you a one-page fax, if I can figure out to how use the fax form. It's their calculations. They have no measurements, but it's their calculations on water, evaporation rates, the amount of water they should have, what they think is left, and volume needed, and time margins, et cetera.

MALE PARTICIPANT: Some of the things that would make that calculation, I would think, a little uncertain would be is when this earthquake hit, the slosh of water that might have sloshed out of that pool might have been pretty significant.

MALE PARTICIPANT: Right.

MALE PARTICIPANT: You don't really -- I mean, that would be a tough thing to calculate. It's an assumption.

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MALE PARTICIPANT: Yes.

MALE PARTICIPANT: Okay.

[redacted]

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[redacted]

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MALE PARTICIPANT: Okay. Anything else?

MALE PARTICIPANT: Not from here.

MALE PARTICIPANT: All right. I think we're okay from here right now.

MALE PARTICIPANT: We'll send you some McDonalds.

MALE PARTICIPANT: There's plenty of those here.

(Laughter.)

MALE PARTICIPANT: All right. We've got it all.

MALE PARTICIPANT: Thanks. Take care.

(Conference concluded.)