OFFICIAL TRANSCRIPT OF PROCEEDINGS

Agency: UNITED STATES NUCLEAR REGULATORY COMMISSION

Title: TRANSCRIPT OF PROVIDED TAPES - SALEM ALERT (CLOSED)



Docket No.

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ANN RILEY & ASSOCIATES, LTD. 1250 I St., N.W., Suite 300 Washington, D.C. 20005 (202) 842-0034



بمالية وحايقة بالالجار والأحيزية ومتواصل حربتا تبرا

1 MR. HEADMAN: This is Tom Headman, Timing 2 Communicator of Salem Unit 1. We have an unusual event. It 3 was declared at 10:47. 4 VOTCE: 10:47 or 11:00? 5 6 MR. HEADMAN: 10:47. VOICE: Okay. [Inaudible.] Your name please? 7 MR. HEADMAN: Tom Headman. 8 9 VOICE: Headman? MR. HEADMAN: Yes, m-a-n. 10 VOICE: [Inaudible.] 11 MR. HEADMAN: Okay. 12 VOICE: What happened earlier? 13 MR. HEADMAN: I want to read this sheet off to 14 you, so I can --15 16 VOICE: [Inaudible.] Hello? MR. HEADMAN: Hi, my name is Tom Headman. 17 MR. GOULD: My name is Gould, G-o-u-l-d. 18 MR. HEADMAN: G-u? 19 20 MR. GOULD: G-o. MR. HEADMAN: G-o-u-l-d? Okay. Timing 21 Communicator at Salem Station, Unit Number 1. 22 MR. GOULD: Yes. 23 MR. HEADMAN: An unusual event was declared. 24 MR. GOULD: What time? 25

MR. HEADMAN: At 10:47. Power before was 75 1 2 percent power in Mode 1 before the event. 3 MR. GOULD: What is it now? MR. HEADMAN: Power is a zero percent in Mode 3. 4 5 Okay. I want to read you the event description. An unusual event was declared at -- this says 1100. 6 7 MR. GOULD: 1100 or --8 MR. HEADMAN: 10:47. 9 MR. GOULD: Okay. 10 MR. HEADMAN: Following a reactor trip and a safety injection. 11 12 MR. GOULD: Okay. MR. HEADMAN: Reactor trip occurred during load 13 reduction. 14 15 MR. GOULD: Yes. 16 MR. HEADMAN: Due to loss of circulators. 17 MR. GOULD: Yes. MR. HEADMAN: Safety injection occurred due to low 18 19 Tave and high steam flow. 20 MR. GOULD: Low Tave and high steam flow? 21 MR. HEADMAN: During the trip. 22 MR. GOULD: Okay. 23 MR. HEADMAN: RCS pressure is presently 22/35. All safety systems operated as designed except safety 24 injection valve. 25

MR. GOULD: What happened there? 1 / MR. HEADMAN: Which did not close automatically, 2 and they were manually closed. 3 MR. GOULD: Okay. 4 MR. HEADMAN: SI has been reset, and normal 5 charging invoked. 6 MR. GOULD: Okay. 7 MR. HEADMAN: That's all for the description. 8 MR. GOULD: Did you get any -- how much injection 9 did you get? 10 MR. HEADMAN: Sir, I don't know that right now. Ι 11 could find out and get back to you, but this is all the 12 description I have at this time. 13 MR. GOULD: And you don't know how long the safety 14 injection was on? 15 16 MR. HEADMAN: No. MR. GOULD: [Inaudible.] 17 MR. HEADMAN: Okay, you need how long? 18 MR. GOULD: How long and how much water. 19 MR. HEADMAN: How much. Okay. 20 MR. GOULD: What was the trip signal? 21 Trip signal? I am really not sure, MR. HEADMAN: 22 sir. I am just trying to read you what I have right now. 23 MR. GOULD: [Inaudible.] 24 MR. HEADMAN: I have someone working on page 2 25

right at the moment of this data sheet. I will have some 1 other information to read off to you. 2 3 MR. GOULD: Okay. MR. HEADMAN: It's about notifications. And the 4 NRC Resident was notified, local LEC Township Police were 5 6 notified. 7 MR. GOULD: Howard's Beach? MR. HEADMAN: Yes. The State of New Jersey State 8 Police were notified. The State of Delaware was notified. 9 10 I haven't found other government agencies were notified. 11 MR. GOULD: Any [inaudible] of note? MR. HEADMAN: Not at this time. 12 MR. GOULD: Okay. Do you have any of the safety 13 [inaudible] people? 14 MR. HEADMAN: Not at the moment, no. 15 MR. GOULD: That means Bill Olsen. 16 Sir, I really don't know. 17 MR. HEADMAN: We are 18 working on page 2 right now. I'm sorry I can't give you 19 more information than that. I can get back to you. MR. GOULD: Okay. Let me give you a list of other 20 21 things that I need. 22 MR. HEADMAN: Okay. 23 MR. GOULD: Ready? 24 MR. HEADMAN: Yes. MR. GOULD: Okay. First of all, the amount of 25

water injected and the length of time of the injection. 1 2 MR. HEADMAN: Right. MR. GOULD: Did any safety relief valves lift 3 during the trip, and if so, how long did they lift. 4 5 MR. HEADMAN: Excuse me, how long? MR. GOULD: How long did they lift, and if they 6 7 fully receded. Okay. 8 MR. HEADMAN: MR. GOULD: Did all rod [inaudible] trip. 9 10 MR. HEADMAN: Okay. MR. GOULD: I also want to know the trip signals 11 12 for the -- that caused the load arm to trip. 13 MR. HEADMAN: Okay. 14 MR. GOULD: And also the cause of the load reduction. 15 MR. HEADMAN: Load reduction? 16 MR. GOULD: Yes. 17 That was due to --MR. HEADMAN: 18 MR. GOULD: Load reduction signal, that caused a 19 loss of signal? 20 21 MR. HEADMAN: Right. 22 MR. GOULD: [Inaudible.] 23 MR. HEADMAN: Okay. 24 MR. GOULD: And would like to know what your 25 [inaudible.]

1 MR. HEADMAN: Okay. MR. GOULD: And that is about it for right now, 2 but I need to get all those questions answered. 3 4 MR. HEADMAN: Okay. MR. GOULD: And I appreciate it. Oh, are you 5 still in the unusual event, correct? 6 7 MR. HEADMAN: That is correct. MR. GOULD: Then I need a call back when the 8 9 unusual event is completed. MR. HEADMAN: Correct. 10 11 MR. GOULD: Okay, but I need those things as soon as you get them. 12 MR. HEADMAN: Okay. Bye. 13 14 [Pause.] VOICE: The second conversation is a conversation 15 16 that was recorded at 11:52 of 4/7/94. 17· MR. HEADMAN: May I speak to Mr. Gould? 18 MR. GOULD: Speaking. MR. HEADMAN: Mr. Gould, this Tom Headman. 19 MR. GOULD: Right. 20 MR. HEADMAN: The Communicator at Salem Unit 1. 21 22 MR. GOULD: Right. MR. HEADMAN: First of all, I want to read you an 23 update, and then I have those answers to your questions. 24 25 MR. GOULD: Okay.

MR. HEADMAN: Okay. Again, we are still in the 1 unusual event, zero percent power Mode 3. 2 MR. GOULD: Okay. 3 MR. HEADMAN: Update to the previous UE Report. 4 At 1126 hours 11 steam generator safety lifted. 5 MR. GOULD: 11 steam generator safety lifted, 6 okay. 7 MR. HEADMAN: The ensuing cooldown resulted in --8 9 MR. GOULD: Wait a minute. MR. HEADMAN: Okay. 10 11 MR. GOULD: The cooldown resulted? MR. HEADMAN: In a decrease --12 MR. GOULD: In a decrease --13 MR. HEADMAN: RCS pressure. 14 MR. GOULD: All right. 15 MR. HEADMAN: The previous safety injection --16 MR. GOULD: Okay. 17 MR. HEADMAN: Resulted in one train of SI. 18 MR. GOULD: Okay. 19 MR. HEADMAN: Not being blocked. 20 MR. GOULD: Okay. 21 MR. HEADMAN: The decreasing RCS pressure --22 23 MR. GOULD: Okay. MR. HEADMAN: -- therefore cause SI to reinitiate. 24 MR. GOULD: Wait a minute. Caused what? 25

MR. HEADMAN: Caused SI to reinitiate. 1 . MR. GOULD: To reinitiate? 2 MR. HEADMAN: Correct. 3 MR. GOULD: Do you know what time that was? 4 MR. HEADMAN: Not at the moment. I still have a 5 couple of -- I don't know what the time was on that. 6 MR. GOULD: Okay. I need to get that. Go ahead. 7 MR. HEADMAN: RCS pressure is presently 23/15. 8 MR. GOULD: 23? 9 15. Safety injection --10 MR. HEADMAN: MR. GOULD: Wait a minute. Okay. 11 MR. HEADMAN: Safety injection has been reset both 12 trains. 13 MR. GOULD: On both trains? 14 MR. HEADMAN: Correct. 15 MR. GOULD: Okay. 16 MR. HEADMAN: All right. Now I have some answers 17 to your questions. 18 MR. GOULD: I might have to get the same --19 [inaudible.] 20 MR. HEADMAN: How long and how much water of the 21 22 SI --MR. GOULD: With the closed off on. 23 MR. HEADMAN: Excuse me? 24 MR. GOULD: With the closed off on. 25

MR. HEADMAN: Yes. We don't have that information 1 2 right now. MR. GOULD: You don't have length of SI or 3 quantity? 4 MR. HEADMAN: Right. 5 MR. GOULD: Okay. And I need to get that for the 6 7 [inaudible] files, first and second. 8 MR. HEADMAN: Okay. MR. GOULD: Okay. Go ahead. 9 MR. HEADMAN: The safety release that lifted was 10 11 steam generator. I don't know how long, but it was -- it 11 is reset now. It is fully reseated. All rods did insert. 12 The first out for the reactor trip was power low 13 14 range, flux hot. 15 MR. GOULD: Okay. MR. HEADMAN: And the first out for the safety 16 17 injection was low Tave and high steam flow. MR. GOULD: [Inaudible.] Okay. 18 MR. HEADMAN: And the heat sink is the steam 19 generators. 20 21 MR. GOULD: Okay. MR. HEADMAN: Okay. 22 MR. GOULD: That is about it for that? 23 MR. HEADMAN: Yes. 24 MR. GOULD: Okay. Now get back with me on first 25

the length of time and the quantity of water. Want to check 1 2 it for both, safety injection. And get back with me. 3 MR. HEADMAN: Okay. 4 MR. GOULD: Okay. 5 MR. HEADMAN: Thank you, Mr. Gould. 6 [Pause.] 7 VOICE: The third conversation is the alert 8 notification at 1353 to the Operations Center. 9 VOICE 1: NRC Operations Center, recorded line. 10 MR. HEADMAN: Yes, this is Tom Headman, Communicator in the Control Room at the Salem Nuclear 11 Generating Station, Unit Number 1. 12 This is notification of an alert which was 13 declared at 13:16 hours on 4/7/94. 14 15 VOICE 1: Right. MR. HEADMAN: BCG section 17. 16 17 VOICE 1: Okay. MR. HEADMAN: Initiating condition B as in bravo. 18 VOICE 1: Okay. 19 20 MR. HEADMAN: Okay. Description of the event: reactor trip with an SI at 10:47. 21 22 VOICE 1: Okay. 23 MR. HEADMAN: Precautionary upgrade to alert 24 status. 25 VOICE 1: Okay.

MR. HEADMAN: TSC activation request to support 1 unit cooldown to Mode 5. 2 VOICE 1: Okay. 3 MR. HEADMAN: There is no release in progress, 33 4 5 foot level wind speed. VOICE 1: Sir, at this point in time, I am going 6 to -- you are going to maintain continuous communications 7 with the NRC correct? 8 MR. HEADMAN: If that is what you are requesting, 9 10 yes. VOICE 1: We are. And you are the ENS 11 Communicator? 12 MR. HEADMAN: I am the Primary Communicator, Unit 13 1. 14 VOICE 1: Okay. I am going to add to you to our 15 ENS Bridge. You will be in connection with the Region I 16 IRC, a Mr. Bill Mayer. Stand by please. 17 VOICE 2: This is Region I on the line. 18 MR. HEADMAN: Yes. This is Tom Headman, 19 Communicator in the control room at the Salem Nuclear 20 Generating Station, Unit Number 1. 21 VOICE 2: Okay. 22 Hello, Mr. Mayer? 23 MR. MAYER: Yes. 24 VOICE 2: I have added Mr. Tom Headman. He is the 25

Primary ENS Communicator for the licensee. They have just 1 declared -- notified the Operations Centers at 1353 of the 2 declaration of an alert at 1316, and he has been asked to 3 maintain continuous communications with yourself. 4 MR. MAYER: Hi --5 MR. HEADMAN: Excuse me? 6 MR. MAYER: Mr. Headman? 7 MR. HEADMAN: Yes. 8 MR. MAYER: You want to give me the same 9 information order so that I can --10 MR. HEADMAN: Okay, I will read you my initial 11 contact message. 12 Thank you. MR. MAYER: 13 MR. HEADMAN: Okay? 14 MR. MAYER: Yes. 15 MR. HEADMAN: Okay, this is notification of an 16 alert which was declared at 1316 on 4/79/94. 17 BCG Section 17, initiating condition B as in 18 bravo. 19 Description of the event: reactor trip with an SI 20 at 10:47. Precautionary upgrades to an alert status. 21 TSC activation request to support unit cooldown to 22 Mode 5. 23 There is no release in progress, 33 foot wind 24 speed is 22 miles per hour, wind direction from 300 degrees. 25

There are no protective actions are recommended at 1 this time. 2 MR. MAYER: Okay. Is that all of it? 3 That is -- I have the NRC data sheet MR. HEADMAN: 4 That was the initial contact message. 5 as well. MR. MAYER: No updates to that? 6 MR. HEADMAN: Excuse me? 7 MR. MAYER: No updates to the NRC data sheet on 8 the initial contact --9 MR. HEADMAN: No --10 MR. MAYER: -- unusual event? 11 MR. HEADMAN: -- on my data sheet at 1316 the 12 unusual event was upgraded to an alert, TSC activation 13 requested to support unit cooldown to Mode 5. 14 15 MR. MAYER: Okay. MR. HEADMAN: Okay. The NRC Resident has been 16 informed. 17 MR. MAYER: Is he in the control room now? 18 MR. HEADMAN: Is the NRC resident here? 19 VOICE: He's on the other line. 20 MR. HEADMAN: He is on the other line. 21 MR. MAYER: But he is in the control room. 22 MR. HEADMAN: Yes. 23 MR. MAYER: Where are you at, Tom? 24 MR. HEADMAN: I am in the Shift Supervisor's 25



office.

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MR. MAYER: Okay.

MR. HEADMAN: Local township -- Lower Elkridge 3 Creek Township Police were notified, the State of New Jersey 4 Police were notified, the State of Delaware was also 5 6 notified. That is all the information I have for you at this 7 time. 8 MR. MAYER: A couple of other things I would like 9 Are you part of the normal shift crew? 10 to ask. 11 MR. HEADMAN: Yes. Yes, I am. MR. MAYER: What is the crew that is on Unit 1 12 today? 13 MR. HEADMAN: As far as? 14 MR. MAYER: Senior Shift Supervisor? 15 MR. HEADMAN: Right. 16 MR. MAYER: Board Operator? 17 Board Operator. 18 MR. HEADMAN: MR. MAYER: Operator? 19 MR. HEADMAN: Excuse me, what operator? 20 MR. MAYER: STA? 21 22 MR. HEADMAN: Yes. MR. MAYER: Who are the people who are filling 23 those roles on Unit 1? 24 MR. HEADMAN: Do you need to know the names? 25



MR. MAYER: Yes. 1 MR. HEADMAN: Okay. Senior Shift Supervisor, 2 there is Mike Wertz. 3 MR. MAYER: Okay. 4 MR. HEADMAN: Unit 2 -- Unit 1, I'm sorry, my 5 6 fault. Unit 1 Shift Supervisor, Wayne Holmes. 7 MR. MAYER: Okay. 8 MR. HEADMAN: STA is Sue Simpson. 9 MR. MAYER: Sue Simpson. 10 MR. HEADMAN: Who is the Board Operator, Bob? 11 Board Operator? Board. 12 13 MR. MAYER: Hey, Tom? MR. HEADMAN: Yes. 14 MR. MAYER: You can get that later. 15 16 I just want to verify with you the time of the alert 17 declaration. Was it 1316? 18 MR. HEADMAN: That is correct. 19 MR. JOLICOEUR: And the notification time was at 20 1353, right? 21 22 MR. HEADMAN: Yes. I have 1354. MR. JOLICOEUR: 1354 to NRC? 23 MR. HEADMAN: Correct. 24 MR. JOLICOEUR: Do you know what time the locals 25

were informed?

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MR. HEADMAN: Yes. Which ones do you need to
know? I will tell you right now.
MR. JOLICOEUR: The New Jersey and Delaware.
MR. HEADMAN: Okay, Delaware was notified at 1321.
MR. JOLICOEUR: Delaware?
MR. HEADMAN: Yes. New Jersey State Police were
notified at 1323.
MR. JOLICOEUR: How about LEC?
MR. HEADMAN: LEC was notified at I have it
1328.
MR. JOLICOEUR: Okay. All right. Thank you.
Let's see, what other things do we
MR. HEADMAN: Can I have the NRC Operations
Center, I need to have a name for that.
MR. JOLICOEUR: Beg your pardon?
MR. HEADMAN: I needed to have a name for the NRC
Operations Center.
MR. JOLICOEUR: Oh. This is John Jolicoeur. I'm
just going to be putting it on the speaker.
MR. HEADMAN: John who?
MR. JOLICOEUR: John Jolicoeur.
MR. HEADMAN: Can you spell that?
MR. JOLICOEUR: Yes, J-o-l-i-c-o-e-u-r. Who am I
talking to?

MR. HEADMAN: This is Tom Headman, the 1 2 Communicator at the Salem --MR. JOLICOEUR: Oh, I didn't know I was already in 3 touch that's all. 4 5 And also Bill Mayer at the Region is also on. MR. HEADMAN: Okay, thank you. 6 MR. JOLICOEUR: Mr. Mayer? 7 MR. MAYER: Yes. 8 9 MR. HEADMAN: Okay. 10 [Pause.] 11 MR. HEADMAN: They are keeping me on. 12 VOICE: I guess they are going to be keeping you 13 on for a while. 14 [Pause.] MR. MAYER: Mr. Headman, are you on the line? 15 MR. OLSEN: Yes, this is Bob Olsen. 16 MR. MAYER: Hey, Bob. How are you doing? This is 17 18 Bill Mayer. MR. OLSEN: Hi, Bill. 19 20 I am maintaining contact here at the MR. MAYER: region, and I was just calling to see what the status was, 21 22 and I got the information from Tom Headman. MR. OLSEN: Yes. He went upstairs. He will be 23 24 back in a few minutes. Is there anything I can help you with? 25

1 MR. MAYER: Yes. What I wanted to know -- are you 2 on? Are you familiar with what was going on, or were you on the shift or something? 3 4 MR. OLSEN: I have a pretty good picture of what 5 happened. I wasn't on at the time. 6 They had grass problems? 7 MR. MAYER: MR. OLSEN: Right. 8 9 And they were coming down, they were MR. MAYER: below 10 percent? 10 I believe they were about 7 percent. 11 MR. OLSEN: 12 MR. MAYER: 7 percent. You reset D-10? 13 MR. OLSEN: Right. MR. MAYER: And then there was a transient that 14 caused power to go up above 25 percent? 15 16 MR. OLSEN: That's correct. 17 Anybody aware of what the cause of MR. MAYER: that was? Do they have any idea? 18 19 MR. OLSEN: No, we are not sure yet, Bill. We are still trying to find out what happened, but it looks -- it 20 21 looks like maybe temperature went low and they were trying 22 to compensate with rods. 23 MR. MAYER: Okay. 24 MR. OLSEN: But it is too early to tell, really, until we get everybody down and find out what happened. 25

MR. MAYER: Right now we're precautionary alert? 1 2 MR. OLSEN: Right. 3 What are you on, days? MR. MAYER: I am off shift now. I am like MR. OLSEN: Yes. 4 5 Senior Work Control Center. MR. MAYER: Congratulations. 6 7 MR. OLSEN: Thank you. 8 MR. MAYER: They have Charlie Marshall in there, right? 9 10 MR. OLSEN: Yes. Charlie is -- I haven't seen him for a few minutes now. 11 12 I know Steve Bar is on an open line with NRC, and Charlie has been around along with Joe Shoppy and another 13 quy. I'm not sure who that is. 14 15 MR. MAYER: Jeff Block? 16 MR. OLSEN: Excuse me? 17 MR. MAYER: Jeff Block? MR. OLSEN: Yes, that could be it. 18 19 MR. MAYER: I also hear that they ruptured the 20 PRT? 21 MR. OLSEN: Yes, well the -- you know, we haven't 22 confirmed that yet, but the had the PRT to approximately 85 23 pounds. Some were over 210 degrees. I would assume it is 24 probably ruptured or leaking now. 25 MR. MAYER: Do they have indications of --

statement of dewpoint? 1 MR. OLSEN: You mean like pressure increase? 2 MR. MAYER: Pressure increase, dewpoint increase. 3 MR. OLSEN: There is marginal indication, but we 4 are waiting until they get everything reset and get our 5 monitors back in. That's much better -- that will give us a 6 better feel for it. 7 MR. MAYER: Okay. The hot rod monitor reading? 8 MR. OLSEN: Not yet. We are still restoring all 9 10 that. MR. MAYER: Why are they -- [inaudible.] 11 11A, 12A, 12B. MR. OLSEN: 12 MR. MAYER: Oh, on the [inaudible.] 13 MR. OLSEN: That isolates it. 14 MR. MAYER: Rick Bowland? 15 MR. OLSEN: Right. 16 They don't have any other indications MR. MAYER: 17 based on the area monitors? 18 Just the area ones, and I haven't MR. OLSEN: 19 really checked what the status of those are. 20 If you want I will take a look at it and let you 21 22 know. Well, don't bother anybody, but if you MR. MAYER: 23 have any indications. 24 MR. OLSEN: No problem, I will check it. 25

MR. MAYER: At R7. 1 MR. OLSEN: R7, 10A and 10B you mean? 2 MR. MAYER: Nothing on the high range [inaudible.] 3 MR. OLSEN: No, not that I know of. I will look 4 at those also for you. 5 6 [Pause.] MR. OLSEN: You want me to check them right now 7 for you? 8 MR. MAYER: No, no. I would like to keep the line 9 10 open. MR. OLSEN: I'll tell you what, I'll put Tom on 11 the line. He's back, and I will go check that stuff for you 12 now in a couple of minutes. 13 MR. MAYER: Who is on the board on the desk today? 14 MR. OLSEN: Bob Romonowski was on the console. 15 Bill Lyons was Best Operator. Wayne Holmes was Shift 16 Supervisor. 17 MR. MAYER: Okay, thanks, Bob. 18 MR. OLSEN: Sure. I'll get back to you in a 19 couple seconds here. Here's Tom. 20 Tom Headman, Primary Communicator. MR. HEADMAN: 21 MR. MAYER: Hi, Tom. 22 Okay, sorry. MR. HEADMAN: 23 MR. MAYER: Tom, while Bob is checking the things 24 I asked him about, could you read me over just to make sure 25

1 we have it straight from a power on reporting chain, what your initial contact with the NRC is. 2 MR. HEADMAN: Okay. You want the initial contact 3 4 message, right? MR. MAYER: For the NRC. 5 That's the NRC data sheet? MR. HEADMAN: 6 7 MR. MAYER: NRC data sheet. The initial contact you already read? 8 9 MR. HEADMAN: Yes, I already read that to you. I will just read you everything I have. I have 10 notification time of 1354. Event date, 4/7/94. Initial 11 event time, 10:47. Power before the event, 73 percent, Mode 12 1. Power after the event, zero, Mode 3. Event 13 classification, an alert. Event description at 13:16 hours 14 the unusual event was upgraded to an alert. 15 16 VOICE: Salem Unit 1. MR. HEADMAN: TSC activation requested to support 17 18 unit cooldown to Mode 5. 19 MR. MAYER: Okay. MR. HEADMAN: That is all I have. Notifications 20 21 made. 22 MR. MAYER: All right. 23 [Pause.] MR. OLSEN: Hi, Bill. R7 is in the seal table, 24 aren't meant to show anything. R2 is 130 deck area. That 25

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book is pretty good.
 1
                MR. MAYER:
                            10A and 10B?
 2
                MR. OLSEN: Looks fine. But they did get R11A
 3
      back on line and that is reading. It is in alarm.
 4
                                                           It is
      about 7,000 counts.
 5
                The PRT is holding pressure, but more than likely
 6
      it is leaking. They had pressure as high as 85 pounds, and
 7
      about 210-220 degrees.
 8
 9
                All indications are that it is probably leaking.
      Like I say, it is maintaining pressure, so it is not
10
11
      completely blown.
                           Anything for R12A, 12B?
12
                MR. MAYER:
                MR. OLSEN:
                           They weren't in alarm.
13
                MR. MAYER:
                            They were in alarm?
14
                MR. OLSEN:
                           No, they weren't.
15
16
                MR. MAYER:
                            They are not in alarm?
17
                MR. OLSEN:
                            No, they are a little higher than what
18
      they were before.
19
                           Do you have a PRT pressure that you
                MR. MAYER:
      are able to see?
20
                MR. OLSEN:
                           Excuse me?
21
22
                MR. MAYER:
                           Do you have a latest PRT pressure for
23
     me?
                            Wait, I'll get it for you. Wait until
                MR. OLSEN:
24
      I find somebody I can hand the phone to.
25
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1 MR. MAYER: No, that's okay. I can tell you it is at 210 2 MR. OLSEN: Huh? I saw that when I was in there. 3 degrees. I know. 4 MR. MAYER: Okay. 5 MR. OLSEN: Chris, ask Mike what PRT pressure is right here. 6 7 PRT pressure. PRT pressure. It is like zero to a pound right now. 8 9 MR. MAYER: Zero to a pound? MR. OLSEN: Yes. 10 MR. MAYER: Was that vented at all to 11 waste gas? 12 MR. OLSEN: I can't answer that without talking to 13 14 the guy. That's okay. The Communicator told me 15 MR. MAYER: there was no release, Bob. Do you know for a fact they 16 didn't have any pressure release or anything like that in 17 the event? 18 You mean during the event? 19 MR. OLSEN: MR. MAYER: After the event -- from the time the 20 event occurred until now, they had to do any pressure 21 cleaning? 22 MR. OLSEN: I don't believe so, but I can check 23 that for you too when I get Tom back here. 24 25 What else you got? Anything else?

MR. MAYER: You said it was [inaudible.] 1 2 MR. OLSEN: I will talk to him too and see how 3 high pressure went in the PRT. I mean, right now because it is zero or 1 doesn't -- I don't know how high it was after 4 5 they had it at 85, so let me talk to him about that. 6 MR. MAYER: Okay, so if you could find out if they 7 vented it at all and if they vent any pressure back. 8 MR. OLSEN: Okay. Here. Here's Tom. 9 MR. HEADMAN: Tom Headman, Communicator, Primary 10 Communicator. MR. MAYER: Tom, this is Bill Mayer. I am back on 11 12 the line. 13 MR. HEADMAN: Okay. 14 MR. MAYER: Tom, I need to ask you a question. Charlie Marshall, do you see him -- know who he is? 15 16 MR. HEADMAN: Yes. 17 MR. MAYER: Is he in the control room right now? 18 MR. HEADMAN: Standing right next to me. 19 MR. MAYER: Standing right next to you? 20 MR. HEADMAN: Yes. Do you need to talk to him? 21 MR. MAYER: Would you ask him to call the Region I 22 Response Center at 610 --23 MR. HEADMAN: Could you hold on one second, please? 24 25 MR. MAYER: Sure.

MR. HEADMAN: Okay, go ahead. Number? 1 MR. MAYER: Number is area code 610 --2 MR. HEADMAN: 610. 3 MR. MAYER: -- 337 --4 MR. HEADMAN: 337. 5 MR. MAYER: -- 5028. 6 MR. HEADMAN: 7 5028. MR. MAYER: Yes. Tell him Ed Winzinger would like 8 to speak to him. 9 What's the name? MR. HEADMAN: 10 11 MR. MAYER: Ed Winzinger. MR. HEADMAN: Ed Winzer? 12 13 MR. MAYER: Ed Winzinger. Winzinger? MR. HEADMAN: 14 MR. MAYER: Yes. 15 It's the Region I Office? MR. HEADMAN: 16 MR. MAYER: Yes. 17 18 MR. HEADMAN: Okay. MR. MAYER: Thanks. 19 20 MR. HEADMAN: Charlie, you need to call the Region I Office, Ed Winzinger. I have the number here, 610-337-21 5028. 22 MR. OLSEN: Bill? 23 MR. MAYER: Bob, this is Bill. 24 MR. OLSEN: Yes. They haven't done any pressure 25

release, okay?

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2 MR. MAYER: Pressure release? MR. OLSEN: Right. The PRT has never been up in 3 pressure over maybe zero to a half a pound so it is popped. 4 5 MR. MAYER: Okay. Well, we had indications. We had report that it got up to 85 pounds. 6 7 MR. OLSEN: That's what Mike Wertz told me, that he saw pressure as high as 85. 85 and 200 and some degrees 8 is usually, you know, it's gone. 9 10 MR. MAYER: Okay. And the indications that they have up 11 MR. OLSEN: 12 to this point are that it's popped. 13 MR. MAYER: All right. 14 MR. OLSEN: They, like I said, they haven't done any pressure release, they haven't vented it off anywhere. 15 16 MR. MAYER: Not vent to the PRT? 17 MR. OLSEN: Right. And since the high pressure condition, it hasn't gone over zero to a half pound. 18 19 MR. MAYER: So there really is nothing that is coming out of the containment? 20 21 MR. OLSEN: No. That's correct. 22 MR. MAYER: Okay. All right, thanks a lot. If you wanted to head off, you can put Headman back on. 23 MR. OLSEN: You want me to put Tom back on? 24 MR. MAYER: Yes -- hold on and let me see if there 25

1 is anything else anybody wants to ask him. [Pause.] 2 MR. MAYER: Bob, are you there? 3 MR. OLSEN: Yes. 4 MR. MAYER: This Tom? 5 MR. OLSEN: No, this is Bob. 6 7 MR. MAYER: Bob, people here at the Region would like to know from the folks in the control room the 8 9 pressurizer temperature, liquid temperature, and what the heat up rate is. 10 What they are getting at is they want to know when 11 the bubble affected the B draw on. 12 13 MR. OLSEN: Okay. Hang on, I'll get that for you. I will get that for you and put Tom back on. 14 15 MR. HEADMAN: Tom Headman. 16 MR. MAYER: Hi, Tom. 17 MR. HEADMAN: Hi. MR. MAYER: This is Bill. 18 19 [Pause.] Hey, Bill. 20 MR. OLSEN: Yes, Bob. MR. MAYER: 21 : 22 MR. OLSEN: Right now your vapor temperature is 23 625 degrees. MR. MAYER: 625, and the pressure is? 24 MR. OLSEN: They've got about a 34 degree per hour 25

heat up rate, so within the hour we should have -- start 1 drawing up. 2 MR. MAYER: Okay. Thanks a lot. That is as of 3 4 about 20? MR. OLSEN: Huh? 5 6 MR. MAYER: As of about 20? MR. OLSEN: Yes. 7 MR. MAYER: Okay. Thanks a lot. 8 9 MR. OLSEN: Okay. You still need the phone open? Bill? You still the line open? .10 Yes. We want to keep this open. 11 MR. MAYER: MR. OLSEN: I'll put Tom back on. 12 13 MR. MAYER: Okay. Thank you. MR. HEADMAN: Tom Headman. 14 MR. MAYER: Hi, Tom. This is Bill Mayer. We just 15 want to keep the line open just in case there are any other 16 questions. 17 18 MR. HEADMAN: Okay. 19 MR. MAYER: All right? 20 MR. HEADMAN: Yes. MR. MAYER: Just sit tight. There may be long 21 22 periods of silence. Excuse me? 23 MR. HEADMAN: MR. MAYER: There may be long periods of silence. 24 25 MR. HEADMAN: Okay.

MR. MAYER: 1 Bye. 2 [Pause.] 3 MR. MAYER: Tom Headman? MR. HEADMAN: Yes. 4 This is Bill Mayer of Region I. 5 MR. MAYER: Is 6 Bob Olsen available again, or is there somebody who --7 MR. HEADMAN: Let me see if I can get him. 8 Bob? Bob? Bob Olsen. Can you call him. 9 MR. OLSEN: Olsen. 10 MR. MAYER: Hey, Bob? 11 MR. OLSEN: Yes. This is Bill Mayer. There is one 12 MR. MAYER: question I wanted to ask you and I forgot to ask you. 13 We have indications at the Region that when 14 they got the first SI they only had one train picked up, and 15 only certain components actuated for the one train. 16 17 Joe B. and I were sitting here scratching our 18 heads. We seem to remember the data OR cable in SSPS. 19 Is that still there or is has there been a mod done to take that out? 20 21 MR. OLSEN: Is what still there, Bill? The OR cable. 22 MR. MAYER: MR. OLSEN: The OR cable? 23 24 MR. MAYER: Yes. 25 MR. OLSEN: Oh. Yes, that's still there.

MR. MAYER: So for an actuation on a single train,
 you should get both trains function, right?

MR. OLSEN: Sure.

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MR. MAYER: But they did not get that?

5 MR. OLSEN: That's what it looks like, Bill. All 6 we have to go on right now is bits and pieces, but it looks 7 like there were certain valves that didn't operate, okay?

8 Mainstream isolation off the first SI, and you got 9 two of the 167s. The two unit control ventilation swap only 10 got one of the trains, and when you put it all together it 11 looks like all the components that did not break properly 12 were on the B train.

When they got to a point in the EOPs where they went to reset the trains, the B trains still indicated it was reset, which indicates, you know -- looks like it never actuated, which could explain all the other valves that didn't move and whatnot.

Now, the second SI got both trains. It is hard to tell on the one, but both trains indicated they were out of the reset condition when we went to reset the second one.

The other thing is, you know, on RP 4 we had the train disagreement on the block. We have that flashing which indicates that there is, you know, the train disagreement.

MR. MAYER: Right.

1 MR. OLSEN: So everything seems to indicate that 2 the B train didn't actuate the first time, but the second SI 3 came off the B train.

MR. MAYER: The B train initiated the second one?
MR. OLSEN: That's what it looks like, yes.
MR. MAYER: And when they were in the EOPs they
only reset Train A?

8 MR. OLSEN: No, they reset both trains. It didn't 9 reset. Well, it indicated it was reset when they went over 10 to it. So they reset the A train. They still pushed the 11 button for the reset on the B train, but like I said, it was 12 already up.

MR. MAYER: Okay.

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14 MR. OLSEN: And they had the train disagreement 15 after that.

MR. MAYER: So something did not work properly with that first SI, and something didn't allow B train to go?

MR. OLSEN: Right. The second SI was an automatic SI. If everything had worked properly on the first SI the second one wouldn't have been automatic. It would have to have been a manually initiated SI.

23 MR. MAYER: You are talking about because it was24 reset?

MR. OLSEN: Right.

MR. MAYER: All right. 1 MR. OLSEN: But it was automatic. The second one 2 came in automatic. 3 MR. MAYER: So both conditions seem to point to a 4 problem with the B train? 5 MR. OLSEN: For right now, that's what everything 6 indicates, yes. 7 MR. MAYER: The first SI was automatically 8 [inaudible], right? 9 MR. OLSEN: That's correct. 10 MR. MAYER: And that was high steam flow with low 11 TS? 12 MR. OLSEN: Right. 13 MR. MAYER: Which MS 167 [inaudible]? 14 MR. OLSEN: I can't really tell you. All I know 15 is the two of them did, and I would have to go in and look 16 and get the EOP outlook and see which ones they wrote down. 17 MR. MAYER: That's okay. Actually, yes. If you 18 could find that out and write that down. 19 Hold on. 20 MR. OLSEN: 21 MR. MAYER: Thank you. Tom Headman. MR. HEADMAN: 22 MR. MAYER: Tom, Bill Mayer. 23 MR. HEADMAN: Okay. 24 [Pause.] 25

VOICE: The time is now 1429. 1 MR. O'DONALD: Phil O' Donald. 2 MR. MAYER: Hi, Phi. How are you doing? 3 4 MR. O'DONALD: I have been better, but hey. I guess so. Okay. Basically, what we 5 MR. MAYER: are looking at, I gave a list to Jeff Laughlin, but it looks 6 7 like right now is that all the valves that did not stroke look like they are associated primarily with the B train or 8 9 the FI piece of the SI, all right? The things like feedwater isolation, which comes 10 11 off only on an SI, not the feedwater airlock. MR. O'DONALD: Right. 12 The feedwater airlock worked fine on 13 MR. MAYER: Train A, Train B. Well, it doesn't matter. They weren't 14 closed. So the DF-19 and 40s were cold, but the 11 to 14 BF 15 16 13 apparently did not. MR. O'DONALD: 11 to 14? 17 18 MR. MAYER: Through 14. MR. O'DONALD: Oh, all four of them? 19 ø MR. MAYER: Right. 20 21 MR. O'DONALD: Okay. @And a couple of the other things were 11 and 12, MS 167 and 22 23 11 and 12 feeder feed pumps. So it looks -- what we are -- just a preliminary 24 review of the signals and stuff, it doesn't look like it was 25

in long enough to lock in, and basically when they had the reactor trip off the power range channels, it didn't lock in the SI signal. It wasn't in long enough. Basically, like a spike. When they had the reactor trip, it was just due to a power --

MR. O'DONALD: Power range.

7 MR. MAYER: I thought it was -- oh, it was power
8 range low set point?

9 MR. O'DONALD: Yes, power range low set point.
10 MR. MAYER: Not intermediate range?
11 MR. O'DONALD: Right.

MR. MAYER: Okay, so it is power range low setpoint?

MR. O'DONALD: Right. When that happens, when you trip the reactor, the trip breaker opens, that resets the set point, the high steam range, high flow set point down to the zero field, zero power level on a call back.

So, basically, it takes some period of time,
finite period of time for the steam flow to actually get
down there.

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MR. MAYER: Okay.

MR. O'DONALD: Longer than it takes for the thing to reset. I mean, electronic-wise, you're talking about in the order of cycles. So the actual -- you know, the bistables will trip momentarily and then reset on the high
steam flow, and since they have a high steam flow with a low 1 2 TL -- above the SI. MR. MAYER: Okay, but what the result, what was 3 the cause of the high steam flow? 4 MR. O'DONALD: When the trip set point goes down 5 6 to zero --MR. MAYER: Yes? 7 MR. O'DONALD: -- as soon as the breaker open it 8 9 goes to zero set point. MR. MAYER: But I thought that was 40 percent. 10 MR. O'DONALD: Yes -- well, again, momentarily 11 when it sees, it still goes down to that point. 12 MR. MAYER: It goes down to 40? 13 MR. O'DONALD: Yes, the set point is down to the, 14 you know, what --15 It goes down to zero percent and it 16 MR. MAYER: goes to 40 again, is that what you are saying? 17 MR. O'DONALD: 18 No. MR. MAYER: Okay. I'll listen. 19 MR. O'DONALD: It is hard to describe. 20 Electronically, what happens is, okay, there is zero set 21 point. Now, at the same times your valves, you know -- like 22 now your valves are still open because you haven't got the 23 turbine trip, so you may see the DP as equivalent to that. 24 MR. MAYER: Okay. 25

MR. O'DONALD: It is saying, hey, you still got 1 high flow at this particular set point, so you are, you 2 know, yes, you are roughly around 40 percent set point. 3 However, that is, in fact, what your set point is before the 4 actual steam flow decreases. 5 So you have that mismatch momentarily, and then it 6 goes back to zero as the valves are shutting down. 7 MR. MAYER: Yes, but they were already down below 8 7 percent. They were down around 7 percent power, correct? 9 MR. C'DONALD: They were on the order, from what I 10 can see here -- reset 15 -- about 10 percent. 11 I thought they got below 10 percent? MR. MAYER: 12 They did. That's what cleared the MR. O'DONALD: 13 lower range power trip set point, and then they came back up 14 again because they were trying to restore temperature. 15 So they were actually up, you know, they got --16 the steam dumps are opening --17 MR. MAYER: The steam dumps were still open from 18 the low reject? 19 MR. O'DONALD: Right. 20 MR. MAYER: So steam dumps were what were giving 21 them that 40 percent? 22 MR. O'DONALD: Yes. 23 MR. MAYER: Okay. 24 MR. O'DONALD: So once you got the 543, as soon as 25

you hit that point, those frames close and you still have that signal momentarily. And, again, when the trip happened --

MR. MAYER: I see what you are saying. Are you saying that at 543 they had the steam dumps go closed, but at the same time the SI closed set point went -- before the steam dumps were -- before the steam flow had really decayed off?

9 MR. O'DONALD: Right. Exactly.

10 MR. MAYER: Okay.

MR. O'DONALD: Right? So that is the flavor of why they ended up -- again, it is started as an FI momentarily, but not long enough to lock in. They are talking on the auto cycler too where it locked in or where it flipped up, and that's what we see here.

16 It wasn't even long enough for it to pick it up on 17 the beta. Again, I feel that the SI lock in separates 18 somewhere in the order of 200 milliseconds.

Like I said, don't quote me on that particular
number, but it is something greater than a couple of cycles.
A couple of cycles is only worth about 30 milliseconds.

22 MR. MAYER: It sounds like that kind of situation 23 could occur for any trip where you get low temperatures. 24 MR. O'DONALD: We have seen occasionally the high 25 steam flow momentarily come in, but normally -- during a

normal reactor trip, you not down that low enough before 1 2 those things clear. MR. MAYER: Okay. So the problem was that they 3 4 were down low already? 5 MR. O'DONALD: Yes. They were down at a 6 temperature lower than they had been. 7 MR. MAYER: They were lower than 547? MR. O'DONALD: Yes, I think --8 9 MR. MAYER: Had their low temperature --MR. O'DONALD: -- parts with that, but --10 MR. MAYER: They had the low temperature, and then 11 12 the trip from -- the trip gave them the --13 MR. O'DONALD: High steam flow SI, high steam flow set point 5 stables trip momentarily. 14 MR. MAYER: Whereas, for a normal trip you are --15 16 MR. O'DONALD: You know, 570. 17 MR. MAYER: 571. MR. O'DONALD: You are starting at that for a 18 19 power trip. MR. MAYER: And they don't get down there? 20 MR. O'DONALD: Right. They clear before the 543 21 22 comes up. 23 MR. MAYER: Okay. That's very helpful, Phil. 24 MR. O'DONALD: Okay. I will get you back to the 25 Communicator.



MR. MAYER: Thank you. 1 MR. O'DONALD: All right. 2 MR. HEADMAN: Tom Headman. 3 MR. MAYER: Hey, Tom. This is Bill Mayer. 4 MR. HEADMAN: Okay, Bill. 5 MR. MAYER: I am going to maintain the line so I 6 will still be on the phone, but you probably won't hear from 7 me for a while --8 MR. HEADMAN: Okay. 9 MR. MAYER: -- relieve some of our folks here at 10 the Region based on what Phil has just told me. 11 MR. HEADMAN: All righty. 12 MR. MAYER: All right? 13 MR. HEADMAN: Yes. 14 MR. MAYER: Hold on a minute, please. 15 [Pause.] 16 VOICE: [Inaudible.] 17 18 [Pause.] VOICE: [Inaudible.] 19 The time is now 1439. 20 VOICE: This is Bill Mayer. Is there anybody MR. MAYER: 21 there that can answer a question that I have with regard to 22 the first safety injection actuation. 23 The first -- excuse me? MR. HEADMAN: 24 MR. MAYER: The first safety injection actuation. 25

MR. HEADMAN: Let me look. Hold on. 1 [Pause.] 2 MR. HEADMAN: Bill? 3 MR. MAYER: Yes. 4 MR. HEADMAN: Hold on. 5 [Pause.] 6 MR. HEADMAN: Bill? 7 MR. MAYER: Yes. 8 MR. HEADMAN: I am working on someone right now. 9 MR. MAYER: Okay. Tom, let me tell you what I 10 just want to ask. 11 MR. HEADMAN: Okay. 12 MR. MAYER: We just want to ask were the 13 equipments that didn't work the only -- the ones that Phil 14 had told me about, the PS 13s and the MS 167 steam pumps, 15 are they the only things that didn't work off of Train B, or 16 was everything on Train B inoperative. 17 MR. HEADMAN: Okay. MS 167s and the PS 13s, if 18 they were the only ones on Train B that were inoperable? 19 MR. MAYER: The PS 13. 20 MR. HEADMAN: Yes. 21 MR. MAYER: MS 167. 22 MR. HEADMAN: Right. 23 MR. MAYER: And the steam generator steam pumps, 24 were those the only things that did not work, that did not 25

actuate properly for Train B. 1 2 MR. HEADMAN: Okay. MR. MAYER: Was everything else associated with 3 Train B inoperative also. 4 MR. HEADMAN: Okay. Can you hold on? 5 MR. MAYER: Yes. 6 [Pause.] 7 MR. O'DONALD: Hey, Bill? 8 MR. MAYER: Yes. 9 MR. O'DONALD: This is Phil O'Donald again. 10 11 MR. MAYER: Hi. MR. O'DONALD: They MS 167s are not train 12 specific, okay? They get it off both trains, Train A and 13 Train B. 14 MR. MAYER: Oh. Okay. 15 MR. O'DONALD: So those, from what we can see 16 right now, should have done. 17 MR. MAYER: They have the dual solenoids, rights? 18 MR. O'DONALD: Right. They have the dual 19 solenoids, MS 169 and 171. 20 MR. MAYER: Yes. Okay. Now I remember. 21 MR. O'DONALD: Right. Now it is all coming back. 22 We had one of the 171s bypassed. 12 MS 131 was bypassed 23 because of leakage. That was I think -- I am not sure which 24 one, whether Train B or Train A. I don't have that right in 25

front of me right now. PF 13s I am going to have to check 1 2 on. Feed pumps, I don't believe are train specific 3 4 either. But the other valves that I cited appear to be all 5 Train B related. 6 MR. MAYER: Bob Olsen told me that -- he said all valves were associated with B. 7 MR. O'DONALD: When they came back from the second 8 9 SI, all, everything, you know, appear to have the right signal and everything. They were already closed at that 10 11 time. MR. MAYER: Okay, but for the first SI, they got a 12 normal phase A? Like all the Train B valves were Phase A 13 closed, and everything else for Train B like the SJ 1 or 2? 14 MR. O'DONALD: The redundant valves off the first 15 16 SI work correctly. The 11 CH 330, the CV 40, the CV 116, all the Train A stuff worked correctly, and we know the 17 valves. 18 MR. MAYER: The B did also? 19 MR. O'DONALD: Say it again? 20 MR. MAYER: The B did also or did --21 MR. O'DONALD: No, no. What I am saying is that 22 Train B did not appear to get it the first time through. 23 MR. MAYER: Okay, so none of the Train B valves 24 repositioned for the first SI? 25

1 MR. O'DONALD: It didn't appear, no. 2 MR. MAYER: Okay. So what -- the situation is 3 with these 11 through 14 BF 13s and the 11 and 12 MS 167 4 feed pumps, those should have normally gone by virtue of 5 Train A actuating, but they did not? 6 MR. O'DONALD: What we can see right now, yes. 7 Again, we are going to have to verify that. That's just 8 It should have gone Train A or Train B. preliminary. 9 MR. MAYER: Right. 10 MR. O'DONALD. It wouldn't have made the 11 difference from what we can see right now. 12 MR. MAYER: The only exception being the fact that 12 MS 171 was on Train A, that would explain that one? 13 MR. O'DONALD: Right. That would explain that 14 15 one. 16 MR. MAYER: Yes. MR. O'DONALD: So it is something we are going to 17 18 have to take a look at. 19 MR. MAYER: Okay. So to answer our question, none 20 of the Train B components actuated for the first automatic SI? 21 22 MR. O'DONALD: I can't tell you categorically that all the Train B, but those Train B valves did not actuate. 23 I can't tell you categorically no Train B, but it doesn't 24 appear that way. So it is [inaudible.] 25

MR. MAYER: You don't have indications that Train 1 B worked at all? 2 MR. O'DONALD: Correct. 3 MR. MAYER: Okay, thanks, Bill. 4 MR. O'DONALD: Okay? 5 MR. MAYER: Appreciate it. 6 MR. O'DONALD: I'll get back. 7 MR. MAYER: Bye. 8 MR. HEADMAN: Tom Headman. Tom Headman. 9 MR. MAYER: Tom, this is Bill Mayer. 10 Okay, Bill. 11 MR. HEADMAN: MR. MAYER: Thanks. Just hold the line. We will 12 get back to you with the next question. You may not be able 13 to answer it. 14 MR. HEADMAN: Standing by. 15 16 MR. MAYER: Okay, bye. [Pause.] 17 VOICE: The time is now 1513. 18 MR. DeANTONIO: Hello. 19 MR. HEADMAN: Hello. 20 MR. DeANTONIO: Yes, here I am. 21 MR. HEADMAN: This is Tom Headman. 22 MR. DEANTONIO: Tom, question for you. We're here 23 trying hard to remember our Salem days. 24 Once you are SI in the first place, nd then you 25

1 reset SI, in order to get another SI, do you have to cycle 2 the trip breakers? MR. HEADMAN: Excuse me? 3 MR. DeANTONIO: Once you have a safety injection 4 5 MR. HEADMAN: Why? 6 MR. DeANTONIO: No. Listen. You had a safety 7 injection. 8 9 MR. HEADMAN: Right. MR. DEANTONIO: If you reset SI in that, do you 10 have to cycle the trip breakers to get another safety 11 12 injection? MR. HEADMAN: I'm going to have to get someone to 13 14 answer that for you, okay? MR. DeANTONIO: See if we recall how it works. 15 MR. HEADMAN: Excuse me? Let me get somebody. 16 Can you hold on for a second. I have to put the phone down 17 for a minute so I can get somebody. 18 19 MR. OLSEN: Olsen. MR. DEANTONIO: Bob, Joe DeAntonio here. 20 21 MR. OLSEN: Yes. How you doing, Joe? 22 MR. DeANTONIO: Oh, so far so good. What we are 23 asking is, the story we have is you had two separate SIs. MR. OLSEN: Right. 24 MR. DeANTONIO: Okay, and from what myself and 25

Bill seem to recall from our Salem days, did you reset SI at 1 all between the first one and the second one? 2 MR. OLSEN: We reset in accordance with EOP. 3 MR. DEANTONIO: So, we could recall that you have 4 an SI, you reset SI, you won't get another SI unless you 5 6 cycle the trip breaker. MR. OLSEN: Yes, but it looks like we only got the 7 first SI on one train. 8 9 MR. DEANTONIO: Okay, I get it. MR. OLSEN: And when we reset, we only reset on 10 train. We have the train disagreement on the block. 11 MR. DEANTONIO: Okay. I'll figure it out. 12 MR. OLSEN: So the second SI came off of the train 13 that really was a problem on the first SI. 14 MR. DEANTONIO: We understand. You only went 15 16 through that cycle for one train? MR. OLSEN: Right. And we hit the reset for both 17 trains when we got the EOPs, but when they went to reset it, 18 it indicated it was reset, indicating it never initiated an 19 SI. 20 MR. DeANTONIO: We understand. 21 MR. OLSEN: Okay. I will put Tom back on. 22 23 MR. DeANTONIO: Okay. MR. HEADMAN: Tom Headman. 24 MR. DeANTONIO: Okay, Tom. [Inaudible] hold the 25

phone.

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MR. HEADMAN: What's that? 2

3 [Pause.]

VOICE: The time is now 1520. 4

VOICE: 5 Tom.

> Yes, this is Tom. MR. HEADMAN:

7 What is the condition -- there is a discussion going on that 8 being in Mode 3 the way you are, with SI locked in at questionable state, whether it works at all, that you are in 9 10 motherhood, and that you ought to be in hot shutdown in six 11 hours.

12 MR. DeANTONIO: Anybody checking the tech specs -you can't say at hot standby [inaudible.] 13

MR. HEADMAN: I got to get you someone else one 14 15 more time. Basically, just hold on the phone so you can get a hold of somebody. I have to find someone else, okay? 16 17

MR. DeANTONIO: I understand.

I am just going to set the phone 18 MR. HEADMAN: 19 down and get somebody.

Sounds good. 20 MR. DeANTONIO:

21 MR. OLSEN: Olsen.

MR. DeANTONIO: Bob --22

MR. OLSEN: Hello? 23

MR. DeANTONIO: Yes, Bob. You're still in Mode 3 24 right now, right? 25

MR. OLSEN: That's correct. 1 MR. DeANTONIO: By motherhood, how long did you 2 stay in Mode 3? I forget. Got to hold the board six hours? 3 4 MR. OLSEN: Yes, in six hours it will be in hot shutdown, and then 24 to cold shutdown. 5 MR. DeANTONIO: Okay. Is there any possibility of 6 making it to six hours to hot shutdown? 7 MR. OLSEN: That's correct. And we are in two 8 action statements that drive us there, the motherhood for 9 the two trains of solid state, and the action for the 10 11 pressurizer and operability. MR. DEANTONIO: Are you guys going to make it? 12 MR. OLSEN: No, that's why there is discussions on 13 discussion of reinforcement. 14 MR. DeANTONIO: I understand. 15 MR. DEANTONIO: That was the end of the question. 16 MR. OLSEN: Yes, got there. Got there before you 17 did, huh? Yes, that is what the discussion is about now. 18 MR. DeANTONIO: Okay. 19 MR. OLSEN: Is that it? 20 MR. DEANTONIO: Yes, that was it. 21 MR. HEADMAN: Tom Headman back on the line. 22 23 MR. DeANTONIO: Okay. [Pause.] 24 VOICE: The time is now 1525. 25

1 [Pause.] 2 MR. DeANTONIO: Tom? 3 MR. HEADMAN: Yes. MR. DeANTONIO: When are you guys going to 4 5 terminate the alert? What conditions do you need to terminate the alert? 6 7 MR. HEADMAN: Can you hold on? 8 MR. DeANTONIO: Yes. 9 [Pause.] 10 MR. O'DONALD: Phil O'Donald. 11 MR. DEANTONIO: Phil, we would like to know --12 MR. O'DONALD: Who is this? MR. DEANTONIO: Joe DeAntonio. 13 14 MR. O'DONALD: Joe D. I was talking to Bill Mayer earlier. 15 16 MR. DEANTONIO: We would like to know is what 17 conditions you need to terminate the alert and when you 18 think you are going to meet those conditions. 19 MR. O'DONALD: Okay. Right now we the conditions -- we had called the alert as a precautionary alert, and 20 21 there were no specific conditions that were timed to the determination of the alert. 22 23 Right now we have a bubble on the pressurizer. Ι 24 am probably going to have to defer to the EDO as far as when

he wants to terminate the alert. He is over in the TSC

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right now, so I can't tell you what conditions he is going to end up looking for relative to -- I can't tell you right off the top of my head what he is going to look for.

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I would expect he would want to -- once we start the cooldown and start the depressurization, somewhere along that timeframe he will probably de-escalate it to a UE.

7 MR. DEANTONIO: Once you secure the alert, we are 8 going to basic secure here. The thing is also seen -- both 9 of us helping to give you notification and all.

MR. O'DONALD: Right. I would -- I guess the best thing to do is talk with the TSC. Again, he is the emergency duty officer and emergency coordinator right now, so I would expect it will probably be along the line of as soon -- when we start cooling down here.

We are going to have to ask for discretionaryenforcement of the action statement.

MR. DeANTONIO: Okay. Go ahead. 17 MR. O'DONALD: Say it again. 18 MR. DeANTONIO: Go ahead then. 19 MR. HEADMAN: Tom Headman back on. 20 MR. DeANTONIO: Yes, Tom. 21 22 [Pause.] VOICE: The time is now 1544. 23 MR. DeANTONIO: Hello? 24 MR. HEADMAN: Hello. 25



MR. DeANTONIO: Can you get a general update on 1 conditions right now? 2 MR. HEADMAN: Okay, can I put the phone down for a 3 minute? 4 5 MR. DeANTONIO: Sure. 6 [Pause.] 7 MR. O'DONALD: Hello? MR. HEADMAN: I'm trying to get a hold of somebody 8 9 right now. There are some people busy right now. 10 MR. DeANTONIO: Okay. 11 MR. HEADMAN: Okay. I will be with you in 12 hopefully a couple of minutes. MR. DeANTONIO: Sure. 13 14 [Pause.] 15 MR. OLSEN: Olsen. MR. DeANTONIO: Yes, Bob. Joe DeAntonio here. 16 MR. OLSEN: Here is what you got. We are at 2230 17 pounds. 18 MR. DeANTONIO: 19 Yes. MR. OLSEN: Okay? 20 21 MR. DeANTONIO: Yes. 22 MR. OLSEN: Pressurizer level, 73 percent. 23 MR. DeANTONIO: Above water? 24 MR. OLSEN: RCS temperature is 538 degrees. 25 MR. DEANTONIO: Okay. Any plans to move down

[inaudible.]

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MR. OLSEN: They are transitting or getting ready 2 to transit between the EOP and IOP 6 now which will start 3 the cooldown. 4 MR. DeANTONIO: Okay. I quess that [inaudible.] 5 MR. OLSEN: Huh? 6 MR. DeANTONIO: I will let you leave the phone 7 Thank you, Bob. 8 now. MR. OLSEN: Okay. 9 [Pause.] 10 VOICE: The time is now 1552. 11 MR. DEANTONIO: Tom, we are giving the phone back 12 to Bill Mayer. 13 MR. HEADMAN: Okay. 14 MR. MAYER: Tom, this is Bill Mayer. I am on the 15 line now. 16 MR. HEADMAN: Okay, Bill. 17 MR. MAYER: Tom, did you say you are located in 18 the Shift Supervisor's office? 19 MR. HEADMAN: Yes, I am. 20 MR. MAYER: Can you give me a run down of all the 21 folks that you can see in there? 22 MR. HEADMAN: That I can see into the control 23 room? 24 MR. MAYER: Without running around. List off all 25

the people that you can identify. Can you tell me who all 1 2 are there. 3 MR. HEADMAN: Okay. I can see the two NRC Residents, Charlie and I don't know the other person's name. 4 5 I can see the two NCOs, I can see the Shift 6 Supervisor, I can see the Senior --7 MR. MAYER: The NCOs are Romo and --MR. HEADMAN: Yes, Bob Romonowski and Bill Lyons. 8 MR. MAYER: Okay. 9 10 MR. HEADMAN: I can see Wayne Holmes, the Shift Supervisor. I can see the Senior Shift Supervisor. 11 12 MR. MAYER: Wertz? 13 MR. HEADMAN: Mike Wertz and Bob Olsen. And Sue Simpson, the STA. That is all I can see from here. 14 15 MR. MAYER: How about in the Senior's office? 16 MR. HEADMAN: In the Senior's office? Nobody is 17 in there right now. MR. MAYER: Nobody else in the Shift Supervisor's 18 19 office? 20 MR. HEADMAN: No, except for Secondary 21 Communicator, Dave Morris. 22 MR. MAYER: Okay. And you are the Primary 23 Communicator? MR. HEADMAN: Yes. Yes, I am, except we turned 24 over to the TSC but I am just here to maintain communication 25

with you.

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2 MR. MAYER: Okay, is the TSC in communication with 3 -- do you know if the TSC is in communications with NRC at 4 all?

5 MR. HEADMAN: I really can't tell you if they are 6 or not because I turned over my communication duties to the 7 Primary Communicator over there.

8 MR. MAYER: Okay. But Dave is still Secondary9 Communicator?

10 MR. HEADMAN: Yes -- no. He turned over his 11 duties as well. He is just here helping collect data, but 12 we both turned over our duties to the TSC.

13 [Pause.]

14 VOICE: The time is now 1610.

15 MR. MAYER: Tom, this is Bill Mayer.

16 MR. HEADMAN: Yes.

MR. MAYER: Do you have anything to tell me based
on what you are hearing or seeing or anything?

MR. HEADMAN: Can I tell you what?

20 MR. MAYER: Is there anything you can tell me 21 based on what you can hear or see?

22 MR. HEADMAN: No, I am just -- the same basic 23 thing, people in the control room. Same people. Other than 24 that, I am just getting information from everybody else to 25 you.



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[Pause.] 1 VOICE: [Inaudible.] 2 [Pause.] 3 VOICE: The time is now 1623. 4 [Pause.] 5 MR. MAYER: Tom Headman? 6 MR. HEADMAN: Yes, this is Tom. 7 This is Bill Mayer. Is there anybody MR. MAYER: 8 who can give me what came in, what the containment radiation 9 readings are, and also let me know if they have had to do 10 any pressure release or if they expect to have to do it. 11 MR. HEADMAN: Okay. You need containment 12 13 radiation? MR. MAYER: Levels. And what the status is of the 14 D2 container pressure. 15 I can't hear you on that last one. 16 MR. HEADMAN: MR. MAYER: I need to know whether or know they 17 have done any containment pressure, at least since the 18 event, or if they expect to have to. 19 MR. HEADMAN: Okay. I am going to put the phone 20 down and try to find out. 21 MR. MAYER: Okay. 22 [Pause.] 23 MR. OLSEN: Olsen. 24 MR. MAYER: Hey, Bill? 25

MR. OLSEN: Yes. 1 MR. MAYER: You got R11A? 2 MR. OLSEN: It is 160,000 caps. 3 MR. MAYER: Yes. 4 12A is 1,000, and 12B is 250. It MR. OLSEN: 5 looks like 11A is holding fairly steady there. 6 MR. MAYER: 250 on 12B? 7 MR. OLSEN: Excuse me? 8 12A, 1,000? MR. MAYER: 9 MR. OLSEN. Right. 10 12B, 250? MR. MAYER: 11 Right. We have no plans to do MR. OLSEN: 12 pressure release. 13 MR. MAYER: And no need to? 14 MR. OLSEN: No need to. We are getting ready to 15 cool the PRT down. They are looking at that now. 16 That will involve venting and filling MR. MAYER: 17 18 and draining? MR. OLSEN: Right. You know, lowering the 19 temperature should lower the airborne concern also. 20 MR. MAYER: And that will all go to waste gas, 21 22 right? MR. OLSEN: Which? 23 MR. MAYER: The PR [inaudible.] 24 MR. OLSEN: Venting it off as we cool it down? 25

MR. MAYER:

2 MR. OLSEN: Yes, except what is leaking out the 3 containment.

Yes.

4 MR. MAYER: Oh, that's right. You don't even have 5 the -- okay, so it would just be draining and filling then?

6 MR. OLSEN: Right, but that will cool it down, and 7 once we get it down in temperature, we should have less of a 8 release to the containment atmosphere and rad monitor should 9 start coming down too.

10MR. MAYER: Okay. Bob, I have one other question.11MR. OLSEN: Okay.

MR. MAYER: And it is something that Bill told me earlier. It was in regard to -- he was trying to explain why possibly the 11/12 167 didn't go close.

15 MR. OLSEN: Yes.

MR. MAYER: And he mentioned that 12 MS 171 was
bypassed through the leakage.

18 MR. OLSEN: Right.

MR. MAYER: I guess it was isolated?
MR. OLSEN: That's correct. I mean, they have the
168 that gives you the ability to select either both ports
or one of the ports.

23 MR. MAYER: Either port.

24 MR. OLSEN: Right.

25 MR. MAYER: So it was just going to the MS 169



1 then?

MR. OLSEN: Right, and that's the B train port. 2 Okay. We were wondering how can you 3 MR. MAYER: do that by taking one train away, but that is covered in the 4 tech specs, right? 5 6 MR. OLSEN: Right. 7 MR. MAYER: Which tech spec is that? I would have to take it out. I don't 8 MR. OLSEN: 9 have the number off the top of my head. 10 MR. MAYER: Yes, and I can't remember it; Joe can't remember it. 11 I can get it for you if you want it. 12 MR. OLSEN: Well, just in case somebody asked the 13 MR. MAYER: 14 question -- well, somebody else is asking the question, so 15 if they come back and want to know, it is something we can show them that explains why that was done. 16 MR. OLSEN: Well, tech specs gives you the ability 17 to isolate one of them. 18 MR. MAYER: Right. 19 20 MR. OLSEN: No actions, nothing. MR. MAYER: 21 Okay. 22 MR. OLSEN: You know? It is only when you have more than that that it would put in into a tech spec 23 24 concern. 25 MR. MAYER: Yes. You can do one port on one MS

167?

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MR. OLSEN: Let me get you the number. 2 MR. MAYER: Okay. 3 Hang on a minute. MR. OLSEN: 4 MR. MAYER: Appreciate it. 5 [Pause.] 6 MR. OLSEN: Bill? 7 MR. MAYER: Yes, Bob. 8

9 MR. OLSEN: It falls under the ESF Tech Spec, 10 which is 3321, okay? And under that tech spec it falls 11 under "Steam Mount Isolation Automatic Actuation Launching." 12 And the applicability under the number of channels is a two 13 triple star.

What the star tells you if at the actuation launch 14 it concludes the two redundant solenoid operated valves for 15 each main steam isolation valve and one vent valve on any 16 17 one main steam isolation valve may be isolated without affecting the function of the automatic logic provided, the 18 remaining seven solenoids vent valves then remain operable. 19 So having the one solenoid vent inoperable on the 20 one 167 still meets the required amount, which, you know, 21 keeps you from having to enter the text. 22 MR. MAYER: Anything else you can tell me about 23

24 what's going on?

25 MR. OLSEN: Right now?

1	MR. MAYER: Yes.
2	MR. OLSEN: Well, we are getting ready to
3	cooldown.
4	MR. MAYER: Okay.
5	MR. OLSEN: They are waiting to establish normal
6	pressurizing level, and they should be there right now.
7	They said 4:30. At which point they will exit DOPs, enter
8	the IOPs, and commence the cooldown.
9	MR. MAYER: And normal for no load is what?
10	MR. OLSEN: For which?
11	MR. MAYER: Pressurizer.
12	MR. OLSEN: 50 percent.
13	MR. MAYER: Oh, it is 50?
1.4	MR. OLSEN: Right.
15	MR. MAYER: All right. Did anybody do a post trip
16	review?
17	MR. OLSEN: It is being worked on. I haven't
18	completed it in any way.
19	MR. MAYER: I will reiterate what Bill had said to
20	me, and tell me if this is the correct way you know it or
21	anything else has come to light.
22	He said basically when they were coming down
23	were they planning did they take the whole the turbine
24	off the line?
25	MR. OLSEN: No, we were ready at that point.

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They were ready to take the turbine MR. MAYER: 1 off the line? 2 MR. OLSEN: Right. 3 But they were going to come all the MR. MAYER: 4 way down just because of the graph? 5 Yes, the graphs drove them down. MR. OLSEN: 6 MR. MAYER: So the vacuum was still going away? 7 Yes. MR. OLSEN: 8 Did they lose any circulators? MR. MAYER: 9 MR. OLSEN: Yes. 10 MR. MAYER: How many? 11 MR. OLSEN: Four of them. 12 MR. MAYER: Four out of six? 13 MR. OLSEN: Yes. 14 MR. MAYER: That's bad. 15 MR. OLSEN: We got it down to like 80, and it 16 looks like we are going to get one of them back. You know, 17 back pressure was about 3-1/2 so we were holding for a few 18 minutes, and then back pressure started to come up, so we 19 started to make the preps take the turbine off the line. 20 MR. MAYER: So what I understood from Bill is that 21 it came all the way down to about 7 percent power, then 22 there was a problem with the temperature being too low --23 Right. MR. OLSEN: 24 MR. MAYER: RCS temperature was too low. What was 25

that due to? Was that due to the fact that the dumps were 1 2 still going? MR. OLSEN: The dumps weren't going. 3 MR. MAYER: They weren't going? 4 MR. OLSEN: 5 No. 6 MR. MAYER: Okay, so the dumps were not steaming? MR. OLSEN: Right. 7 8 MR. MAYER: Were they in manual on feedwater? MR. OLSEN: No, feedwater was still on automatic, 9 I believe. 10 11 MR. MAYER: You were still on auto? All right, but temperature was low? 12 13 MR. OLSEN: Temperature was low. MR. MAYER: You said this was preliminary but they 14 15 may have tried to recover it by withdrawing rods? Yes, it is hard to tell. 16 MR. OLSEN: 17 MR. MAYER: And got up to the low power trip set point which immediately, when the trip breaker is open, 18 reset the high steam flow bistable down to their no load 19 values, which is 40 percent? 20 21 MR. OLSEN: Right. 22 MR. MAYER: And that occurred faster than steam 23 flow could come off? 24 MR. OLSEN: Oh, right, yes. You get that spike. 25 As soon as you trip you will get it. You know, the high

1 steam flow flips.

MR. MAYER: The high steam flow signal and low 2 temperature was already ir, so they got high steam flow but 3 low temp? 4 5 MR. OLSEN: Right. That took part of the SI? 6 MR. MAYER: 7 MR. OLSEN: Right. Anything else? 8 MR. MAYER: 9 MR. OLSEN: No, that is about it. MR. MAYER: All right. Thanks a lot. 10 MR. OLSEN: 11 Okay. You can put Tom back on. 12 MR. MAYER: 13 MR. OLSEN: I will. Yes, this is Tom. 14 MR. HEADMAN: 15 MR. MAYER: Hi, Tom. This is Bill. 16 MR. HEADMAN: How are you doing, Bill? MR. MAYER: All right. I am going to -- I will be 17 • on the line, but I will be trying to catch up on my logs 18 19 here at the Region, so you are good for a while. 20 [Pause.] The time is now 1636. 21 VOICE: 22 MR. OLSEN: Bill? 23 MR. MAYER: Yes, Bob. Here is an update for you. 24 MR. OLSEN: 1630 pressurizer was at 50 percent, pressurizer pressure controls 25

in automatic, maintained at NOP. We've exited all EOPs and 1 2 entered the IOP for cooldown. 3 We haven't [inaudible] cooldown, but we are in IOP 6. 4 Exited the EOPs. Bob, have you heard 5 MR. MAYER: 6 anything as to what they want to do with the alert? Are they going to keep it going for a while? 7 MR. OLSEN: No, to be honest with you. I think 8 9 they are going to keep us in alert until Mode 4. That is the last I heard. 10 11 MR. MAYER: Do you know who that --We will keep the TSC activated and 12 MR. OLSEN: manned until we get to Mode 5. I think that is what the 13 plan is. 14 MR. MAYER: Mode 4 with 100 degree cooldown would 15 16 be what? That would be --MR. OLSEN: I don't think they are coming down that 17 18 quick. MR. MAYER: 19 Well --I think their plans to cooldown at 20 MR. OLSEN: 21 like 25 degrees an hour. Nice and slow. 22 MR. MAYER: Be like a four hour -- we are still at 547, right? 23 24 MR. OLSEN: Yes. So you are looking at about an eight-hour cooldown. 25

1 MR. MAYER: Eight-hour cooldown? 2 MR. OLSEN: Yes. 3 MR. MAYER: And alert until then? 4 MR. OLSEN: Right. 5 MR. MAYER: Okay. MR. OLSEN: If I hear anything different I will 6 7 let you know. 8 MR. MAYER: Appreciate it. 9 MR. OLSEN: Sure. 10 MR. MAYER: Thanks a lot. This is Tom. 11 MR. HEADMAN: 12 MR. MAYER: Hey, Tom. Bill. [Pause.] 13 14 VOICE: The time is now 1648. 15 MR. MAYER: Tom? 16 MR. HEADMAN: Yes, Bill. MR. MAYER: Can I talk to somebody or find out 17 18 from somebody if during the load decrease, initial load 19 decrease that started all this, if there was any emergency boration [inaudible.] 20 21 MR. HEADMAN: Bill, I am having problems hearing 22 you. 23 MR. MAYER: Okay. I need to know if there was an 24 emergency boration performed during the initial load 25 increase --

MR. HEADMAN: Okay. 1 MR. MAYER: -- in response to the grass intrusion. 2 MR. HEADMAN: Okay. I will put the phone down and 3 I will be back. 4 MR. MAYER: Thank you. 5 [Pause.] 6 MR. HEADMAN: Bill? 7 MR. MAYER: Yes, Tom. 8 MR. HEADMAN: Bob Olsen just told me there was no 9 emergency boration during the power reduction. 10 MR. MAYER: Okay, thank you. 11 MR. HEADMAN: Okay? 12 MR. MAYER: All right. Thanks. 13 [Pause.] 14 VOICE: The time is now 1717. 15 MR. OLSEN: Hey Bill? 16 MR. DEANTONIO: Bill's off. Joe DeAntonio is 17 back. 18 MR. OLSEN: Joe, it is Bob Olsen. 19 MR. DeANTONIO: Hey, Bob. 20 MR. OLSEN: We started the cooldown, 1715. 21 MR. DeANTONIO: Yes? 22 MR. OLSEN: Yes. 23 MR. DEANTONIO: So you are cooling down at 25 24 degrees an hour? 25

MR. OLSEN: For right now, yes. We want to make 1 sure it is comfortable. 2 That's good. MR. DeANTONIO: 3 MR. OLSEN: Okay, I'm going to put Tom back on. 4 That's fine. MR. DEANTONIO: 5 MR. OLSEN: All right. 6 MR. DeANTONIO: That's fine. 7 MR. HEADMAN: This is Tom. 8 MR. DeANTONIO: Hi, Tom. I'm sorry. I'll give 9 the phone back to Bill. 10 MR. MAYER: Bill Mayer back on the line, Tom. 11 MR. HEADMAN: Okay, Bill. 12 MR. MAYER: What is your impression of what is 13 going on in there? Is there activity or very low activity. 14 MR. HEADMAN: Very low. Everything seems calm and 15 going smooth from what I can see from here. 16 MR. MAYER: Where are you situated in the Shift 17 Supervisor's office? Do they still have the desks facing 18 each other? 19 MR. HEADMAN: Yes, they do, and I am actually 20 behind the -- the phones. They moved the phones. They are 21 actually behind the NE 2 Shift Supervisor's desk, back in a 22 23 little cubbyhole. MR. MAYER: Okay. 24 MR. HEADMAN: And I am looking diagonally into the 25

control room. Some walls are blocking me, so I can't see 1 2 everything. MR. MAYER: Have they relieved the watch or is 3 that not until 7:00? 4 5 MR. HEADMAN: 7:00. [Pause.] 6 VOICE: The time is now 1721. 7 [Pause.] 8 Tom, this is Bill Mayer. MR. MAYER: 9 MR. HEALMAN: Yes, Bill. .10 MR. MAYER: Could you get Bob Olsen or somebody 11 else with his license to --12 MR. HEADMAN: You need Bob Olsen? 13 MR. MAYER: Bob or anybody --14 MR. HEADMAN: Okay. 15 MR. MAYER: -- on the --16 MR. HEADMAN: Just a second. 17 [Pause.] 18 MR. MAYER: Bob in? 19 MR. HEADMAN: Yes, he is almost finished up a call 20 right now. He will be with you in a couple of minutes, a 21 couple of seconds. 22 23 [Pause.] MR. OLSEN: Hey, Bill. 24 MR. MAYER: Hey, Bob. We have a problem we need 25

to resolve. We have ERDS here at the Region. It is our 1 2 equivalent of SPDS. MR. OLSEN: Excuse me? 3 4 MR. MAYER: We have a computer system here called It is sort of like SPDS, and it is showing our 44A to 5 ERDS. 6 be reading 961 milirems per hour. 7 MR. OLSEN: 961 milirem per hour? 8 MR. MAYER: Yes. 9 MR. OLSEN: 44A? ...10 MR. MAYER: 44A. 11 MR. OLSEN: How about B? MR. MAYER: I don't think he has it. Maybe we 12 just get the one channel. 13 MR. OLSEN: That's possible. 14 I was wondering if you could --15 MR. MAYER: MR. OLSEN: Yes, let me go check right now. 16 17 MR. MAYER: Our 44A and 44B, and then you can give 18 me an update on 11A, 12A, 12B. 19 MR. OLSEN: Sure. 20 MR. MAYER: Appreciate it. 21 MR. OLSEN: No problem. 22 [Pause.] MR. HEADMAN: Bill, this is Tom Headman. 23 24 [Pause.] MR. OLSEN: Bill? 25

1 MR. MAYER: Yes, Bob. 2 MR. OLSEN: 44A and 44B indicate -- well, the 3 lowest reading on them is an R an hour. MR. MAYER: 4 Okay. 5 MR. OLSEN: So what you are reading is zero, 6 essentially, on the 44. 7 MR. MAYER: Because they go up to what, 10 to the 8 7? 9 MR. OLSEN: Right. MR. MAYER: R per hour? .10 11 MR. OLSEN: So .9 whatever, 1 R is the zero point 12 on them. 13 MR. MAYER: Okay. 14 MR. OLSEN: Our 11A is 120,000 now. 15 MR. MAYER: 20K, coming down then? 16 MR. OLSEN: Yes. I am told they are still at a K. 17 MR. MAYER: Okay. 12B is at 250. 18 MR. OLSEN: 19 MR. MAYER: 250. 20 MR. OLSEN: PRT temperature is down around say 200 21 now. PRT is in 200? 22 MR. MAYER: 23 MR. OLSEN: Yes. 24 MR. MAYER: 12A or 12B, are either of them in 25 alarm?
MR. OLSEN: No. 1 And did anybody -- I guess Chemistry MR. MAYER: 2 must have done that iodine sample. Have they? 3 Yes, I'm sure they have. MR. OLSEN: 4 Anything get to the control room? 5 MR. MAYER: You mean in the control room? MR. OLSEN: 6 Any results get to the control room. MR. MAYER: 7 MR. OLSEN: Oh, let me find out. Hang on. 8 [Pause.] 9 Bill? Bill? MR. OLSEN: 10 MR. MAYER: Yes. 11 They drew this sample at 1400. We are MR. OLSEN: 12 going to check right now to see if we have gotten any 13 results yet. It takes a while, you see, to get the results 14 back on them. 15 Were 12A or 12B in alarm? Okay. MR. MAYER: 16 MR. OLSEN: No. 17 Okay, good. So 11A still is? MR. MAYER: 18 MR. OLSEN: Yes. 19 Okay. MR. MAYER: 20 I will let you know as soon I got 21 MR. OLSEN: anything on the iodine. 22 What have they got you doing besides MR. MAYER: 23 talking to me? 24 MR. OLSEN: Watching Unit 2, helping on Unit 1. 25

MR. MAYER: Okay. 1 MR. OLSEN: Yes. 2 MR. MAYER: Who is the other shift supervisor, 3 Sue? 4 MR. OLSEN: Sue Simpson was working control 5 center. 6 MR. MAYER: She was out there working? 7 MR. OLSEN: Yes. Pete Jones was on Unit 2. Wayne 8 Holmes is the Shift Supervisor on Unit 1, and then Mike 9 Wertz was the Senior. 10 MR. MAYER: And everybody is on 12-hour shifts 11 now, right? 12 MR. OLSEN: Yes. Yes. 13 MR. MAYER: No relief in sight? 14 MR. OLSEN: I don't know. There's suppose to be 15 another vote here shortly. 16 Except for you, right? 17 MR. MAYER: MR. OLSEN: Yes. I'm on days, which could turn 18 into longer than 12 hours in some cases. 19 Is that permanent for you or is that MR. MAYER: 20 just a rotational thing? 21 It is suppose to be rotational for MR. OLSEN: 22 now, like two years. 23 MR. MAYER: Wow, long rotation. 24 MR. OLSEN: Yes. It is pretty good though. You 25

know, we're unitizing. 1 2 MR. MAYER: No, I didn't know that. MR. OLSEN: Yes. 3 4 MR. MAYER: Is that partially accomplished? 5 MR. OLSEN: Well, people are being put in positions. There is still a lot of hiring going on for, 6 like, DOG seniors and everything and shift supervisors, part 7 of the NEOs we're getting. 8 Brian O'Grady is the Unit 1 Operating Engineer, 9 10 and I work with him. And then on Unit 2, Pete Ott is the Unit 2 11 Operations Engineer, and Joe Serwin works with him. 12 MR. MAYER: 13 Okay. MR. OLSEN: We're making changes. Planning, they 14 are starting to split out. That should happen, like, next 15 week or, I think, the week after. The same thing with 16 Maintenance and IMC. 17 18 I think it is good. I think it will give us a chance to focus a little bit more. 19 20 MR. MAYER: So you are like the dual Senior? MR. OLSEN: Huh? 21 You are watching Unit 2 right now and 22 MR. MAYER: just running around? 23 MR. OLSEN: I am just helping Mike, really. 24 Yes. MR. MAYER: Do you they have any other horsepower 25

there in the control room besides the regular shift? 1 MR. OLSEN: What do you mean? 2 MR. MAYER: Like Gitatmo or --3 MR. OLSEN: Oh, Lee C. is MC Coordinator, so he is 4 over at TSC. 5 MR. MAYER: Okay. 6 MR. OLSEN: And Pete Ott's TSS, so he is over 7 there also right now. 8 MR. MAYER: But nobody else is directly inside the 9 control room? 10 MR. OLSEN: Not right this minute. No, they have 11 been in and out. 12 MR. MAYER: Is [inaudible] still in? 13 MR. OLSEN: Huh? 14 MR. MAYER: Resident still there? 15 MR. OLSEN: Yes. 16 MR. MAYER: All right. Thanks for the update. 17 MR. OLSEN: Sure. Let me know if you need 18 anything. 19 MR. MAYER: If you do hear anything about the 20 iodine, let us know please. 21 MR. OLSEN: Yes, certainly will. 22 MR. MAYER: And there is still no indications of a 23 need to do a pressure release, is that correct? 24 MR. OLSEN: No, pressure is fine. 25

MR. MAYER: Good. All right. Thanks a lot. 1 MR. OLSEN: Okay. 2 MR. HEADMAN: Bill, Tom is back on. 3 Okay, Tom. Thanks. MR. MAYER: 4 [Pause.] 5 The time is now 1750. VOICE: 6 MR. WERTZ: Bill Mayer? 7 MR. MAYER: Yes, Bill Mayer. Mike Wertz? 8 MR. WERTZ: Mike Wertz. How you doing? 9 MR. MAYER: All right. How are you? 10 Congratulations. 11 MR. WERTZ: Could be better. Congratulations for 12 what? 13 On making the news, I guess. MR. MAYER: 14 MR. WERTZ: Oh. 15 MR. MAYER: How you doing? 16 MR. WERTZ: All right. 17 MR. MAYER: You have anything to tell me? 18 MR. WERTZ: No, just wanted to see how you are 19 doing, see if you had any specific questions. 20 MR. MAYER: Let's see. Hold on. Let me poll the 21 room here and see if anybody -- Joe DeAntonio is here 22 standing in front of me. 23 MR. WERTZ: Is that right? 24 MR. MAYER: Yes. We kind of got drafted back into 25

1 our previous lives.

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MR. WERTZ: Yes.

3 MR. MAYER: It was slow shaking out the cobwebs 4 out.

5 MR. WERTZ: It is all coming back now? Glad 6 you're there right?

7 MR. MAYER: Let's see. Anybody got any questions? 8 [Pause.]

9 MR. MAYER: So you guys are holding down, what is 10 it, 25 degrees an hour?

11 MR. WERTZ: Well, right now we are about 30 12 degrees an hour, and we are increasing a little bit. I 13 would like to get up to close to 50 degrees an hour.

14I wanted to ease -- get into it at 25 degrees an15hour. We are just going to slowly kick it up a little bit.16MR. MAYER: Mike, they want to know what the17temperature is.

18MR. WERTZ: Temperature. I don't know. About19520.

20 MR. MAYER: 520.

21 MR. WERTZ: Hey, Bob, get the RCS temperature for 22 me.

I will get it looked at a little bit.
MR. MAYER: Any information about the initial
events, or have you not been bother with that, you've been

pretty much --

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2 MR. WERTZ: I've been trying to think through it, 3 but I think until we look at the second by second to see 4 exactly what happened.

5 MR. MAYER: Can you tell me if the steam dumps, 6 were they dumping at the time of the trip?

MR. WERTZ: We did see steamed up action. I
didn't. The Shift Supervisor saw one of the TB 10s open.
MR. MAYER: Okay.

10 MR. WERTZ: So we possibly could have lost one of 11 those when the temperature came back real hard. That could 12 have been part of that, the temperature return.

MR. MAYER: And I heard from Bob the preliminary -- he stressed the word "preliminary" -- explanation of how temperature came back, and that was that they were using rods because they got down too low.

MR. WERTZ: Right. We were pulling rods. Through the initial load drop, circulators gone away, rods were manual. We didn't have automatic rod control, and they were driving rods and temperature did get low.

It got less than 543. He was pulling rods to reach store temperature, and that is when we got the trip.

Looking at the temperature recorder, we see where temperature went out high as we were doing the load drop, and then it went low, at least 5 degrees low, lower than T

av, and then it pegged high again 1 2 MR. MAYER: And that was? MR. WERTZ: And that was the trip. That's when he 3 was pulling rods. I don't know if at that time we also lost 4 our last steam dump or not. 5 6 MR. MAYER: Yes. 7 MR. WERTZ: That could be. That the piece that --8 MR. MAYER: We are still on the line, right? 9 MR. WERTZ: Yes. We were on the line. We were 10 about 100 megawatts at the OX power transformer swapped over. We were just getting ready to stabilize right there 11 and trip the turbine, and that is when the reactor tripped. 12 13 MR. MAYER: Okay. So with that much load on the turbine, you probably did have a steam dump go after the 14 15 turbine trip? 16 MR. WERTZ: Probably not much because we didn't even have low load steam generator levels come in. 17 18 MR. MAYER: Phil O'Donald was telling me his interpretation or what he understood was that once the 19 20 reactor trip breaker is open, the set point for the high steam flow is immediately reset down to the 40 percent 21 22 level. MR. WERTZ: Right. 23 And there was -- with that happening, 24 MR. MAYER:

you get a little bit of flip, you get a little flip on the

25

1 bi-stables.

2 MR. WERTZ: Right. And with the load temperature already 3 MR. MAYER: 4 locked in, that's what gave the low T av plus high steam Is that accurate? 5 flow. That's true, but we were already at 6 MR. WERTZ: real low power so set point was already just about down 7 there because the turbine load was minimal, and that comes 8 9 off of PT 505 and 506. 10 MR. MAYER: That's right, yes. 11 MR. WERTZ: So that set point was already low. 12 The trip lowering the set point probably really didn't lower 13 it all that much, but the T av bi-stables were in, and any kind of steam flow spike in that situation would give you 14 the SI. 15 MR. MAYER: With the turbine tripping --16 MR. WERTZ: Even the 10 popping, the dumps 17 18 popping, any of those. MR. MAYER: Mike? 19 20 MR. WERTZ: Yes. 21 MR. MAYER: Our public affairs people need to ask a question. Which unit had the turbine fire a couple of 22 years ago. 23 24 MR. WERTZ: The generator event? 25 MR. MAYER: Was that the turbine --

1 MR. WERTZ: Los Bladem? 2 MR. MAYER: Y MR. WERTZ: That was Unit 2. 3 4 MR. MAYER: Two right? 5 MR. WERTZ: Yes, Unit 2. Okay. So you are on the hook until MR. MAYER: 6 7 7:00, right? 8 MR. WERTZ: Yes. 9 Actually, your relief should be in by MR. MAYER: 10 now, right? 11 MR. WERTZ: 6:30. 12 MR. MAYER: 6:30? MR. WERTZ: Unless he is watching television, he 13 probably won't come in. 14 MR. MAYER: Okay. Anything else? 15 16 Oh, my question to Bob a couple of times, I am sure you heard him mentioning it, was about rad levels, 17 R11A, 12A, 12B. I guess 11A is still in alarm? 18 19 MR. WERTZ: Alarm is reading 125K right now. It was a maximum 150K, but it is coming down. 20 MR. MAYER: And I had asked Bob about pressure 21 release, whether there was a need to do that because if 22 something like that happened, people would want to know if 23 there were any releases made. 24 MR. WERTZ: Right. 25

1 MR. MAYER: But he says that you guys have the 2 pressure under control? 3 MR. WERTZ: Yes, it looks fine. 4 MR. MAYER: And the other question I had for Bob 5 was if any of the iodine came in for the RCS iodine samples 6 two to six hours after the trip sample --7 MR. WERTZ: Right. 8 MR. MAYER: -- had come in yet. 9 MR. WERTZ: Yes, we have those. I don't have the 10 number here. I will have them given to you. 11 They were in the even -2 range, so it was -- we had been running the E -3. 12 MR. MAYER: That's dose? 13 MR. WERTZ: It's about a factor -- yes, dose 14 15 [inaudible] iodine, a factor of 10 higher, but that's not 16 abnormal for a reactor trip, post reactor trip sample. 17 MR. MAYER: Okay. All right. 18 MR. WERTZ: Okay? I better get back in there. 19 I've got to talk to the EDO. He's calling. MR. MAYER: All right. Have any containment 20 entries been made? 21 22 MR. WERTZ: No. 23 MR. MAYER: On hold? MR. WERTZ: 24 Right. 25 MR. MAYER: Okay. Thanks a lot, Mike.

1 MR. WERTZ: Okay? All right. Bye-bye. 2 MR. MAYER: MR. WERTZ: Take care. Nice talking to you. 3 4 MR. MAYER: You too. 5 MR. HEADMAN: Yes, Bill. Jeff Herman [inaudible.] MR. MAYER: Hi, Jeff. I will be going off the 6 7 line here for a second, but I am still listening for you, okay? 8 9 MR. HERMAN: All right, thanks. MR. MAYER: If you have anything important, just 10 11 yell, and I will be here. 12 MR. HERMAN: Yes, thanks. 13 [Pause.] VOICE: The time is now 1800. 14 MR. HEADMAN: Bill, you there? 15 16 MR. MAYER: Yes. MR. HEADMAN: Charlie and Marshall, said that he's 17 18 talking to the Regional Office and he says there is no reason to keep this line open anymore. 19 20 MR. MAYER: Okay. Let me just speak to one of the 21 guys. 22 MR. HEADMAN: Sure. I'll get you somebody. Hold 23 on. MR. MARSHALL: Hi, this is Charlie Marshall. 24 25 MR. MAYER: Hi, Charlie. Bill Mayer.

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MR. MARSHALL: Hi.

MR. MAYER: Hi, how are you doing.

3 MR. MARSHALL: Fine. I was just talking to Ed.
4 We've got two lines open here.

5 MR. MAYER: Yes. I was just bugging the control 6 room operators from time to time with technical questions. 7 I guess it is easier for us to bug you, huh?

8 MR. MARSHALL: If that's what Ed wants to do. We 9 are going to be here anyway.

10 MR. MAYER: I was asking if there was a need for 11 us to jump on the NS with the TSC. Set up a bridge with 12 them.

13 MR. MARSHALL: At this point --

14 MR. MAYER: They probably wouldn't know anything15 anyway.

16 MR. MARSHALL: Yes, the best information at this 17 point is here, and there really isn't much going on.

18 They're doing a cooldown, you know.

MR. MAYER: Yes, it is pretty much put to be asfar as the control room.

21 MR. MARSHALL: Right.

22 MR. MAYER: Yes.

23 MR. MARSHALL: So.

24 MR. MAYER: Okay.

25 MR. MARSHALL: So I am going to go ahead and tell



1 this guy he can secure from this position, all right? 2 MR. MAYER: Okay, and I will secure from here. 3 MR. MARSHALL: All right, Bill. Thanks. MR. MAYER: All right. 4 5 [Pause.] VOICE: The time for the next conversation is 6 7 2031. 8 MR. GOULD: NRC. This is a recorded line. 9 MR. GIGGETTS: This is Bill Giggetts, Communicator 10 in the Technical Support Center at Salem Generating Station. MR. GOULD: Yes. 11 12 MR. GIGGETTS: This is to notify you that as of 2020 hours on 4/7/94 the alert has been terminated. 13 MR. GOULD: Okay. 2020 hours alert terminated. 14 15 MR. GIGGETTS: That's correct. MR. GOULD: And the reason? 16 MR. GIGGETTS: The reason being that the plant is 17 18 -- I should get an official statement -- but the plant is in 19 the cooldown status. They have control of the plant. They have a bubble in the pressurizer and they have established a 20 21 cooldown rate to go to Mode 5. 22 MR. GOULD: What mode are you in at this time? 23 MR. GIGGETTS: Hold on two seconds. I don't have 24 that. MR. GOULD: Okay. 25

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1 [Pause.] MR. GIGGETTS: Hello? 2 MR. GOULD: Yes. 3 MR. GIGGETTS: Yes, I have the operations engineer 4 Pete Ott is his name. 5 here. MR. GOULD: What was your name again? 6 7 MR. GIGGETTS: Pete Ott. MR. GOULD: No, your name. 8 MR. GIGGETTS: My name is Bill Giggetts, G-i-g-g-9 e-t-t-s. 10 MR. GOULD: G-i-q-q-e-t-t-s. 11 MR. GIGGETTS: That's correct. 12 MR. GOULD: Okay. 13 MR. GIGGETTS: Here is Pete Ott. 14 MR. GOULD: Okay. 15 MR. OTT: Hell, how are you doing? This is Pete 16 17 ott. MR. GOULD: Okay. I wanted to find out the status 18 of the plant at this time, what mode it is in, and the 19 reason for your terminating the alert. 20 Okay. WE are basically terminating the 21 MR. OTT: alert based on the fact that we have a cooldown in progress, 22 and everything is functioning properly. 23 We are in what we call our integrated operating 24 procedure, which is the normal operating procedure for 25

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1 preceding to cold shutdown.

We are presently still in hot standby, which is our Mode 3.

MR. GOULD: Still in hot standby?

5 MR. OTT: Right. We are cooling down. Present 6 temperature approximately 483 degrees.

MR. GOULD: 483.

8 MR. OTT: RCS pressure is 1500 pounds. Both of 9 those as we cooldown, and we are cooling down at a rate of 10 about 25 to 30 degrees an hour.

11 MR. GOULD: Per hour?

12 MR. OTT: Right.

13 MR. GOULD: Okay.

MR. OTT: And we expect around midnight to be in Mode 4. I got the approximate time, but it to be in Mode 4, which we consider hot shutdown, and that's less than 350 degrees.

Once we reach that, we will continue on down, and within 24 hours be in cold shutdown, which is less than 200 degrees.

21 MR. GOULD: Okay.

MR. OTT: Essentially, we will be in the same procedure throughout that. We clock in and we call it an IOP 6, which is our integrating operating procedure, to take us to cold shutdown.



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MR. GOULD: Okay. You've exited the alert. 1 What 2 about the unusual event, are you still in that or has that 3 been exited too? 4 My belief is that we are still in what MR. OTT: 5 we consider -- I'll tell you what, let me make sure from an official standpoint, let me check the EDO. 6 7 Basically, we are getting to a standpoint where we 8 are going to have an engineering staff at our TSC, but it is really just for our own support. 9 10 Hold on one second. 11 MR. GOULD: Okay. 12 MR. GIGGETTS: Yes, this is Bill Giggetts back on the line. Could I have your name while he is gathering that 13 information? 14 15 MR. GOULD: Yes, my name is Gould, G-o-u-l-d. MR. GIGGETTS: G-o-u-l-d. Okay, thank you. Here 16 17 is Pete Ott back. MR. OTT: I just wanted to clarify how we were 18 declaring it from an emergency preparedness point. 19 20 We are terminating the events. We are out of the 21 emergency completely. 22 MR. GOULD: Okay. So then I'll use the terminated 23 2. 24 MR. OTT: Right. 25 MR. GOULD: At the same time?

MR. OTT: Right.

2 MR. GOULD: And our Residents are aware of that? 3 MR. OTT: Right. The Residents are aware and, 4 again, I think they are staying on also.

5 MR. GOULD: You are still keeping staff there in 6 your center?

7 MR. OTT: Right. Just basically an engineering 8 staff and basically it is a lot of review of the data and 9 things of that nature from previous events, putting together 10 all of our, what we call our post-trip review, and all of 11 that. 12 MR. GOULD: They will be there until you get to

12 MR. GOULD: They will be there until you get to 13 cold shutdown?

MR. OTT: Probably. Basically through the night, and in the morning we will have -- we have basically a relief crew coming on.

MR. GOULD: Okay. Is that about it?
MR. OTT: Yes.

19 MR. GOULD: Okay then.

20 MR. OTT: All righty.

21 MR. GOULD: Good-bye.

22 MR. OTT: Thank you then. Bye.

23 [End of tape.]

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