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The above-styled cause came on for hearing on this the 20th day of September, 2017, before the Board of Boiler Rules of Tennessee Department of Labor and Workforce Development, at 220 French Landing Drive, P.E.A.R.L Room, 1st Floor, Nashville, Tennessee, when and where the following proceedings were had, to wit:

A P P E A R A N C E S

1. Sammy G. Siz, State of Tennessee
2. Thomas E. Spangler, State of Tennessee
3. Danny Peters, State of Tennessee
4. Chris Hay, BASF
5. Brittany Davis, BASF
6. Larry Riner, Travelers
7. David Parham, Travelers
8. Richard Goldsmith, Sunbelt Marketing
9. John Wood, Sunbelt Marketing
10. Jim Vaughan, Holston Mills
11. Louis Lampson, Ergon Terminaling, Inc.
12. Josh Pasternak, Ergon Terminaling, Inc.
13. Marc Lauterhale, Ergon Terminaling, Inc.
14. Steve Clark, Ergon Terminaling, Inc.
15. David Ogletree, Ergon Terminaling, Inc.
16. James Golden, Stonecrest Medical Center
17. Eric Wain, Fresenius Medical Care
18. Douglas Mayhew, Fresenius Medical Care
19. Benjamin Manuel, Fresenius Medical Care
20. Derrick Mummert, Milan General Hospital
21. James Neville, Neville Engineering
22. Robyn Scall, Rinnai America Corporation
23. Kelsey Dormagh, Rinnai America Corporation
24. Jason Siler, Rinnai America Corporation
25. Richard Eng, Wacker Chemical

The present case is between the above-named parties, including the State of Tennessee Department of Labor and Workforce Development, as well as various representatives from different companies and organizations. The proceedings took place on September 20, 2017, at the Board of Boiler Rules.
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2. **PROCEEDINGS**

3. MR. PISCHKE: Let's call the meeting to order of the Tennessee Board of Boiler Rules.

4. Let's start off with some announcements and introductions.

5. As far as announcements, safety first. In the event of an emergency or a natural disaster, security personnel will take all of the attendees to a safe place in the building or direct them to exit the building on the Rosa Parks side, which I believe is this side?

6. MR. CHAPMAN: Yes.

7. MR. PISCHKE: Okay. Okay. We'll start with some introductions. My name is Mike Pishke. I'm a board member and taking the place of Brian Morelock who is out sick today.

8. MR. BAUGHMAN: I'm Dave Baughman.


10. MR. FOX: Terry Fox, board member.

11. MR. CHAPMAN: Sam Chapman, Chief Inspector.

12. MS. BENNETT: Carlene Bennett, board secretary.


15. MR. PISCHKE: I would like to welcome our new members, Terry Fox and Harold Bowers.

16. MR. FOX: Thank you.

17. MR. PISCHKE: This is their first meeting.

18. Other announcements, Dr. Keith Hargrove was unable to make the meeting, as well. We definitely miss both Brian and Keith.

19. The next item of the agenda is the adoption of the agenda. I'll entertain a motion to adopt the agenda.

20. MR. BAUGHMAN: So moved.

21. MR. PISCHKE: Do I have a second?

22. MR. BOWERS: Second.

23. MR. PISCHKE: All those in favor, say, "aye."


25. MR. BOWERS: Aye.

1. MR. PISCHKE: Opposed?
2. (Whereupon a discussion was whispered.)
3. MR. PISCHKE: Okay. I'm sorry. I overlooked the introductions of the audience. Can we begin to the right here and -- yeah.
4. MR. HAYS: I'm Chris Hays, engineering specialist with BASF Corporation.
5. MS. DAVIS: I'm Brittany Davis, process engineer at BASF.
6. MR. RITTER: Larry Ritter, Travelers.
7. MR. PARHAM: Dave Parham, Travelers.
10. MR. VAUGHN: I'm Jim Vaughn. I'm a mechanical engineer with Holliston Mills.
11. MR. DICKERSON: Richard Dickerson, State of Tennessee, boiler inspector.
12. MR. O'GUIN: Chris O'Guin, State of Tennessee, boiler inspector.
13. MR. SMITH: Jesse Smith, State of Tennessee, boiler inspector.
15. MR. PASTOREK: Joel Pastorek, Ergon Terminaling.
16. MR. LAUDERDALE: Marc Lauderdale, Ergon.
17. MR. O'GUIN: Chris O'Guin, State of Tennessee, boiler inspector.
18. MR. CLARK: Steve Clark, Ergon Terminaling.
19. MR. LAUDERDALE: Marc Lauderdale, Ergon.
20. MR. O'GUIN: Chris O'Guin, State of Tennessee, boiler inspector.
21. MR. CLARK: Steve Clark, Ergon Terminaling.
22. MR. O'GUIN: Chris O'Guin, State of Tennessee, boiler inspector.
23. MR. CLARK: Steve Clark, Ergon Terminaling.

1. Tennessee, boiler inspector.
2. MR. LAMPTON: Louis Lampton, Ergon Terminaling.
3. MR. PASTOREK: Joel Pastorek, Ergon Terminaling.
4. MR. LAUDERDALE: Marc Lauderdale, Ergon.
5. MR. CLARK: Steve Clark, Ergon Terminaling.
6. MR. O'GUIN: Chris O'Guin, State of Tennessee, boiler inspector.
8. MR. PETERS: Danny Peters, boiler inspector, Knoxville office.
9. MR. GOLDEN: James Golden, Stonecrest Medical Center, facility manager.
10. MR. WATTS: Eric Watts, facilities maintenance manager in Fresenius Medical Care.
11. MR. MAYHEW: Douglas Mayhew, Fresenius Medical Care and maintenance manager.
12. MR. MANUEL: Ben Manuel, Fresenius Medical Care.
13. MR. MUMMERT: I'm Derrick Mummert, Milan General Hospital, maintenance manager.
14. MR. BAUGHMAN: So moved.
15. MR. PISCHKE: Second?
17. MR. BOWERS: Aye.
18. MR. PISCHKE: Opposed? Not voting?
19. Motion carries. Next item is Chief Boiler Inspector's report. Mr. Chapman?
20. MR. CHAPMAN: Thank you. Total numbers of inspections was 2,352 from the state inspectors. From the insurance inspectors -- oh, thank you -- 6,623, giving us a total of 8,975.
1. Total number of delinquent number of vessels is 68,940. Out of that, 1,119 state inspectors. Insurance inspectors is 470, giving us a total of delinquent, 1,589.
2. Number of code violations found were 30. Violation -- uncorrected violations are nine. Variance inspectors performed will be provided by the assistant chief (verbatim). We -- the National -- administered three National Board examinations on September the -- September the 6th. I know I'm not getting anything right. September the 6th. That is the Chief Report.
3. MR. PISCHKE: Thank you. The next item is the Assistant Chief Boiler Inspector's Report.
4. MR. ROBINSON: First of all, I'll take a moment and we want to recognize the three new deputy inspectors. I'm going to ask that you stand so people can get to see your face. We only have three -- we have four. The fourth one is due to take the examination at the end of next week. He's at the National Board right now, and these three gentlemen, they really dogged the test, and I know I'm going to put a little ad-lib into the notes and I'm sorry, but they really dug deep to find code.

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1. The locations: Sumner Regional, Pillsbury, Yoplait, Country Delight, McKendree Village. Tri Star was rejected based on training and lack of E-stops. That's all.
2. MR. PISCHKE: Does that conclude your report? Thank you very much. The next item of business is Old Business. The Item 17-06 -- I don't believe we received handouts for this item. Is --
3. MR. ROBINSON: The -- LaFollette Medical Center had an admission to come to the meeting and they were offered a seat, and I think that they decided not to (verbatim). So --
4. MR. PISCHKE: Okay.
5. MR. ROBINSON: We had postponed it last meeting, and unfortunately, I think that perhaps the Board may want to consider just removing it after you take a vote for non-attendance, for non-representation.
6. MR. PISCHKE: I don't know. How does the committee feel about the -- do we table it for one more meeting or --
7. MR. BAUGHMAN: Is there a protocol for that?
8. MR. PISCHKE: Okay. That's all.
9. MR. PISCHKE: That's -- Mr. Bailey?
10. MR. BAILEY: Can you remove -- yes.

---

1. questions. Chief and I were very proud of them.
2. MR. CHAPMAN: Yes.
3. MR. ROBINSON: State your name, sir.
4. MR. O'GUIN: Chris O'Guin.
5. MR. ROBINSON: Where are you -- give me your location.
6. MR. O'GUIN: Davidson County.
7. MR. GAFFORD: Michael Gafford, Memphis.
8. MR. NEUMANN: Mark Neumann, East Tennessee.
9. (Applause.)
10. MR. ROBINSON: Thank you. As of today, a variance update, we have 116 known variances out in the state of Tennessee. Forty-five or thirty-nine percent of those variances require a follow-up inspection. And 44 or 38 percent, they have been verified and approved, so they're actually operable.
11. We've got two -- or two percent requiring reinspeesion. And we've got 25 or 22 percent no longer utilizing the variances, or the boilers are placed in dormancy. This quarter, we've completed six variance audits with five approved and one requiring follow-up inspection.

---

1. Sure.
2. MS. JEFFERSON: So the item can be removed from the agenda without voting.
3. MR. PISCHKE: Okay.
4. MS. JEFFERSON: Without voting on it.
5. MR. PISCHKE: Okay. So I guess we'll remove this item from the agenda.
6. MR. ROBINSON: Very well.
7. MR. PISCHKE: Okay. This leads us to New Business. Item 17-11. And before we start, I'd like to ask if anyone has any conflict with this item?
8. MR. BOWERS: I do.
9. MR. PISCHKE: You do. So --
10. MR. BAILEY: All right. Just state what the conflict is.
11. MR. BOWERS: My insurance company, we insure this location.
12. MR. BAILEY: All right. Your discussion would be to limit it to anything that doesn't involve -- I'm sorry. Any discussion you would have, would have to be limited to -- I really don't know how this is going to be limited, to be honest with you, if you're insuring them.
13. Well, there is a conflict of...
1. interest, but the -- I think if it’s a financial
2. interest, you’re probably not going to be able to
3. partake in the discussion at all.
4. MR. BOWERS: Okay.
5. MR. BAILEY: Or the vote.
6. MR. BOWERS: Okay.
7. MR. NEVILLE: I do have a request to
8. postpone this item. My client is unable to attend
9. this meeting this morning. So Kayser-Roth would
10. like to be postponed for one meeting.
11. MR. BAILEY: State your name for the
12. record, please.
13. MR. NEVILLE: James Neville, Neville
15. MR. BAILEY: And do you represent --
16. what is it -- Kayser?
17. MR. NEVILLE: Kayser-Roth. Yes, I
18. do.
19. MR. BAILEY: Okay.
20. MR. PISCHKE: So we’ll table till the
21. next meeting. Thank you.
22. MR. NEVILLE: Thank you.
23. MR. PISCHKE: Next item is 17-12. Do
24. we have any conflicts of interest on this item
25. within the Board? Okay. You represent them, as

1. well?
2. MR. NEVILLE: Yes.
3. MR. PISCHKE: Okay. Go ahead and
4. push the button. It’ll turn green and state your
5. name -- names and --
6. MR. NEVILLE: James Neville with
7. Neville Engineering.
8. MR. WATTS: Eric Watts, Fresenius
9. Medical Care.
10. MR. MAYHEW: Douglas Mayhew,
11. Fresenius Medical Care.
12. MR. NEVILLE: Today we’re requesting
13. a variance to the 20-minute rule regarding two
14. boilers, newly installed at Fresenius Medical Care
15. in Knoxville, Tennessee. These boilers, when they
16. go into operation, will be on-demand 24/7, providing
17. high-pressure steam for heating and their process.
18. Their process is dialysis-related products.
19. If I can have you turn to the site
20. plan on page two of their variance request, there
21. are three remote stations that they would like to
22. request that they can monitor from. One is the
23. guard shack at the top right. Then the boiler
24. room is located directly south from there, about
25. 820 feet. There is a boiler control room, which

1. is just outside the boiler area, about 27 feet.
2. They’re going to be monitoring from there
3. primarily. Then the third location that they
4. would like to have a remote station is in the
5. lobby at the front of their building. That is
6. approximately 609 feet from the boiler room.
7. As far as those monitoring the
8. boiler, at the remote station, there will be
9. security officers, and that is the only attendant
10. at the remote station, will be the security
11. officers. Now, the boiler operators for this
12. facility are -- their job title is Engineering
13. Maintenance Technician II. We’ve listed their job
14. descriptions in Appendix G, and they will be
15. monitoring the boiler every four hours while on
16. the variance.
17. If you have any questions, we’d be
18. glad to take questions. Yes, sir?
19. MR. BOWERS: Now, you will be
20. monitoring this boiler -- I assume these boilers run
21. 24/7, correct?
22. MR. WATTS: Yes, sir.
23. MR. BOWERS: Okay. So during the off
24. hours, do you have a maintenance/boiler operator
25. who’s going to be there --
1. MR. FOX: Second.
2. THE REPORTER: Okay. Thank you.
3. MR. PISCHKE: Thank you. Okay.
4. MR. BOWERS: I'm done with my discussion.
5. MR. PISCHKE: Okay. Okay.
6. MR. BAUGHMAN: Sir. How are the boilers operated presently?
7. MR. WATTS: They are operated with security guards that are there 24/7 and engineer -- or maintenance technicians, also. We monitor them every 20 minutes currently.
8. MR. BAUGHMAN: Monitoring them how?
9. MR. WATTS: With the security guard and the maintenance technician. They are doubling up on it.
10. MR. BAUGHMAN: Via -- are they physically --
11. MR. WATTS: Yes.
12. MR. BAUGHMAN: -- looking at it?
13. MR. WATTS: Every 20 minutes, physically looking at it. They're located at the station that's 27 feet away, and we are monitoring it and document it every 20 minutes, all the readings.
14. MR. BAUGHMAN: Okay. When you're looking at it, are we looking at it just from the standpoint of calling it line-of-sight or are we looking at it with any specific criteria?
15. MR. WATTS: We walk up to the boiler and we have specific criteria that we check on the boiler and the deaerator.
16. MR. BAUGHMAN: And what are those criteria, just for my own --
17. MR. WATTS: The pressure -- hang on just a second. Hang on just a second. We've got one of the guys here.
18. MR. BAUGHMAN: You bet. Yeah. Thanks for taking the time.
19. MR. MANUEL: We monitor steam pressure, DA level --
20. MR. BAUGHMAN: State your name for the --
21. MR. MANUEL: Oh, I'm sorry. Benjamin Manuel, Fresenius Medical Care. So we check the steam pressure, the DA level, the water level in the boiler, and -- one more thing, the --
22. MR. WATTS: Yeah. The sight glass, that's correct.
23. MR. BAUGHMAN: So how you're operating it now is very -- a very safe means of operation. So how does this add to the safety aspect by being able to now check it every four hours?
24. MR. WATTS: How does that add to the safety?
25. MR. MAYHEW: Will it maintain the same?
26. MR. BAUGHMAN: Correct.
27. MR. MAYHEW: Yeah. It would maintain the same. It's the same parameters. The attendant's there.
28. MR. NEVILLE: The Hawk 4000 controls on both of these boilers will be monitoring the safety levels, as well. They will be -- I mean -- at the remote station, staffing those in a -- while they're on the variance.
29. MR. BAUGHMAN: Sure.
30. MR. NEVILLE: -- So --
31. MR. BAUGHMAN: I guess my point is if we have a sight glass happen to break --
32. MR. WATTS: Monitor a sight glass rupture.
33. MR. WATTS: That's true.
34. MR. MANUEL: It monitors the level.
35. MR. BAUGHMAN: The water level.
36. MR. MANUEL: Yes, sir.
37. MR. BAUGHMAN: Correct.
38. MR. MANUEL: It monitors a lot but not everything. So I understand what we're saying and why we're going to the variance. I just want everybody to know that we're training security guards or you're having security guards in this position of attending a piece of equipment that has more power than dynamite. And in doing so, understanding that that training goes beyond operating the boiler itself.
39. MR. NEVILLE: There is one. I can't tell you what it is, but it was inspected.
40. MR. MANUEL: It monitors steam pressure, DA level --
41. MR. BAUGHMAN: Okay. And just for speaking with the DA, going to the equipment description on Appendix A, Boiler Data, under the DA data sheet, we're got the N.B. number but we don't have a Tennessee Number assigned.
42. MR. MAYHEW: There is one. I can't tell you what it is, but it was inspected.
43. MR. BAUGHMAN: Okay. And just for...
1. the record, I'd like it to be part of --
2. MR. MAYHEW: Yes, sir.
3. MR. NEVILLE: We can update that field.
4. 
5. MR. BAUGHMAN: So on this, it's showing the unit is a Bryan 700-gallon capacity,
6. design pressure 50 PSI, but the DA is operating atmospheric. I don't quite understand that since
7. the DA is not an atmospheric application unless
8. there's a problem with the DA itself. So could you elaborate a little on that?
9. MR. WATTS: I don't have an answer for you on that.
10. MR. NEVILLE: I will get some more information on that.
11. MR. BAUGHMAN: Okay.
12. MR. MAYHEW: It's about seven pounds. I'll tell you that.
13. MR. BAUGHMAN: About what it should be.
14. MR. MAYHEW: Okay. So --
15. MR. BAUGHMAN: Yeah. Exactly. It should be seven to ten PSI, but I just noted that it did show that it was atmospheric and didn't know why.

1. How are we communicating between the Hawk and the rest of the remote stations? Are we doing anything via web-based communications? How are we communicating?
2. MR. NEVILLE: Those should all be hardwired.
3. MR. BAUGHMAN: I'm sorry. You --
4. MR. NEVILLE: Those are hardwired connections for each of the boilers. So -- you can --
5. MR. WATTS: The one -- we're going to hardwire all of them and the one that goes -- the further is 821 feet, is going to be fiber-optic.
6. MR. BAUGHMAN: Okay. And how is the communications back to maintenance personnel, should there be any needs for communication, is this via --
7. MR. WATTS: Telephone or a walkie-talkie. We have the option of both of those.
8. We usually use cell phones for communication.
9. MR. BAUGHMAN: Okay. How many maintenance personnel do you have?
10. MR. WATTS: Currently, we have seven maintenance personnel.
11. MR. BAUGHMAN: So on the weekends, from what Mr. Bowers was asking before, it sounds like there's how many security guards on --
12. MR. WATTS: One security guard and one technician.
13. MR. MANUEL: On each shift.
14. MR. BAUGHMAN: Okay. I take it the security guard has other duties?
15. MR. WATTS: No.
16. MR. BAUGHMAN: He doesn't make any rounds whatsoever?
17. MR. WATTS: Nothing.
18. MR. BAUGHMAN: He just stays at the guard station?
19. MR. WATTS: Or at -- correct. That's all he does.
20. MR. BAUGHMAN: Okay. So should there be an incident within the facility itself, he would not respond to it. He would stay put.
22. And he'll help notify 911 or direct traffic if he's out there, but other than that, he's right there.
23. MR. BAUGHMAN: Okay. And then we've got one maintenance personnel on call. And he's not necessarily on call; he's at the facility.
24. MR. WATTS: He's on site all the time.
25. MR. BAUGHMAN: So on the weekends, there will be somebody, not only the security guard, but there'd be a maintenance --
26. MR. MAYHEW: Yes. 24/7.
27. MR. BAUGHMAN: -- technician.
28. MR. WATTS: We have two people on site all the time. Correct.
29. MR. MANUEL: 24/7.
30. MR. BAUGHMAN: Very good. That's all I got for now.
31. MR. NEVILLE: Okay.
32. MR. BAUGHMAN: Thank you.
33. MR. PISCHKE: Okay. I had a couple questions.
34. MR. NEVILLE: Yes.
35. MR. PISCHKE: On the training of the personnel in the procedures, is there any kind of testing criteria or, you know, is it just instructional and, you know, how often is this done and --
36. MR. NEVILLE: Are you talking about training to the variance manual or training for the boiler attendant?
37. MR. PISCHKE: Reacting to the boiler alarms --
1. MR. NEVILLE: Okay.
2. MR. PISCHKE: -- and emergency procedures, and so on and so forth.
3. MR. NEVILLE: There will be yearly training, as far as to the variance. As far as training the boiler operators to be a qualified boiler operator, that would be -- outside training is brought in --
4. MR. PISCHKE: Yeah.
5. MR. NEVILLE: -- to do on-site training.
6. MR. PISCHKE: But the security officers and the maintenance employees that will be responding to this -- or, you know, involved in the variance, are they just trained once and that's it or --
7. MR. WATTS: We have requirements that we train annually on the boiler and the training of the boiler. The company policies are that.
8. MR. PISCHKE: Do they have any other safety responsibilities, site safety responsibilities?
9. MR. WATTS: As far as the security guard or the --
10. MR. PISCHKE: Either of them. Both of them.
11. MR. WATTS: At this time, security guards do not have any other criteria that they're responsible for other than the boiler. The maintenance technicians do have some other plant equipment they're responsible for maintaining and keeping an eye on, but they're not solely at the boiler all the time.
12. MR. PISCHKE: That's just one of the things that I like to ask when it comes to training and the personnel is their involvement in safety and how integrated safety is into their roles and responsibilities and their daily activities and how much that's a part of the company culture in operating this, because this is a very, as my colleague pointed out, this is dangerous equipment.
13. So safety's number one. Any other --
14. MR. FOX: I agree with what you're saying. We don't -- my deal on the training part of it is we don't want someone resetting a boiler if they do not -- if they don't understand what that boiler's actually out on. The consequences of trying to start it back up without recognizing what the fault is. That's --
15. MR. BAUGHMAN: I've got something more.
16. MR. PISCHKE: Okay.
17. MR. BAUGHMAN: If you'll pay -- turn to job description under G-2 --
18. MR. NEVILLE: Okay.
19. MR. BAUGHMAN: -- and if you can read for me -- since we just said that the security officer does not leave the security station, could you read for me what that job summary states?
20. MR. WATTS: Observes and reports activities and incidents as assigned client providing for security and safety of client property and personnel. Makes periodic tours of -- check for irregularities and inspect protection devices and fire control equipment. Preserves order and may act as enforce regulations and directives for the site pertaining to personnel, visitors, and, premise (verbatim).
21. MR. BAUGHMAN: Thank you, brother.
22. Going on down to number five, I'll read that. The security officer patrols assigned site on foot or in vehicle; checks for unsafe conditions, hazards, unlocked doors, security violations, blocked ingress and egress, mechanical problems, unauthorized persons, so forth and so on.
1. MR. NEVILLE: Which it needs to be
2. more --
3. MR. BAUGHMAN: Why have we got this
4. in the manual if it's not an accurate representation
5. of the job description? Otherwise, this is a
6. copy/paste, put it in as filler, it doesn't make any
7. difference kind of, piece of paper in here, and I
8. take exception to that.
9. MR. PISCHKE: I would tend to agree.
10. If there's a specific contractual agreement -- I
11. assume the security guards are contracted or are
12. they --
13. MR. WATTS: They are contract.
14. MR. PISCHKE: Okay. If there's a
15. specific contractual agreement on the duties that
16. are specific to this site, then we should have those
17. in that manual and they should be spelled out very
18. clearly.
19. MR. BOWERS: Yeah. The problem is,
20. you know, any incident is usually a combination of a
21. bunch of events happening. So if this security
22. guard who's supposed to be monitoring the boiler,
23. he's taking care of other situations -- you know,
24. it's usually not one thing that happens. Usually,
25. it's several things that happen that ended up a big

1. problem. And that's -- I think that's one of our
2. concerns that if this is true, which you say it's
3. not, that there'll be nobody monitoring the boiler
4. for a certain amount of time.
5. MR. PISCHKE: Yeah.
6. MR. BAUGHMAN: And this is -- excuse
7. me. This is an integral part of what you're asking
8. for in this variance. And because it's a
9. description that you said, well, it's generic, that
10. you've got a contract with this security company, as
11. it states right here, it's very contradictory to
12. what you're laying out there. And all I can go with
13. is what you've got --
14. MR. NEVILLE: Absolutely.
15. MR. BAUGHMAN: -- in here.
16. MR. NEVILLE: Yes. This definitely
17. needs to be modified to the way they're operating --
18. plan to operate, because obviously, their
19. requirements that a security officer be at the
20. station, you know, not doing controls, that would be
21. required to have the variance. So -- but this --
22. MR. BAUGHMAN: And did you review
23. this, James?
24. MR. NEVILLE: I did. You know. But
25. at the time, the thought was there would be more
1. needs to be cleaned up. It made me believe that it
2. was conceptual, which --
3. MR. WATTS: Okay.
4. MR. ROBINSON: You've got two
5. boilers, correct?
6. MR. WATTS: Correct.
7. MR. ROBINSON: And you're going to
8. have one switch at each door for the two boilers,
9. correct?
10. MR. WATTS: They're there currently.
11. Yes.
12. MR. ROBINSON: Yes, sir.
13. MR. MAYHEW: There's two. There's
14. one E-stop for each boiler, so there's two.
15. MR. ROBINSON: That's unacceptable.
16. MR. CHAPMAN: There's only one E-stop
17. for --
18. MR. NEVILLE: One shuts both.
19. MR. WATTS: Per two boilers?
20. MR. CHAPMAN: -- no matter how many
21. boilers you've got in that room.
22. MR. WATTS: Okay.
23. MR. CHAPMAN: One button kills
24. everything.
25. MR. WATTS: Okay.

1. MR. ROBINSON: And the rationale is,
2. trying to figure out which boiler is -- to shut off
3. is going to be a challenge sometimes.
4. Sir, that's all I have. That's all I
5. have.
6. MR. BAUGHMAN: Do we have a site plan
7. of the boiler room itself?
8. MR. NEVILLE: We did not. Not in
9. this manual, currently. We have a power piping and
10. feedwater diagram but not a plot plan of the -- just
11. the boiler room itself.
12. MR. BAUGHMAN: Do we not usually have
13. that?
14. MR. NEVILLE: We typically do. We
15. can add that to the manual, if you'd like.
16. Regarding the security officers and
17. their monitoring, if they were to leave their
18. post, you know, we do state in here that, if for
19. any reason they have to leave their post, they
20. would resort back to the 20-minute rule. So they
21. would be -- if for any reason he had to respond to
22. an emergency, they're no longer on the variance,
23. they would have to monitor that boiler every 20
24. minutes from the boiler room.
25. MR. BOWERS: So he would basically

1. MR. NEVILLE: Sure.
2. MR. BAUGHMAN: And he's incapacitated
3. for whatever reason, security then -- even if we
4. don't have an alarm --
5. MR. NEVILLE: Right.
6. MR. BAUGHMAN: -- security personnel
7. is then to operate the boiler under the 20-minute
8. rule. The problem being is that we've just got one
9. security person who then has to leave his duties as
10. a security officer to operate the boiler or he shuts
11. the boilers off and stays at his security station,
12. one or the other.
13. MR. NEVILLE: Right.
14. MR. BAUGHMAN: Either way, it's not a
15. good scenario. But --
16. MR. NEVILLE: Well, you know, they
17. would shut the boilers off and then call on the
18. emergency call list and report that outage if the
19. boiler attendant on duty could not be reached or was
20. sick or -- so people would be notified of that
21. condition.
22. MR. BAUGHMAN: Yeah. I understand.
23. I'm just thinking about Memorial Days, Christmas,
24. holidays trying to get in touch with somebody --
25. MR. NEVILLE: Yeah.
1. MS. BENNETT: -- off site to be able
to notify them and then that timeframe of having
them come in and so forth. You've got to -- kind of
got to look at all the different avenues that play
into the operation of this piece of equipment.
2. MR. PISCHKE: Mr. Robinson?
3. MR. ROBINSON: Just two questions.
4. MR. NEVILLE: Yes.
5. MR. ROBINSON: Your monitoring
stations, you have two monitoring stations, correct?
6. MR. NEVILLE: There were three.
7. MR. ROBINSON: The boiler room.
8. MR. NEVILLE: Right. Right outside
the boiler room.
9. MR. ROBINSON: Two with the exception
of the boiler room.
10. MR. NEVILLE: Yeah. Boiler control
rooms.
11. MR. ROBINSON: The question is, what
mechanism do you use to identify who's in which
monitoring station?
12. MR. NEVILLE: You want to --
13. MR. WATTS: So we will have
documentation of when someone leaves one and the
other one becomes active, and we will exchange that
with the engineering tech and the boiler room -- or
the security guard.
3. MR. ROBINSON: Is that a manual
exchange, electronic, phone call?
4. MR. WATTS: As far as, when you say
manual --
5. MR. ROBINSON: I hand it off to
Chief.
6. MR. WATTS: What'll happen is,
physically, we'll do that, yes.
7. MR. NEVILLE: And then it should be a
log on the --
8. MR. WATTS: And we'll have it logged
and documented.
9. MR. ROBINSON: Electronic log or --
10. MR. WATTS: Electronic log.
11. MR. ROBINSON: Okay. Your training
methods, as far as the monitoring, have you
performed training already? Are your people
trained?
12. MR. WATTS: Yes.
13. MR. ROBINSON: And they're trained
to -- I'm sorry, go ahead.
14. MR. NEVILLE: Possibly not trained to
this manual yet, but training as far as boiler --
15. MR. WATTS: As far as boiler
management, right. And attendant.
16. MR. ROBINSON: So they're not trained
to the manual.
17. MR. WATTS: Correct.
19. MR. WATTS: That's not -- that's
correct.
20. MR. ROBINSON: Okay. That's what --
21. that's --
22. MR. BOWERS: Does the security
guard -- I see where the guard shack is. Does he
have a vehicle there all the time?
23. MR. WATTS: That's a good question.
24. We don't -- I don't know. We don't have the
security guard station ready to move into yet.
25. MR. BOWERS: Okay.
26. MR. WATTS: So I would imagine they
would have some sort of a -- you know, a golf cart
or something like that. That would be most likely
what will happen, but we don't have that yet.
27. MR. BOWERS: Well, the reason I was
addressing that, you know, if you have to -- the
security guard has to check the boiler, it's
800-something feet over there. You know. It's a
pretty good little ways. That's why -- by the time
you walk over there, it'd take 20 minutes to get
over there and get back. You know. So -- till he'd
have to walk back again. So he'd have to pretty
well be in the boiler room if he's going to station
at the security guard station (verbatim). So that's
why I was wondering if there was going to be a
vehicle that he could run over to the boiler room
and check it.
28. MR. BAUGHMAN: There was one mention
of a personnel that -- and just caught my attention
real quick. You mentioned an engineering tech?
29. MR. WATTS: Originally, that's what
we called him when I first hired him, but they're
not engineering techs now.
30. MR. BAUGHMAN: Okay. Although we
just called him an engineering tech. That was just
a slip.
31. MR. WATTS: I know. It is.
32. MR. BAUGHMAN: Okay.
33. MR. WATTS: It's -- my apology. I'm
not using the correct terminology.
34. MR. BAUGHMAN: Okay.
35. MR. WATTS: We had to change the
names after we first hired them.
Boiler one, boiler two. Their process is of -- at two doors, because you've got the shock buttons. They had two shock buttons and And the shock buttons -- we mentioned that. And their 20-minute rule, they're abiding by that.

You could eat off the floor. But that's neither here nor there. Their boiler room has -- their control room where they can see the boilers, I've seen their -- they have already had their manual intact, their personnel, their engineering department, their boiler operators; I've seen that. And their 20-minute rule, they're abiding by that.

And the shock buttons -- we mentioned the shock buttons. They had two shock buttons and I recommended two shock buttons, because in their process of -- at two doors, because you've got boiler one, boiler two. Their process is 100-percent sterile.

Dialysis. And the process is -- I mean, it has to be sterilized. They said that they went through a scenario with low-water cutoff. I had -- their computer room was compatible to the Hawk system on both the Cleaver-Brooks boilers. We went through a flap failure and primary and secondary low-water cutoff. I know that it went through a purge system, post-purge, but as far as the airflow switch, I didn't -- we didn't check. We went through a flame failure and primary and secondary low-water cutoff.

MR. BAUGHMAN: Danny, I'll just ask you real quick. You mentioned checking low waters, checking things, have you checked the airflow switch?

MR. PETERS: I know that it went through a purge system, post-purge, but as far as the airflow switch, I didn't -- we didn't check. We went through a flame failure and primary and secondary low-water cutoff.

MR. BAUGHMAN: And the reason I ask that is that we've seen combustion explosions over the years from the failure of an airflow switch, and rarely does the airflow switch get checked. And on the Hawk system, you also have to enable whether it's checking the airflow switch. It typically checks it to be closed, but it doesn't check it for.
1. being reopened. And if it sticks in the closed
2. position and then you lose the blower motor, the
3. boiler thinks it's still got air and it'll load up
4. and have what we refer to as a self-cleaning stack
5. incident.
6. MR. PETERS: Will that show in the
7. computer readout as it goes through the purge? Will
8. it show that, though, that it's proved?
9. MR. BAUGHMAN: Yes.
10. MR. PETERS: The power switch.
11. MR. BAUGHMAN: If it's in the closed
12. position. Let's say the airflow switch is stuck
13. closed. It's a diaphragm switch, so it can stay
14. closed. So it'll go through a pre-purge and it'll
15. come back down and go into the ignition sequence,
16. and it'll try to light off, because it things its
17. got air, because that airflow switch is closed.
18. So it's an important part of what
19. we're checking to make sure that that airflow
20. switch is working properly. And, of course, if we
21. don't check it, we don't know. But -- so what I'm
22. getting at is these controls, as sophisticated as
23. they are, man made them. Man's operating it. Man
24. maintains it. And if man's involved, it's not
25. perfect.

1. So working as a team within this
2. aspect, we want to make sure that we're all
3. working towards the goal of not talking about an
4. incident.
5. MR. PETERS: I'll make sure that we
6. do go through a safety check with that airflow the
7. next time.
8. MR. BAUGHMAN: Super.
9. MR. PISCHKE: Any other questions,
10. comments? Well, what's your pleasure, as far as --
11. you want us to vote or would you like to revise?
12. MR. NEVILLE: I'd like to go over the
13. items that we will revise for the -- first of all,
14. as far as the security officer, we will have -- this
15. is -- was provided by the security company that they
16. work with. We will have a tailored one, as well,
17. for the other shifts where they're just operating
18. one security officer at the -- so we would like to
19. provide a manual with additional information there.
20. Also, on the deaerator information,
21. we will update that with the Tennessee Number and
22. the seven pound operating pressure for that.
23. And I believe those were the -- and
24. one other piece of information that was mentioned
25. as far as the boiler room, a plot plan of the

1. boiler room and the -- showing the exits on that
2. and modifying the shutoffs to one. So --
3. MR. WATTS: One E-stop.
4. MR. NEVILLE: One E-stop. Those are
5. the three items that I had -- or four items that I
6. had that we will modify.
7. MR. BAUGHMAN: I've got one other
8. item to address and that's on page H-1 under
9. Appendix H, the Boiler Variance Training Log.
10. MR. NEVILLE: Yes.
11. MR. BAUGHMAN: So where do we
12. presently stand? As of today, we've got no training
13. that's in place --
14. MR. NEVILLE: That's --
15. MR. BAUGHMAN: -- according to the
16. log sheet.
17. MR. NEVILLE: That is correct.
18. MR. BAUGHMAN: Okay.
19. MR. NEVILLE: Right. I mean, you
20. know, we're applying for a variance. You know.
21. Once the variance is approved, then we would train
22. individuals on what the variance is, because this
23. document could change, so we don't want to train
24. them to a document that hasn't been approved by the
25. Board.
1. training and -- before they --
2. MR. NEVILLE: Okay.
3. MR. BAUGHMAN: And refresh me again,
4. who's in charge of training personnel?
5. MR. WATTS: We have Boiler Supply
6. training the technicians, and then the technicians
7. are training the security personnel.
8. MR. BAUGHMAN: And for new hires,
9. when they come in, who is going to be responsible?
10. MR. WATTS: We have a training
11. organization that is giving them orientation, and
12. they'll give them, you know, the basics. And then
13. whenever they're finished with that, our engineering
14. techs will go over the same trainings for the
15. boiler.
16. MR. BAUGHMAN: And is that laid out
17. in the manual, James?
18. MR. NEVILLE: As far as the training,
19. if you'll look on G-6, you know, we've got on-site
20. boiler training there listed. But as far as more
21. detail than that, no, we don't -- we have not
22. documented that.
24. MR. NEVILLE: Yes. Yes. Regarding
25. training for the boiler variance.

1. MR. ROBINSON: Right.
2. MR. NEVILLE: Yes.
3. MR. ROBINSON: Yes.
4. MR. NEVILLE: Yes. Okay.
5. MR. ROBINSON: But now, which leads
6. me to another question.
7. MR. NEVILLE: Yes.
8. MR. ROBINSON: Who is the facilities
9. and maintenance manager?
10. MR. WATTS: That's me.
11. MR. ROBINSON: You're responsible for
12. training all incoming personnel assigned to boiler
13. duties and keeping a documentation log.
14. MR. NEVILLE: Yes.
15. MR. ROBINSON: But you said it was
17. MR. WATTS: Well, Boiler Supply
18. trains our engineering technician -- our -- yeah,
19. engineering --
20. MR. NEVILLE: Boiler attendant.
21. Right. The boiler attendants are trained by Boiler
22. Supply. So I guess we've got two things going on
23. here. The training to the variance manual, how we
24. handle the variance and then qualifying a boiler
25. attendant.

1. specific job duties of what the boiler requirements
2. are with checks and things like that. And then the
3. training of the book, obviously, is part of it, as
4. well.
5. MR. BAUGHMAN: So there's some
6. multiple entities that'd be involved in training, it
7. sounds.
8. MR. WATTS: To get someone up to
10. MR. BAUGHMAN: Okay. And that should
11. be identified, also, a little --
12. MR. WATTS: Okay.
13. MR. BAUGHMAN: -- more clarification
14. on -- because, as we know, this is a copy and paste,
15. James.
16. MR. NEVILLE: Well --
17. MR. BAUGHMAN: This is very much --
18. MR. NEVILLE: -- as far as the
19. facility and maintenance manager, you know, he is
20. the one person responsible for making sure the
21. documentation is filled out. I mean, he is -- will
22. have subordinates that he's handing off the training
23. to. We can document that, if that's what -- you
24. know.
25. MR. BAUGHMAN: Well, and you're
saying that he's responsible for the
documentation --
  MR. NEVILLE: Yes.
  MR. BAUGHMAN: -- but it also says
  he's responsible for training. Not just responsible
  for documentation --
  MR. NEVILLE: Right.
  MR. BAUGHMAN: -- but he's
  responsible for the training, as this states.
  MR. NEVILLE: Absolutely.
  MR. BAUGHMAN: Okay. And from what
  he's saying -- is that others are involved in that
  training, also, not just himself. And so I -- since
  there's multiple entities involved in training --
  MR. NEVILLE: Absolutely.
  MR. BAUGHMAN: -- they need to be
  identified.
  MR. NEVILLE: Okay.
  MR. PISCHKE: Any other questions,
  comments, clarifications?
  MR. BAUGHMAN: Well, the only other
  clarification I've got, Mike, is under Personnel
  Responsible for Remote Monitoring, in the first
  section, Remote Station Personnel, it just says, a
  trained boiler operator must attend the boiler, and
  I don't see anything under "boiler operators" as job
  descriptions. I see "security officer" and
  "engineering maintenance tech II/boiler attendant,
  but I don't see a trained boiler operator.
  MR. NEVILLE: Right. And --
  MR. BAUGHMAN: And so just from a
  clarification standpoint, a trained boiler
  attendant -- since we don't have an operator listed
  in any capacities -- not unless I missed --
  MR. NEVILLE: Right. I mean, that
  would be -- I mean, the only trained boiler operator
  would be the engineering maintenance technician II,
  so -- yeah. We could change that to an attendant.
  So --
  MR. BAUGHMAN: That was a lot.
  MR. PISCHKE: That was a lot. Yeah.
  Any more?
  MR. BOWERS: No.
  MR. BAUGHMAN: No. You guys did
  well.
  MR. PISCHKE: Should we move to
  accept contingent?
  MR. BAUGHMAN: Well, you put the
  motion out there.
  MR. BOWERS: Put the motion out
  there?
  MR. BAUGHMAN: You cannot.
  MR. BOWERS: Okay.
  MR. BAUGHMAN: No, he --
  MR. BAUGHMAN: Oh, no --
  MR. BAUGHMAN: He didn't have a
  conflict with this one.
  MR. BAUGHMAN: -- this isn't a
  conflict. I'm sorry. Excuse me.
  MR. BAUGHMAN: Yeah, you can make --
  MR. BAUGHMAN: Sorry, Harold.
  MR. PISCHKE: You can --
  MR. BAUGHMAN: You're the new guy.
  MR. PISCHKE: You can move.
  MR. BAUGHMAN: You cannot. No, I'm
  sorry.
  MR. BOWERS: Yeah, I move -- I motion
  that we -- vote --
  MR. ROBINSON: You can't --
  MR. BAILEY: Yeah.
  MR. PISCHKE: Do I --
  MR. BAUGHMAN: He didn't have a
  conflict with this one.
  MR. ROBINSON: Okay.
  MR. BAUGHMAN: It was the other one.
1. fix the things that you have pointed out.
2. MR. BOWERS: Yes. Okay.
3. MR. BAILEY: So -- I mean, that -- so
4. which way do you want to go?
5. MR. BOWERS: To -- a vote to accept
6. it and that they fix the -- update the stuff they --
7. MR. BAILEY: Okay. Thank you. Any
8. second?
9. MR. PISCHKE: Do we have a second?
10. No second?
11. MR. FOX: I'll second that.
12. MR. PISCHKE: Okay. So I'll call for
13. the question. All those in favor, say, "aye."
14. (No verbal response.)
15. MR. PISCHKE: Opposed?
16. THE REPORTER: You have to say it
17. verbally, please.
18. MR. BOWERS: Aye.
20. MR. BAUGHMAN: No.
21. MR. PISCHKE: One no.
22. MR. BAILEY: Am I allowed to vote
23. on --
24. MR. BAUGHMAN: Yes.
25. MR. PISCHKE: Okay. I vote for,

1. based on --
2. MR. NEVILLE: Based on the
3. modifications that --
4. MR. PISCHKE: -- the contingencies.
5. MR. BAUGHMAN: I'd like to add --
6. MR. NEVILLE: Thank you.
7. MR. BAUGHMAN: -- do we have ever see
8. the revision ourselves? We do not? You said we do?
9. MR. CHAPMAN: We do.
10. MR. BAUGHMAN: And when do we see
11. those?
12. MR. CHAPMAN: No. The Board doesn't,
13. but I get them.
14. MR. BAUGHMAN: You get them.
15. MR. CHAPMAN: I get them.
16. MR. NEVILLE: Mr. Chapman checks
17. those. Yes, sir.
18. MR. PISCHKE: The motion carries, by
19. the way.
20. MR. NEVILLE: Okay. We're approved.
21. Thank you.
22. MR. BAUGHMAN: Good job, guys.
23. MR. NEVILLE: Thank you.
25. MR. PISCHKE: Yeah. Thank you very

1. much. We're going to take a brief 10-minute break.
2. Yeah.
3. And we have a presentation before the
4. break. Can we --
5. MS. RHONE: I have a -- just before
6. the break, we have a special presentation. During
7. our trainings, we have what we call the
8. Douglas Pippin Memorial Award. We implemented that
9. in 2004, and that was based on -- we had Assistant
10. Chief, Douglas Pippin, who passed away in 2004. So
11. each year, during our conference, we like to
12. recognize one of our boiler inspectors, which we
13. know all of them are very diligent. But we'd like
14. to recognize one of our boiler inspectors.
15. And this year, our award says, on the
16. Department of Labor and Workforce Development
17. Workplace Regulations and Compliance, be it known
18. that Dallas Word --
19. (Applause.)
20. MS. RHONE: -- that Dallas Word is
21. awarded the 2017 Douglas Pitman Memorial Achievement
22. Award in recognition of outstanding commitment and
23. dedication to the interest and achievements of the
24. goals of the Tennessee Boiler Unit this 20th day of

1. (Applause.)
2. MS. RHONE: All right.
3. Congratulations.
4. MR. WORD: Thank you.
5. MR. BAUGHMAN: Still going to take a
6. break?
7. MR. PISCHKE: Going to take a break.
8. (Recess observed.)
9. MR. PISCHKE: Okay. We'll get
10. started again. The next item on the agenda is
11. 17-13, Milan General Hospital. Representative?
12. MR. NEVILLE: This is James Neville
13. with Neville Engineering. I represent Milan General
15. MR. MUMMERT: And I'm Derrick
16. Mummert. I'm the maintenance manager from the
17. hospital.
18. MR. BAUGHMAN: Hey, Derrick.
19. MR. MUMMERT: Hello.
20. MR. NEVILLE: We're back today to
21. request --
22. MR. BAILEY: Excuse me. Any
23. conflicts?
24. MR. PISCHKE: Oh, I'm sorry. Yes.
25. Thank you. I had it written right here, too. Are
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<td>1.</td>
<td>there any conflicts of interest that we need to identify at this time? Okay. Hearing none, please proceed.</td>
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<td>2.</td>
<td>MR. NEVILLE: We're here today to request a boiler variance for two boilers. These boilers are operated on-demand 24 hours a day, seven days a week, furnishing high-pressure steam for space heating, potable water heating, dietary equipment sterilizers, and humidification.</td>
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<td>3.</td>
<td>On Appendix A-2, it lists those boilers. I'll have you flip there and we'll --</td>
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<td>5.</td>
<td>MR. NEVILLE: Or A-1. Pardon me.</td>
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<td>6.</td>
<td>And those boilers are Tennessee Number T106752 and T103962. Those are both Cleaver Brooks boilers.</td>
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<td>7.</td>
<td>They were manufactured in 2015.</td>
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<td>8.</td>
<td>Both of those boilers have the Hawk 4000 control system. In the site plan, we list the boiler room and the remote station. And that is -- the distance between those is 192 feet.</td>
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<td>9.</td>
<td>The individuals that will be monitoring those boilers at the remote station is a respiratory therapist. They will be monitoring the alarm panel and responding to alarms. And the individuals that will be monitoring as boiler</td>
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<td>10.</td>
<td>MR. MUMMERT: And I actually have three senior maintenance mechanics.</td>
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<td>11.</td>
<td>MR. NEVILLE: So we've detailed the emergency procedures for this when an alarm -- and that is on page 10 on the colored page part of the checklist. We've listed our emergency call list on page 11. And as far as training the individuals to be boiler attendants, if you'd like to elaborate on how they are trained --</td>
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<td>12.</td>
<td>MR. MUMMERT: Yeah. Morgan &amp; Thornburg is coming out of Memphis. They did my boiler swap-out. When they did the actual installation, once it was up and running, they did a on-hands training with my guys for a day to make it -- you know shutdown, startups, troubleshooting how to do the alarms, how to test everything. And then six months later when we switched the boilers, they came back with my same group of guys and did a -- showed us how to open it up for an internal inspection and get it ready for the inspector to do that.</td>
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<td>attendees -- there are three -- or four listed.</td>
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<td>2.</td>
<td>Pardon me, three listed. The maintenance manager, if the senior maintenance mechanic, and the general maintenance mechanic. Those are listed on page seven.</td>
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<td>3.</td>
<td>MR. MUMMERT: And I actually have three senior maintenance mechanics.</td>
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<tr>
<td>4.</td>
<td>MR. NEVILLE: So we've detailed the emergency procedures for this when an alarm -- and that is on page 10 on the colored page part of the checklist. We've listed our emergency call list on page 11. And as far as training the individuals to be boiler attendants, if you'd like to elaborate on how they are trained --</td>
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<td>5.</td>
<td>MR. MUMMERT: Yeah. Morgan &amp; Thornburg is coming out of Memphis. They did my boiler swap-out. When they did the actual installation, once it was up and running, they did a on-hands training with my guys for a day to make it -- you know shutdown, startups, troubleshooting how to do the alarms, how to test everything. And then six months later when we switched the boilers, they came back with my same group of guys and did a -- showed us how to open it up for an internal inspection and get it ready for the inspector to do that.</td>
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<td>1.</td>
<td>MR. PISCHKE: Second? Okay. So questions, comments? Do we have --</td>
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<td>2.</td>
<td>MR. BAUGHMAN: One or two.</td>
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<td>3.</td>
<td>MR. PISCHKE: Okay.</td>
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<td>4.</td>
<td>MR. BAUGHMAN: Your name again is --</td>
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<td>5.</td>
<td>MR. MUMMERT: Derrick.</td>
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<td>7.</td>
<td>MR. MUMMERT: I was here in March.</td>
</tr>
<tr>
<td>8.</td>
<td>MR. BAUGHMAN: I thought you looked familiar.</td>
</tr>
<tr>
<td>9.</td>
<td>MR. MUMMERT: Yeah. I had to go back and fix some things, but that's all -- hopefully -- and hire somebody to help me.</td>
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<td>10.</td>
<td>MR. BAUGHMAN: Okay. And this is for that same hospital?</td>
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<td>11.</td>
<td>MR. MUMMERT: Yes. Uh-huh.</td>
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<tr>
<td>12.</td>
<td>MR. BAUGHMAN: Okay. And how many hospitals are you responsible for?</td>
</tr>
<tr>
<td>13.</td>
<td>MR. MUMMERT: Two hospitals and two medical centers.</td>
</tr>
<tr>
<td>14.</td>
<td>MR. BAUGHMAN: It's pretty a good workload.</td>
</tr>
<tr>
<td>15.</td>
<td>MR. MUMMERT: Too much work load.</td>
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| 16. | MR. BAUGHMAN: Yeah. That's a big responsibility, Derrick, and I know that's a lot to
<table>
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<tbody>
<tr>
<td>1. shoulder.</td>
<td>1. MR. BAUGHMAN: Okay.</td>
</tr>
<tr>
<td>2. Being that, we've got three senior mechanics. Are those three senior mechanics also spread between two hospitals and two medical centers?</td>
<td>2. MR. MUMMERT: 6:00 to 2:30.</td>
</tr>
<tr>
<td>3. MR. MUMMERT: I've got one that's part-time, and he stays in Gibson County, which is where Milan Hospital is at. He stays only in those three facilities there, because Humboldt, Trenton, and Milan's all in Gibson County. So he stays in between those three, as needed. The other two are full-time at Milan.</td>
<td>3. MR. BAUGHMAN: 6:00 to 2:30. So that leaves a little gap --</td>
</tr>
<tr>
<td>4. MR. BAUGHMAN: Uh-huh.</td>
<td>5. MR. MUMMERT: That's correct.</td>
</tr>
<tr>
<td>5. MR. BAUGHMAN: -- of no maintenance --</td>
<td></td>
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<tr>
<td>6. MR. MUMMERT: Senior maintenance. And there's one general maintenance that stays at Humboldt who also covers for Milan.</td>
<td>7. MR. BAUGHMAN: -- techs on site.</td>
</tr>
<tr>
<td>7. MR. BAUGHMAN: You ever have a computer issue?</td>
<td>8. MR. MUMMERT: All my guys also carry cell phones that are tied into the computer system.</td>
</tr>
<tr>
<td>8. MR. BAUGHMAN: Oh, yes.</td>
<td>9. MR. BAUGHMAN: You ever have a computer issue?</td>
</tr>
<tr>
<td>9. MR. MUMMERT: Once or twice.</td>
<td>10. MR. BAUGHMAN: Via the computer.</td>
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<tbody>
<tr>
<td>1. Milan?</td>
<td>1. MR. BAUGHMAN: Yeah. So during those times that there are not any technicians, there's always a respiratory therapist that'll be --</td>
</tr>
<tr>
<td>2. MR. MUMMERT: Eighteen miles.</td>
<td>2. MR. MUMMERT: 24/7. There's usually two at a time.</td>
</tr>
<tr>
<td>3. MR. BAUGHMAN: Okay. So personnel that are at the hospital at any one time, besides the respiratory therapist would be who?</td>
<td>3. MR. NEVILLE: Yeah.</td>
</tr>
<tr>
<td>4. MR. MUMMERT: Engineering-wise?</td>
<td>4. MR. BAUGHMAN: Okay. Is there ever an instance where, for lack of a more diplomatic term, I guess, where multiple people can be coughing up a lung, that the respiratory therapist may be at multiple patients?</td>
</tr>
<tr>
<td>5. MR. BAUGHMAN: No. Just who would be responsible for the boiler?</td>
<td>5. MR. MUMMERT: You're talking about, like, after hours when maintenance is not there -- possible. Yes.</td>
</tr>
<tr>
<td>6. MR. MUMMERT: I'm there two days a week and my two senior maintenance mechanics work Monday through Friday. And then also, the administrator. When I'm not there she kind of picks up as the department manager when I'm not there. If there's questions that come up, she'll have to take care of that. She's there all week, Monday through Friday.</td>
<td>6. MR. BAUGHMAN: At any --</td>
</tr>
<tr>
<td>7. MR. BAUGHMAN: So we've got two -- at least two maintenance people that are there --</td>
<td>7. MR. MUMMERT: -- or any time?</td>
</tr>
<tr>
<td>10. MR. MUMMERT: No.</td>
<td>10. MR. BAUGHMAN: Okay.</td>
</tr>
<tr>
<td>11. MR. BAUGHMAN: During the day, it's not so much of an issue, as long as I've got guys there. Yes.</td>
<td>11. MR. MUMMERT: Sure. So -- but they're the ones that are monitoring. The</td>
</tr>
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</table>
1. maintenance wouldn't be at the nurses station to monitor, should there be an event where these people have to get up and attend to a patient in dire straights.
2. MR. MUMMERT: That's correct.
3. MR. BAUGHMAN: Okay.
4. MR. MUMMERT: Except during normal work hours.
5. MR. BAUGHMAN: Sure.
6. MR. NEVILLE: That would revert to the 20-minute rule -- if --
7. MR. MUMMERT: Yeah.
8. MR. BAUGHMAN: -- there's a medical emergency that mandates these people -- if --
9. MR. NEVILLE: -- was having an emergency in a hospital room and I needed attendance right away, I'm just wondering if the respiratory therapist is going to be able to take the time knowing that somebody is in medical straights -- and just talking real life.
1. MR. MUMMERT: Right.
2. MR. BAUGHMAN: -- that they're going to take the time to get somebody in to monitor the boilers and wait for them to monitor the boilers while this patient's in --
3. MR. MUMMERT: Respiratory therapy is an occupation that's going away, basically. I mean, I hate to say that, but it's going by the wayside.
4. Most -- all of the nurses now aren't being trained for that, even at -- we don't have any RTs at Camden Hospital. None at all. It's all done by nurses.
5. Same thing at Milan. Most -- all the nurses are doing all the RT stuff.
6. MR. BAUGHMAN: Interesting. So what you're saying is, is that the RT at some point in time is not going to be the one monitoring the boiler.
7. MR. MUMMERT: Not monitoring the boiler but not -- may not be monitoring the patients that you're talking about. It could be the nurse doing the RT job.
8. MR. BAUGHMAN: Okay. So this RT may change at some point in time to nurse.
9. MR. MUMMERT: Hopefully, not at that hospital, because we're so big and do so much volume.
10. MR. BAUGHMAN: Okay. I'm just kind of getting a clear path --
11. MR. MUMMERT: Right. Right. I understand.
12. MR. BAUGHMAN: -- and moving forward to --
13. MR. MUMMERT: There's no plans in the foreseeable future that RT will go away at that hospital.
14. MR. BAUGHMAN: Okay. Do the respiratory therapists feel comfortable in attending the boiler?
15. MR. MUMMERT: Not at first, especially if they're new. They're hesitant, scared of it. But, you know, after a -- we don't just throw them down at one time and say, here, that's yours. Look at it and figure it out. You know.
16. There's a -- we have a process where we tag-team them with somebody for usually -- depending on how fast they get comfortable, how fast they learn, it could be up to, you know, six weeks. And we try to rotate them with everyone there, every -- like all RTs. We might have six of them. That way, they could see different perspectives from different ones. So, you know, everybody's got their little pet peeves. So we try to rotate them with everybody so that it's not the same person training them. You know.
17. MR. BAUGHMAN: You bet. I can imagine -- I mean, especially going in and being a therapist and a nurse and going into this piece of equipment.
18. MR. MUMMERT: -- if they're -- unconscious or not.
19. MR. PISCHKE: That would be just as bad as one of us -- yeah -- attending a patient.
20. MR. BAUGHMAN: So we've got a person in Humboldt. We've got two full-time there. We've got one part-time. As these technicians are working
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<tr>
<td>1. at -- do they have duties at the other hospitals,</td>
<td>1. in every weekend, and we do the boiler checks and stuff. We go in and test the alarms. We do have a routine on the weekends.</td>
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<tr>
<td>2. too?</td>
<td>2. stuff. We go in and test the alarms. We do have a routine on the weekends.</td>
</tr>
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<td>3. MR. MUMMERT: Only the general</td>
<td>3. MR. BOWERS: Yeah. So that's a lot of hours that you're relying on somebody -- if you've got a multiple car wreck and those people are tied up -- you know, like -- I'm not sure they're not going to say, hey, I can't work on this patient.</td>
</tr>
<tr>
<td>4. technician. Yeah. The part-time just -- I put him where I need him.</td>
<td>4. MR. BOWERS: Yeah. So that's a lot of hours that you're relying on somebody -- if you've got a multiple car wreck and those people are tied up -- you know, like -- I'm not sure they're not going to say, hey, I can't work on this patient.</td>
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<td>5. where ever I need him.</td>
<td>5. MR. MUMMERT: If there's something that extensive that it's going to take that many people, we do a code surge drill.</td>
</tr>
<tr>
<td>6. MR. BAUGHMAN: Okay. And the general technician is the one that -- is he the one at Humboldt or is he --</td>
<td>6. MR. BOWERS: Yes, sir.</td>
</tr>
<tr>
<td>7. MR. MUMMERT: Humboldt. Yes.</td>
<td>7. MR. MUMMERT: If there's something that extensive that it's going to take that many people, we do a code surge drill.</td>
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<td>8. MR. BAUGHMAN: Okay. So that leaves us two full-time working Monday through Friday, 6:00 to 2:00 on their shifts, giving us somewhat of a little gap. If either one of those goes sick or is on vacation or the flu bug comes through and --</td>
<td>8. MR. BOWERS: Oh.</td>
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<td>9. MR. MUMMERT: I cover for them.</td>
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<td>10. MR. BAUGHMAN: Yes.</td>
<td>10. MR. MUMMERT: Yes.</td>
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<td>11. MR. BAUGHMAN: Okay. So that leaves us two full-time working Monday through Friday, 6:00 to 2:00 on their shifts, giving us somewhat of a little gap. If either one of those goes sick or is on vacation or the flu bug comes through and --</td>
<td>11. MR. MUMMERT: I cover for them.</td>
</tr>
<tr>
<td>14. MR. MUMMERT: And if something with -- if they're down and I go on vacation or if I become sick, the -- or I mean, the system-wide hospital has boiler -- their own boilers and everything. Now, they have qualified people there that can step in and help cover for us at the big house.</td>
<td>14. MR. BOWERS: Yeah.</td>
</tr>
<tr>
<td>15. MR. BAUGHMAN: Thanks, Derrick.</td>
<td>15. MR. MUMMERT: Well, it's not a drill at that point. It's real. But if we do a code surge, then we call everybody in anyway.</td>
</tr>
<tr>
<td>16. MR. BOWERS: -- is that you've got two guys; do they work on opposite shifts?</td>
<td>16. MR. MUMMERT: Yes.</td>
</tr>
<tr>
<td>17. MR. MUMMERT: No.</td>
<td>17. MR. BOWERS: Yeah. You know. You know. You've got a lot of automatic controls nowadays and -- you know, and everything's on cruise control. But, you know, I don't fly very often, but I like to have a pilot in there. You know. Not a stewardess, you know, checking on the controls. You know. It's a lot of time there that you really don't know how well-trained these people are going to be as far as -- you know, like, a person hired as a respiratory therapist, you know, like, uh, you're going to be a boiler operator? And these are pretty good-sized boilers. I mean, they could do a lot of damage. A lot of damage.</td>
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<tr>
<td>18. MR. MUMMERT: Yes, sir.</td>
<td>18. MR. BOWERS: Yeah. You know. You know. You've got a lot of automatic controls nowadays and -- you know, and everything's on cruise control. But, you know, I don't fly very often, but I like to have a pilot in there. You know. Not a stewardess, you know, checking on the controls. You know. It's a lot of time there that you really don't know how well-trained these people are going to be as far as -- you know, like, a person hired as a respiratory therapist, you know, like, uh, you're going to be a boiler operator? And these are pretty good-sized boilers. I mean, they could do a lot of damage. A lot of damage.</td>
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<tr>
<td>19. MR. BOWERS: They're working together.</td>
<td>19. MR. BOWERS: Yes.</td>
</tr>
<tr>
<td>20. MR. MUMMERT: Yes, sir.</td>
<td>20. MR. BOWERS: Yes.</td>
</tr>
<tr>
<td>21. MR. BOWERS: So they're only working eight hours.</td>
<td>21. MR. BOWERS: Yes.</td>
</tr>
<tr>
<td>22. MR. MUMMERT: That's correct.</td>
<td>22. MR. BOWERS: Yes.</td>
</tr>
<tr>
<td>23. MR. BOWERS: Out of 24 hours.</td>
<td>23. MR. BOWERS: Yes.</td>
</tr>
<tr>
<td>25. MR. BOWERS: So you've got 16 hours, basically, you're relying on that boiler operation to, I don't know, a respiratory therapist? Right?</td>
<td>25. MR. BOWERS: So basically --</td>
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<td>26. MR. MUMMERT: And alarms.</td>
<td>26. MR. MUMMERT: Well, on the weekends, I do -- my maintenance guy that's on call has to go</td>
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<tr>
<td>29. MR. BOWERS: -- a lot of time. And you're only working 40 hours a week, so you're leaving nobody there on weekends, right?</td>
<td>29. MR. BAUGHMAN: Okay. But Morgan &amp; Thornburg.</td>
</tr>
<tr>
<td>32. MR. MUMMERT: Well, on the weekends, I do -- my maintenance guy that's on call has to go</td>
<td>32. MR. BAUGHMAN: Okay. But Morgan &amp; Thornburg.</td>
</tr>
</tbody>
</table>
1. MR. BAUGHMAN: -- Thornburg?
3. MR. BAUGHMAN: Are they listed in the manual as the ones --
4. MR. MUMMERT: They only did the initial on-hands with the -- I guess it would be the boiler operators. Yeah. The attendant, I do.
5. MR. NEVILLE: On G-3, we list training but we don't call out that company specifically. We say "trained and qualified on-site."
6. MR. MUMMERT: Yeah.
7. MR. NEVILLE: So, you know, that training company could change, so we didn't specifically, you know, mention that company.
8. MR. BAUGHMAN: Okay. I'm not familiar with Morgan & Thornburg, so I'm just -- not that I know everybody in the industry --
9. MR. MUMMERT: Right.
10. MR. BAUGHMAN: -- by any stretch, I just haven't been in any communication with them over the years. Has there already been some training put in place? Has there already been training performed?

1. MR. MUMMERT: Yeah. I went over the -- like, the safety features and stuff for attendants and stuff to make sure they know where the basic stuff is, you know, the mercy shutoffs, make sure they know how to activate them, make sure they know the call schedule, who's on call, and, you know, how to activate the alarms, how to shut down the boilers remotely if there's a problem.
2. And when we do the boiler test every morning, we actually have them -- the RTs at the ER shut it down from in there just so they're in the habit of being able to push the button and see what it feels like, what it's going to do. And then, you know, they have to reset it there before we can turn it back on down at the boiler room. So yeah, we do a lot of hands-on with that.
3. MR. BAUGHMAN: So there's been training, but is there a training log that's been filled out?
4. MR. MUMMERT: I have it at the office. Yeah.
5. MR. NEVILLE: Right. So the training log here is just representative. It's not a training log, per se, of the, you know, the active.
6. This is what we will keep if it's approved, not, you know, the active log that they have --
7. MR. MUMMERT: Right.
8. MR. NEVILLE: -- as of today.
9. MR. MUMMERT: And it looks just like this log that's in here, but it's got their names and signatures and dates. And then there's copies of the test that we give them.
10. MR. BAUGHMAN: How long does it take to schedule somebody from Morgan & Thornburg to come in from the time you call them --
11. MR. MUMMERT: I can usually call him and have him there within a few minutes, because he lives right there, within 20 miles of the hospital.
12. MR. BAUGHMAN: Unless he's on vacation or what have you.
13. MR. MUMMERT: True. Yeah. I mean, but they're pretty fast. They've got an office in Jackson now, which they didn't till two years ago.
14. MR. BAUGHMAN: I guess what I'm getting at is that since we've got respiratory therapists that are operating and one calls in for whatever reason and there's somebody else that's going to be put in that position, if they're not trained --
15. MR. MUMMERT: They're not allowed to do it.
16. They have to call me.
17. MR. BAUGHMAN: Okay.
18. MR. MUMMERT: Or whoever's on call, maintenance.
19. MR. BAUGHMAN: Okay. What kind of feed water system do you have, Derrick --
20. MR. MUMMERT: Old leaking one. I don't know. It's a Cleaver-Brooks. I'm in the process of changing it right now as we speak. It's being upgraded.
21. MR. BAUGHMAN: Okay. Their company should be -- hopefully, in the next four to six weeks, actually, start the work.
22. MR. FOX: Good.
23. MR. MUMMERT: And it's going to be a -- and I don't know the name brand of the new one
1. off the top of my head. I've got a copy of it.
2. MR. FOX: Is it a feedwater tank or
3. is it a deaerator?
4. MR. MUMMERT: It's a tank. It's a
5. tank.
6. MR. FOX: A deaerator?
7. MR. MUMMERT: No.
8. MR. FOX: No.
9. MR. BAUGHMAN: The kind you got is a
10. very common one in the industry.
11. MR. MUMMERT: Yeah.
12. MR. FOX: Yeah.
13. MR. ROBINSON: I'm kind of smiling.
14. I couldn't help but look on your checklist and it
15. said, check for leaks.
17. MR. ROBINSON: That's what they
18. meant.
19. MR. MUMMERT: That's why we're
20. replacing it. Yeah. We kept finding that.
21. MR. PISCHKE: Yeah. If there's no
22. leaks, then there's something wrong.
23. MR. MUMMERT: Yeah. It was probably
24. empty.
25. MR. ROBINSON: Derrick, I would

| Page 85 |
| 1. MR. MUMMERT: Yeah. I used to stand |
| 2. inside those, but I can't do that here. |
| 3. MR. BAUGHMAN: Good. Under G-9, or |
| 4. on page G-9, Milan General Hospital Job Description, |
| 5. job title, respiratory therapist. Under the job |
| 6. summary/scope of responsibility, is there anywhere |
| 7. under that job summary/scope of responsibility the |
| 8. boiler -- or the attendants of the boiler? |
| 9. MR. MUMMERT: Not under that, but |
| 10. it's down under -- |
| 11. MR. NEVILLE: Under essential -- |
| 12. MR. MUMMERT: -- the essential |
| 13. functions. |
| 14. MR. NEVILLE: Yeah. |
| 15. MR. BAUGHMAN: I see it under |
| 16. "essential job functions." I don't see it under |
| 17. scope of responsibility. |
| 18. MR. MUMMERT: Right. |
| 19. MR. BAUGHMAN: And so the job |
| 20. functions don't match the scope of responsibility. |
| 22. MR. NEVILLE: We can add -- |
| 23. MR. BAUGHMAN: So I would -- |
| 24. MR. NEVILLE: We can add wording to |
| 25. that as the facility directs. |

| Page 86 |
| 1. prefer -- and I think Chief would agree. I would |
| 2. prefer not to see leaks. Period. |
| 3. MR. MUMMERT: Right. Exactly. But |
| 4. if they don't look, they won't find them, and if we |
| 5. find them, we need to fix them. And we do get steam |
| 6. leaks, you know, from, you know, the -- |
| 7. MR. ROBINSON: Grommets. |
| 8. MR. MUMMERT: -- the grommets and |
| 9. stuff. So that's why it's on there is for them to |
| 10. visually check. I don't want to go down there and |
| 11. see something hissing and not tell me, because then |
| 12. I -- if I'm not there that day, it may go two or |
| 13. three days before I get there and it may already be |
| 14. too late. It could be a matter of tightening up |
| 15. bolts instead of replacing a gasket. So yes, I want |
| 16. them to look for that. |
| 17. MR. BAUGHMAN: How much experience |
| 18. have you got in operating a boiler, Derrick? |
| 19. MR. MUMMERT: The last time I -- |
| 20. well, I've been here five years. Before that, I was |
| 21. in the Coast Guard on an icebreaker. I ran main |
| 22. compulsion boilers, salt water systems, old mud |
| 23. drums and -- |
| 24. MR. BAUGHMAN: A little different |
| 25. than the private sector, but -- |

| Page 87 |
| 1. MR. MUMMERT: Yeah. I used to stand |
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| 3. MR. BAUGHMAN: Good. Under G-9, or |
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| 18. have you got in operating a boiler, Derrick? |
| 19. MR. MUMMERT: The last time I -- |
| 20. well, I've been here five years. Before that, I was |
| 21. in the Coast Guard on an icebreaker. I ran main |
| 22. compulsion boilers, salt water systems, old mud |
| 23. drums and -- |
| 24. MR. BAUGHMAN: A little different |
| 25. than the private sector, but -- |
1. confident at doing this.
2. MR. MUMMERT: I understand.
3. MR. BAUGHMAN: And that's not a
4. dis --
5. MR. MUMMERT: Right.
6. MR. BAUGHMAN: -- on any person, I'm
7. just saying that in the health care environment --
8. it'd be like taking the surgeon and saying, hey, you
9. do a great job, but you're going to need to take
10. care of the boilers, too.
11. MR. MUMMERT: Actually -- I won't go
12. there, but -- I have surgeons thinking they're
13. mechanics sometimes.
14. MR. BAUGHMAN: I understand.
15. MR. MUMMERT: So I'll just let it go
16. at that.
17. MR. BAUGHMAN: I would not feel
18. comfortable in somebody asking me, Dave, by the way,
19. you mind monitoring this heart/lung machine for a
20. few minutes? Okay. Thanks, Derrick.
21. MR. MUMMERT: You're thinking trauma
22. centers. You're thinking -- we're not thinking
23. Milan respiratory. There's a big difference.
24. MR. BAUGHMAN: I'm sure.
25. MR. PISCHKE: I have some mixed

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1. something, we need to understand that they've been
2. trained and that that training has been verified or
3. validated. That -- okay. They understand. They're
4. proficient at whatever they're doing. I mean, if
5. we -- if the person doing it is a trained boiler
6. operator, we know that they've had the proper
7. training and proficiency. When somebody's not, we
8. don't know what they have.
9. MR. NEVILLE: Correct.
10. MR. PISCHKE: And so as long as we
11. have a solid training program and a verification of
12. that training, that they got it, they understand it,
13. they understand what they need to do, they're
14. comfortable with it, so on and so forth, it doesn't
15. really bother me what their other skills are. They
16. may be skilled at a lot of things that, you know,
17. don't come into play. I guess that's my take on the
18. whole thing.
19. MR. BOWERS: And I feel like the same
20. way. You know. If you look at the importance of
21. the job, you're talking about, you know, you've got
22. it 40 hours manned by a trained operator, 120 hours
23. is basically with somebody -- not that a respiratory
24. therapist. I'm sure they could be the best boiler
25. operator there is. The problem is, when it comes

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1. feelings, myself. As I truly understand, you know,
2. the size of an operation can dictate or mandate
3. who -- you know, how many people you -- specialists
4. you can have doing different jobs. And so I can
5. relate to that, and I've been put in those similar
6. situations before. But I still have some concern
7. about the scope of the knowledge that's required.
8. And I guess as long as there's a
9. really sound training plan and a training program
10. and a validation -- or verification of that
11. training, you know, I feel much better about it.
12. Because, you know, I'm sure these folks are, you
13. know, capable enough of learning this information.
14. You know.
15. MR. NEVILLE: Now, when you're
16. talking of the training, do you mean the variance
17. training or training to operate a boiler or both?
18. MR. PISCHKE: Well, whatever they're
19. called upon to do.
20. MR. NEVILLE: Yes.
21. MR. PISCHKE: You know, especially in
22. this --
23. MR. NEVILLE: Okay.
24. MR. PISCHKE: -- in this variance
25. training. But if they're called upon to do

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1. down to saving a life here or operating a boiler, of
2. course, saving a life is a lot more important. You
3. know.
4. And that -- if you had somebody like
5. a janitor, he could throw down a mop and go check
6. the boilers, but you can't throw down a patient
7. and just go check the boilers when you've got
8. alarms going off. It just seems like the most
9. important job they're to do is work on a patient.
10. Definitely boilers are going to be secondary to
11. them.
12. It just scares me that you've got --
13. you know, they have a more important job to do.
14. And even though the boilers are way up there
15. important -- I mean, you could do a lot of damage,
16. kill a lot of people. You know. But if they're
17. working on a patient, they just can't -- you've
18. got alarms going off. It just seems like that is
19. not a good choice to have a respiratory therapist,
20. or anybody who's got to work on patients, checking
21. boilers. That's my opinion. Just --
22. MR. PISCHKE: It wouldn't be the
23. first time -- I mean, that --
24. MR. BOWERS: Oh, no.
25. MR. PISCHKE: -- we've seen this --
MR. BOWERS: No. No.

MR. PISCHKE: -- with nurses or, you know, nurses stations.

MR. BOWERS: Yeah. That's right.

MR. PISCHKE: Things like that.

MR. BAUGHMAN: So I'm just going to interject this, Derrick, because you've got a good background working with the Coast Guard and with propulsion and boilers, I take it, within the coast guard. I feel like you've been put in a position of bringing something to the table that you may not really fall in step with, from the standpoint of safety, but you've been put in a position of saying, I've got to bring this to the --

MR. MUMMERT: Exactly.

MR. BAUGHMAN: Okay.

MR. MUMMERT: Yeah.

MR. BAUGHMAN: And I -- you know, it's easy enough to see, but I thought, you're very intelligent and competent and you have a good background in mechanical operation, i.e. within the boiler end of it. And so to say, Dave, or any of us, yes, I'm doing this because it enhances safety.

MR. MUMMERT: Exactly.

MR. BAUGHMAN: And so, understanding that -- and I understand. For me, it's all about safety. That's why we're here.

MR. MUMMERT: Yes.

MR. BAUGHMAN: And this equipment carries such a potential for catastrophic death, injury, or destruction, and we want to make sure that we attend to all of it and not do this as some kind of get-out-of-jail-free card.

MR. MUMMERT: Yes. I agree.

MR. BAUGHMAN: And so, henceforth the questions, henceforth the -- going through this to a higher degree. And I want to make sure that your input is given on how you might make things different, how you might have ideas of making things better than what we've got presented, because what's presented, I have a hard time wrapping my arms around it.

MR. MUMMERT: A requirement.

MR. BAUGHMAN: Yes. And it puts you in a pickle, and we're basically doing it because of manpower.

MR. MUMMERT: Exactly. That's exactly why we're here.

MR. BAUGHMAN: Yeah. And so understanding that -- and I understand. For me, it's all about safety. That's why we're here.

MR. MUMMERT: Yes.

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MR. MUMMERT: Yeah. I can only tell you the building's been there since 1965, and that's how it's been ever since 1965. And it's -- the reason I found out I had to do this, because I found the old one had expired and that you all approved, and it was the same group of people, nothing's changed. We're still training the same group of people. I mean, I know that's not --

MR. BAUGHMAN: No.

MR. MUMMERT: -- an answer, but that's what I'm dealing with.

MR. BAUGHMAN: I understand.

MR. PISCHKE: There's some relevance to that.

MR. BAUGHMAN: Absolutely.

MR. MUMMERT: Sure.

MR. BAUGHMAN: And you've been doing this and never had any problem?

MR. MUMMERT: Well, I've only been there since 2010.

MR. BOWERS: Okay. Have you had a problem in the last seven years?

MR. MUMMERT: No. No.

MR. BOWERS: And they're doing their checks, the respiratory -- they're doing their checks and --

MR. MUMMERT: Yes.

MR. BAUGHMAN: And this equipment is -- backtracking through our variance identification process, we've identified a lot of variances that are out there, and we've started to make phone calls. And the phone calls are specific in question: What are you doing? And we're finding out that, such as Derrick, he's had a variance, but it's obsolete.

MR. BOWERS: So you've had a variance for a number of years.

MR. MUMMERT: Sure.

MR. BOWERS: And you've been doing this and never had any problem?
1. we've got a failure in the boiler room, describe what happens.
2. MR. MUMMERT: The E-stops, there's one by each exit door coming out of the boiler room.
3. There's only two exits out of the boiler room. When you hit it, no matter which boiler, there's one switch for both boilers, and it kills the field shutoff, which kills also the main board, as well.
4. MR. BAUGHMAN: So it's wired into the gas valves --
5. MR. MUMMERT: Yes.
6. MR. BAUGHMAN: -- themselves?
7. MR. MUMMERT: Yes.
8. MR. BAUGHMAN: Okay.
9. MR. MUMMERT: That was a question that came up in March and I had to go back and verify it.
10. MR. ROBINSON: That's good.
11. MR. BAUGHMAN: Yeah.
12. MR. ROBINSON: That's the code.
13. MR. BAUGHMAN: You're doing -- going back to the computer, calling out -- describe to me how the Hawk system communicates. Does it communicate via the computer?
14. MR. MUMMERT: It feeds the information through the computer so you can do a visual look at everything, but it also calls the phones. It's like a separate system. There's, like, a computer system and a phone system.
15. MR. NEVILLE: Expanded annunciator.
16. MR. MUMMERT: Yeah.
17. MR. ROBINSON: Okay. So it is using that via an Internet-based --
18. MR. MUMMERT: Yeah.
20. MR. MUMMERT: Ethernet, Internet, yeah.
21. MR. NEVILLE: Right. For the phone.
22. Right. For the phone text messages.
23. MR. MUMMERT: Yes.
24. MR. ROBINSON: You've got back-up power for the boiler?
25. MR. MUMMERT: Yes.
26. MR. ROBINSON: A generator?
27. MR. MUMMERT: Yes.
28. MR. ROBINSON: Does it also supply power to the computer?
29. MR. MUMMERT: Yes.
been an issue. And I actually quiz them, too, and does the administrator. We do what's called an environmental care survey where we pick a different department every month and we quiz them. We've got a set list of questions of stuff, and we'll actually quiz them.

And then when it gets to the RT, we'll ask them specific -- how often are you going down there? What are you looking at? Do you know where the emergency stops are and stuff like that.

I'm also the safety officer. So --

MR. BOWERS: Okay.

MR. BAUGHMAN: So you came on in 2010.

MR. MUMMERT: Correct.

MR. BAUGHMAN: You got advised, when, that you needed to put this variance in place?

MR. MUMMERT: I didn't know nothing about a variance until I started doing the -- changing out the boilers, and I had to go with -- getting the approval from Mr. Chapman to do the boilers. And that's when I'm learning. And that --

MR. BAUGHMAN: Okay. So this has only been within recent --

MR. MUMMERT: In the last --

MR. NEVILLE: Yes.

MR. MUMMERT: -- two years --

MR. BAUGHMAN: Okay.

MR. MUMMERT: -- that I've even found out this was required.

MR. PISCHKE: How old was the original variance?

MR. MUMMERT: I think it expired in '98.

MR. ROBINSON: Approximately. Yes.

Our records were really not very good, but the last official date of the origin on the manual said '98.

MR. BAUGHMAN: So when you came on board and started operating, how did we attend to the boilers?

MR. MUMMERT: They'd already had a plan in place. There was a guy who worked there when I took in, he was the senior maintenance guy. He'd been there 38 years. So basically, he was telling me what to do and stuff, because I really didn't know. This is the only hospital I got that has boilers that requires that type of service. Most everything else has got water heaters. So this is the only facility I got that has those boilers. And so my training came from this guy that had been there 38 years.

MR. BOWERS: Okay.

MR. MUMMERT: I don't know that he even knew. I really don't know if he knew.

MR. BAUGHMAN: Okay.

MR. MUMMERT: I can't speak for him.

MR. BOWERS: But how would you operate the boiler on a -- would you check them every 20 minutes or were you checking every four hours?

MR. MUMMERT: They were doing four hours.

MR. BOWERS: Four hours. So you know, you were operating under a variance --

MR. MUMMERT: Yes.

MR. BOWERS: -- even though you didn't know you had a variance.

MR. MUMMERT: That's correct.

MR. BOWERS: But you were operating as you had a variance.

MR. MUMMERT: Yes.

MR. ROBINSON: Until we notified him --

MR. MUMMERT: Right.

MR. BOWERS: Yeah.

MR. ROBINSON: -- that he was in violation.

MR. PISCHKE: Is it safe to assume that if they would have had continuance of that variance from -- as we went along --

MR. ROBINSON: Predecessors?

MR. PISCHKE: I'm sorry?

MR. ROBINSON: From my predecessors?

MR. PISCHKE: Yeah. Would --

MR. ROBINSON: They'd be okay.

MR. PISCHKE: Would we be asking these same questions? I guess, that's --

MR. BAUGHMAN: Yeah. I think so.

MR. PISCHKE: Would we --

MR. ROBINSON: That's a good question.

MR. MUMMERT: Well, I put new boilers in, so it would have had to have been redone anyway.

MR. PISCHKE: Yeah.

MR. BAUGHMAN: Well, I'm just wondering if that original variance had the same personnel monitoring, RE (sic) -- a respiratory therapist --

MR. MUMMERT: Yeah. I used them when
1. I drew the first one up in March that y'all tore me up on (verbatim).
2. MR. PISCHKE: So it did -- yeah.
3. MR. BAUGHMAN: Okay. Interesting.
4. MR. PISCHKE: Yeah.
5. MR. ROBINSON: I've got --
6. MR. PISCHKE: Go ahead.
7. MR. ROBINSON: Just two questions.
8. MR. ROBINSON: Page 8.
11. MR. MUMMERT: Yeah. Well --
12. MR. ROBINSON: -- a true statement?
13. MR. MUMMERT: -- what we're calling an attendant is the RT or the maintenance.
14. MR. NEVILLE: Well --
15. MR. ROBINSON: That's not a true statement.
17. MR. MUMMERT: I'm sorry, where was that again?
18. MR. ROBINSON: But as --
19. MR. NEVILLE: That's the rub here, I think is that --
20. MR. MUMMERT: As it stands --
21. MR. ROBINSON: -- really a true statement. It needs to be cleaned up.
22. MR. MUMMERT: That's right. As it is right now.
23. MR. ROBINSON: So it's not true.
24. MR. MUMMERT: That's right. As it is right now.
25. MR. ROBINSON: Okay. So you would have to clean it up some. Okay.
1. MR. ROBINSON: Okay. So are you --
2. your steam is condensate and return. So it's --
3. MR. MUMMERT: Yes.
4. MR. ROBINSON: -- a 24/7 continuous loop. Okay. No more questions.
5. MR. PISCHKE: Anyone else?
6. MR. ROBINSON: Go ahead, Dave. I defer.
7. MR. PISCHKE: Go ahead, Dave. We know you have at least one more in you.
8. MR. BAUGHMAN: No. I'm just -- for one, I really respect Derrick and --
10. MR. BAUGHMAN: -- the position you're in, the honesty, the candor. You're trying to do everything you can with what you've got, and I'm impressed by that, Derrick.
11. MR. BOWERS: Yeah. I think you did a good job and you're controlling it pretty good.
12. MR. BAUGHMAN: What I don't want to do is to be having a discussion down the road on any kind of incident and thinking about this discussion and going, gosh -- you know. But everybody's doing what they can and you bring to the table that the RT, in your estimation, is competent and that you've got competent maintenance personnel.
13. MR. MUMMERT: The general tech in Humboldt's been there 14 years. The -- one of the senior techs has been there 10. The other one's been there nine.
14. MR. BAUGHMAN: And the part-time?
15. MR. MUMMERT: Oh. That was the part-time. The one senior tech's new. He's been there less than a year or right at a year now.
16. MR. BAUGHMAN: Okay. I'm good.
17. MR. PISCHKE: How about the inspector? I mean, do we have any more input from inspectors that we can --
18. MR. DICKERSON: Yeah. I'll say something.
19. MR. BAILEY: Identify yourself.
20. MR. DICKERSON: I'm Richard Dickerson, a State boiler inspector. These are in my area.
21. West Tennessee Health Care is the biggest hospital between Memphis and Nashville. It's located in Jackson. And this facility in Milan, it's probably 15 miles. So any major incidents, they go to Jackson. And this is just, I would call, a little, minor hospital. You know.
22. And I mean, they don't do major surgeries. Everything is brought to Jackson. You know. And I mean, it's a real small hospital.
23. You know. And basically, that's about it.
24. MR. BAUGHMAN: Is there any surgery that's performed there?
25. MR. MUMMERT: They have -- occasionally do surgery. Yeah. They do a lot of Gls, mostly Gls.
26. MR. BAUGHMAN: So they use the boilers -- do they have an autoclave that their --
27. MR. MUMMERT: Yes.
28. MR. BAUGHMAN: -- sterilization --
29. MR. MUMMERT: Yes.
30. MR. BAUGHMAN: Okay.
32. MR. BAUGHMAN: So if there was a boiler alarm, the one E-stop's going to kill both boilers. So if we're in a position of sterilization or in the autoclave, it's going to shut down that process --
33. MR. MUMMERT: Yeah. And it records -- the sterilizer records any shutdowns, whether it finishes normally or it doesn't finish normally. And then if it doesn't finish normally, they have to recycle it, do it again. We have a process in place for all that.
34. MR. BAUGHMAN: If both boilers are shut down, how would the tech identify what the problem is?
35. MR. MUMMERT: If they shut down? Both of them? It's got an alarm panel. It'll tell you.
36. MR. BAUGHMAN: Okay.
37. MR. MUMMERT: And they also print it out. It shows up -- certain alarms also show up on the -- like the other day we had a flame failure, and it'll actually say that on the phone when you get a text.
38. MR. BAUGHMAN: What if there's an alarm that doesn't lock the boiler out? A primary low-water cutoff goes out on alarm.
39. MR. MUMMERT: Well, I've never seen that happen.
1. MR. BAUGHMAN: Resets itself. It's going to alarm typically before the secondary does.  
2. It goes down, the boiler goes off an alarm -- I guess my question is, which low-water cutoff is the alarm tied to that causes a person to hit the alarm? In other words, the primary low-water cutoff is in the control circuit. Both of them have alarm circuits in it, but which one is the alarm hooked up to?  
3. MR. MUMMERT: I wouldn't know without going back and researching it.  
4. MR. BAUGHMAN: Okay. I'd just be interested, because what I've seen is the primary low-water cutoffs will shut the boiler down, the boiler goes into an alarm, if the alarm's hooked up to it.  
5. MR. MUMMERT: Correct.  
6. MR. BAUGHMAN: If it's hooked up, the boiler fills back up with water from whatever the deal is, the alarm goes away. The boiler's gone off an alarm, but it hasn't tripped a manual reset. And so what I'm wondering is, is just the capabilities of going back in, figuring these things out, but taking that a step further through discussions, I'm always interested in what alarms are actually hooked up that dictate the manual reset, because some alarms don't.  
7. MR. MUMMERT: Right.  
8. Mr. BAUGHMAN: And so if an alarm goes off, it's gone off there at the remote station and then the alarm goes away, I'm just wondering how the attendant would view that? If they would say, well, that was odd, or if they would go ahead and shut anything down or what have you.  
9. MR. MUMMERT: If it went off at the attendants station, it also went off on five telephones at the same time. Somebody better be calling, because I -- the first thing I do is call whoever's on call and say, did you check this?  
10. MR. BAUGHMAN: Even if it reset itself --  
11. MR. MUMMERT: Yes.  
12. MR. BAUGHMAN: -- without having to --  
13. MR. MUMMERT: I want to know why.  
15. MR. MUMMERT: Yeah. I'm scared of boilers, too.  
16. MR. BAUGHMAN: Okay.
1. else know enough to shut it down?
2. MR. MUMMERT: We've got a sign with
3. an instruction on it, but the normal procedure is,
4. immediately call the RT, if it's after hours.
5. They'll need to call them and, at the same time, you
6. know, shut it down. If they can't, the RT will go
7. down and then see what caused it.
8. MR. PISCHKE: I mean, is that
9. alarm -- I guess --
10. MR. NEVILLE: Yeah. It emits a loud
11. alarm.
12. MR. PISCHKE: -- obvious enough that
13. anybody walking by would know to --
14. MR. MUMMERT: I've got an audible
15. alarm in the ER. There's an audible alarm on the
16. boiler room. Between the two, it's 192 feet. No
17. matter where you are on that first floor, you're
18. going to hear an alarm. It's loud.
19. MR. BAUGHMAN: Is the reset -- do you
20. have a reset capability off of the computer screen
21. itself?
22. MR. MUMMERT: No.
23. MR. BAUGHMAN: Okay. Everything's
24. hard --
25. MR. MUMMERT: You'd have to go down
1. to the boiler.
2. MR. BAUGHMAN: And at the nurses
3. station, how is that reset also, because they also
4. have to --
5. MR. MUMMERT: They have to flip a
6. switch -- the toggle switch will turn it back on,
7. but they cannot turn it on from there (verbatim).
8. That just gives them the power to go back -- because
9. when it goes down, if it's off, they have to call
10. maintenance in. There's no getting around that.
11. Whoever's on call will have to come in and start it
12. back up. They have to check it. They turn it back
13. on, but it has to be turned on in the ER before they
14. can even manually start it at the boiler itself.
15. MR. BAUGHMAN: So in that station,
16. you said, toggle switch. Is there one for each
17. boiler?
18. MR. MUMMERT: Yes.
19. MR. BAUGHMAN: But the E-stops kill
20. both boilers.
21. MR. MUMMERT: In the remote place,
22. they each have a single button. The boiler room has
23. one for both boilers.
24. MR. NEVILLE: At the exit.
25. MR. MUMMERT: The remote attendant
1. station has one, and it's labeled boiler one, boiler
2. two, and they have an indicator light which one's
3. on.
4. MR. BAUGHMAN: So the only places
5. we've got E-stops at are at the boiler room and
6. where else?
7. MR. MUMMERT: You've got one at each
8. exit in the boiler room, and they can kill them both
9. at the emergency room.
10. MR. BAUGHMAN: Okay. But the
11. emergency room --
12. MR. MUMMERT: Has one --
13. MR. BAUGHMAN: -- kills both boilers
14. or one for each boiler?
15. MR. MUMMERT: One for each boiler.
16. MR. BAILEY: Excuse me.
17. MR. BAUGHMAN: Yes, sir.
18. MR. BAILEY: Y'all try not to talk
19. over each other. Be considerate of the court
20. reporter. And plus, it makes a cleaner record.
21. MR. BAUGHMAN: Thank you, brother.
22. Sorry.
23. So what I'm getting at is a little
24. disparity on the shutoffs. In other words, if
25. there's an alarm at the remote station, i.e., the
1. nurses station, they're going to shut off or they
2. have the capabilities of shutting off either
3. boiler, but it's not going to shut off both
4. boilers.
5. MR. MUMMERT: Correct.
6. MR. BAUGHMAN: Okay. Is that how you
7. would like it?
8. MR. CHAPMAN: That's the way it is.
9. MR. BAUGHMAN: Okay.
10. MR. CHAPMAN: Yeah. And that the
11. egress for one E-stop at the door has got to kill
12. both boilers. But in the remote station, it could
13. be individual ones.
14. MR. BAUGHMAN: And why is that?
15. MR. CHAPMAN: Because normally, if
16. it's something that's happened, it's an individual
17. boiler.
18. MR. BAUGHMAN: Uh-huh.
19. MR. CHAPMAN: But if it's at the
20. boiler room, if something goes on, you want to kill
21. everything in it.
22. MR. BAUGHMAN: But yet, the
23. attendant, when he goes down, the boiler's off, is
24. he not also disabling, or does he hit the E-stop in
25. there in the boiler room or are we just only
1. disabling the one in the remote station?
2. MR. CHAPMAN: Okay. For the remote station.
3. MR. BAUGHMAN: Uh-huh.
4. MR. CHAPMAN: Okay. That is set up for -- of course, they're just monitors or whatever name they're calling them.
5. MR. BAUGHMAN: Okay.
6. MR. CHAPMAN: Okay. It is for monitoring the boilers. You know. Normally, when they get an alarm, it's a certain boiler. So they can hit that button to isolate that boiler.
7. MR. BAUGHMAN: Okay.
8. MR. CHAPMAN: But at the -- from -- the CSD-1 states that it must be at the door, one E-stop to kill all boilers.
9. MR. BAUGHMAN: Okay.
10. MR. CHAPMAN: Which is not part of the boiler variance.
11. MR. BAUGHMAN: Okay. The --
12. MR. MUMMERT: Yes.
13. MR. FOX: All right.
14. MR. FOX: The monitoring station that they have is not, per se, Dave, an E-stop. The -- that boiler can be running and the nurse could flip that switch if they want to. That would not shut that boiler off unless that boiler goes out on alarm first and sends the signal. That's normally how that works.
15. MR. MUMMERT: Yes.
16. MR. FOX: Do you follow what I'm saying?
17. MR. BAUGHMAN: I do.
18. MR. BOWERS: And once they shut that off, it's pretty well locked out --
19. MR. MUMMERT: Correct.
20. MR. BOWERS: -- until you get there.
21. MR. MUMMERT: Yes.
22. MR. BOWERS: And once they hit that button, it's --
23. MR. MUMMERT: It has to be somebody from maintenance.
24. MR. BOWERS: To turn it back on.
25. MR. PISCHKE: Do we have enough information and knowledge on their program? I guess I'd like to emphasize that this -- and correct me if I'm wrong. This is more or less a continuance of their old variance with the modification of the boilers and modifications to their program. It's --

---

1. is that correct? Is that what we're --
2. MR. NEVILLE: That's what we're presenting. Yes.
3. MR. PISCHKE: Presenting. So it's --
4. MR. BAUGHMAN: Well, it states it's a new variance.
5. MR. NEVILLE: Right. This -- I mean, this is -- they're new boilers, so it's considered a new variance.
6. MR. PISCHKE: Okay.
7. MR. NEVILLE: The history is that they've had a previous variance, but it -- I mean, it has to be classified as a new variance, because we're not tracking changes from an old variance.
8. MR. NEVILLE: The history is that they've had a previous variance, but it -- I mean, it has to be classified as a new variance, because we're not tracking changes from an old variance.
9. MR. ROBINSON: Yeah. We couldn't even find the original manual.
10. MR. PISCHKE: But all of the players in this have been abiding by this historically, correct?
11. MR. NEVILLE: Yes.
12. MR. PISCHKE: -- historic -- correct?
13. MR. NEVILLE: Yes.
14. MR. MUMMERT: Y es.
15. MR. PISCHKE: Okay. Any other discussions, questions?
16. MR. BOWERS: I guess I'd motion to close discussion.
17. MR. PISCHKE: The motion, I guess, would be to approve with -- I guess I'll entertain a motion to approve with the changes --
18. MR. NEVILLE: With modifications.
19. Right. One of the changes, I believe, needs to happen is to add the respiratory therapist as a
boiler attendant, as well. Not just the remote
station, but as a boiler attendant. And, you know,
with monitoring duties. So on page 7, I propose
that we add the respiratory therapist there, because
for those hours that they would be a boiler
attendant, that would make page 8, number 5, you
know, a boiler attendant should be on site at all
times. That makes that statement accurate, as well.

So I believe that's one of the
changes that needs to be implemented for this to
be accurate. Yes, sir.

MR. BAUGHMAN: So James, what you're
saying is that, not only for the purpose of the
manual but also by Milan General Hospital, your
hospital is going to need to make that change in the
description. Not just the manual itself, but the
hospital needs to --

MR. NEVILLE: Right.

MR. BAUGHMAN: -- be on board with
that -- this is on page 7, boiler attendant
procedures, personnel type.

MR. NEVILLE: Right.

MR. BAUGHMAN: So you'll need to get
approval from the hospital itself that that's --

MR. PISCHKE: You've done a very
good --

MR. MUMMERT: So --

MR. PISCHKE: -- at preparation and
addressing our concerns.

your comments, I believe, on G-9 where you talked
about the respiratory therapist and their job
summary.

MR. PISCHKE: Yeah. Right here.

Yeah.

MR. NEVILLE: And in order to do
that, as far as -- we need to add them as a boiler
attendant. They may only have monitoring duties,
you know, every four hours, but --

MR. PISCHKE: So that's there.

MR. NEVILLE: -- their training needs
to reflect that and their scope of responsibility.
So that's what we're presenting.

MR. PISCHKE: Any other specific
revisions that we're going to call out to this?

MR. NEVILLE: That's what we have
right now. So --

MR. PISCHKE: Okay. Do I have a
motion to approve with the manual revisions that
were stated?

MR. BAUGHMAN: So moved.

MR. PISCHKE: Do I have a second?

MR. FOX: I'll second.

MR. PISCHKE: Okay. All those in
favor, say "aye."

MR. BOWERS: Aye.

MR. BAUGHMAN: Aye.

MR. PISCHKE: Aye.

MR. FOX: Aye.

MR. PISCHKE: No? Item passes for
affirmative.

MR. BAUGHMAN: Derrick, good job.

MR. NEVILLE: Thank you.

MR. MUMMERT: I feel like I just had
a baby.

MR. PISCHKE: You -- well, you did.

You kind of did.

MR. BAUGHMAN: Yeah. What are you
going to name it?

MR. MUMMERT: Thank you all. I
appreciate your patience. And like I said, I've
been trying to deal with this monster, and I hope to
make everybody happy with the outcomes of it. And
we'll put a good training together for everybody,
not just --

MR. PISCHKE: Okay. All those in
favor, say "aye."

MR. NEVILLE: Thank you.

MR. MUMMERT: So thank you all.

MR. PISCHKE: Thank you. Okay. The
next item on the agenda is Item 17-14, Ergon
Terminaling, Inc. Do we have representatives?

MR. PASTOREK: Yes, sir.

MR. PISCHKE: Please identify
yourselves and present your case, please.

MR. PASTOREK: Sure. Joel Pastorek
with Ergon.

MR. LAUDERDALE: Marc Lauderdale,
Ergon.

MR. PASTOREK: So good morning. I
think all of you have a copy of the letter and
attachments that we sent. We have sort of a unique
situation, I guess, in that, we're not discussing a
steam boiler today. We're talking about a thermal
fluid heater.

So Ergon operates a bulk storage
facility in Chattanooga. We store products like
asphalt, that require heat, in bulk storage tanks.
Our method for heating is to use a thermal
fluid heater. In this instance, we're discussing
a Hopkins Volcanic Heater, which is -- was
originally manufactured in 1977. When we --

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1. MR. PISCHKE: Excuse me. I'm sorry.
2. MR. PASTOREK: Uh-huh.
3. MR. PISCHKE: I failed to ask if
4. there was --
5. MR. BAILEY: And I failed to remind
6. you. So I share --
7. MR. PISCHKE: If there are any
8. conflicts in -- okay. Sorry about that.
9. MR. PASTOREK: No worries.
10. MR. PISCHKE: Please proceed.
11. MR. PASTOREK: So Ergon --
12. MR. PISCHKE: Thank you.
13. MR. PASTOREK: -- constructed this
14. facility in 1977. This unit was installed at that
15. time. We have since replaced the pressure-retaining
16. portion of the vessel in 2001. That unit is a
17. 6 million BTU thermal fluid heater. It is -- the
18. pressure tank portion was designed per ASME. It has
19. an S stamp. It's rated for 150 PSI at 600 degrees
20. Fahrenheit.
21. We operate it below the temperature
22. rating and pretty well below the pressure rating,
23. as well. The deadhead pressure for the system is
24. about -- a little less than 100 PSI. So we
25. operate it below the pressure, below the

1. temperature.
2. Generally, if you're familiar with a
3. system like this, it's actually an open system.
4. It's atmospheric. There's an expansion tank
5. that's part of the system that allows for the oil
6. to expand. All of the product that flows through
7. the heater is in liquid state. It's not elevated
8. in temperature above the boiling point and there's
9. no vapor. So as I said, it's sort of an open
10. system, open atmosphere and vented. So we
11. circulate the oil through the heater.
12. We were made aware -- I guess it's
13. been inspected through the years by a third party.
14. We have Hartford Steam Boiler, who performs our
15. inspections. We were made aware last year that
16. they were unable to locate a National Board Number
17. on the unit. And so that kind of sent us into an
18. inspection, just trying to verify whether or not
19. it had fallen off or something like that, because
20. we'd never been made aware of the issue before.
21. As part of that inspection, we
22. contacted the manufacturer, who confirmed that
23. when it was constructed, that it was not -- there
24. was no National Board registration. So we're in
25. the interesting situation that we have a unit that

1. was designed and installed with an R stamp, per
2. ASME code, but there was not a registration
3. process for the National Board associated with it.
4. So we are here today requesting that
5. we use the manufacturer's number for the unit in
6. lieu of a National Board Number for a Tennessee
7. Special.
8. MR. PISCHKE: Okay. Yes. I'd like a
9. motion to discuss.
10. MR. BAUGHMAN: So moved.
11. MR. FOX: I'll second.
12. MR. PISCHKE: Second? I went
13. through -- I reviewed this, and I'm just trying to
14. understand. The original vessel was registered with
15. the State --
16. MR. PASTOREK: No.
17. MR. PISCHKE: -- was not -- was never
18. registered with the State?
19. MR. PASTOREK: No, sir.
20. MR. LAUDERDALE: It's registered with
21. the State, not registered with the National Board.
22. MR. PISCHKE: I'm sorry.
23. MR. LAUDERDALE: It's had a Tennessee
24. Number.
25. MR. PISCHKE: It's had a Tennessee

1. Number.
2. MR. PASTOREK: Yes.
3. MR. PISCHKE: Okay. So --
4. MR. LAUDERDALE: There's an old
5. Tennessee Number and a new Tennessee Number.
6. MR. PASTOREK: Yeah.
7. MR. PISCHKE: Okay. So the vessel
8. had a Tennessee Number. The replacement part that
9. was built under ASME Section I did not have a
10. National Board Number associated with that either,
11. right?
12. MR. LAUDERDALE: Correct.
13. MR. PASTOREK: That's correct. It
14. does have a Tennessee Number --
15. MR. PISCHKE: Okay.
16. MR. PASTOREK: -- but it does not
17. have a National Board Number.
18. MR. PISCHKE: Okay. Okay.
19. MR. ROBINSON: So the original vessel
20. that you had did not have a National Board Number.
21. MR. PASTOREK: That's correct.
22. MR. ROBINSON: And then you replaced
23. the internals with a coil, for the sake of
24. discussion --
25. MR. PASTOREK: Yes, sir.
1. MR. ROBINSON: -- with a like coil that also did not have a National Board Number.
2. MR. PASTOREK: That's correct.
3. MR. ROBINSON: But somewhere during that period when it was installed originally, it was given a Tennessee unique number, serial number, on the original installation.
4. MR. LAUDERDALE: A Tennessee license number.
5. MR. PISCHKE: Yeah.
7. MR. PISCHKE: That's what I was trying to clarify. And was it always, I guess, a State Special, then or a --
8. MR. CHAPMAN: No.
9. MR. PASTOREK: That's something we haven't been able to show. We kind of went back and looked through our files to see if we could find anything or something from an inspection report that would indicate that, but we couldn't find anything to that effect. I'm not sure how it --
10. MR. CHAPMAN: You know. I don't -- I'm the chief. Normally, in that record that we looked at, it had a National Board Number on it of 33. Okay? When they tried -- they were discussing with them that they could contact the National Board to get a data plate on it. Well, with that number that's on our record that we looked at, it had a National Board Number of 33. I don't know who put that number on there, but there's -- the National Board says, they don't have any record of it.
11. So that's where we're at right now is it has a Tennessee Number with the National Board number of 33, but 33 is not a good number.
12. MR. BOWERS: Do you think, mistakenly, it would have originally registered -- it should have been registered as a Tennessee Special from day one?
13. MR. CHAPMAN: I don't know, because that --
14. MR. PISCHKE: You can't answer that.
15. MR. BOWERS: It's registered as a P-4, so it's just a part of a boiler, basically. It wouldn't have a National Board Number, correct?
16. MR. PISCHKE: Well, oftentimes, parts do have --
17. MR. BOWERS: Oh, yeah.
18. MR. PISCHKE: -- national Board Numbers.
19. MR. ROBINSON: Yes, they do.
20. MR. PISCHKE: But in this case, neither the parent vessel or the replacement part have a National Board Number that we know of.
21. MR. CHAPMAN: That's true.
22. MR. PISCHKE: Okay.
23. MR. BOWERS: Yes.
24. MR. CHAPMAN: It's registered as a P-4, so it's just a part of a boiler, basically. It wouldn't have a National Board Number, correct?
25. MR. PISCHKE: Well, oftentimes, parts do have --
26. MR. BOWERS: Oh, yeah.
27. MR. PISCHKE: -- national Board Numbers.
28. MR. ROBINSON: Yes, they do.
29. MR. PISCHKE: But in this case, neither the parent vessel or the replacement part have a National Board Number that we know of.
30. MR. CHAPMAN: That's true.
31. MR. PISCHKE: Okay.
32. MR. BOWERS: Yes.
33. MR. CHAPMAN: It's registered as a P-4, so it's just a part of a boiler, basically. It wouldn't have a National Board Number, correct?
34. MR. PISCHKE: Well, oftentimes, parts do have --
35. MR. BOWERS: Oh, yeah.
36. MR. PISCHKE: -- national Board Numbers.
37. MR. ROBINSON: Yes, they do.
38. MR. PISCHKE: But in this case, neither the parent vessel or the replacement part have a National Board Number that we know of.
39. MR. CHAPMAN: That's true.
40. MR. PISCHKE: Okay.
1. MR. LAUDERDALE: He is no longer in business.
2. MR. PASTOREK: They're not in business. No.
3. MR. PISCHKE: Okay.
4. MR. BAUGHMAN: So Roessing Montgomery Company is no longer in business?
5. MR. LAUDERDALE: That is my understanding.
6. MR. BAUGHMAN: That's your understanding. So it was manufactured by Roessing Montgomery Company out of Pittsburgh for the Volcanic Heater Company out of Alliance, Ohio. Ohio being where our National Board --
7. MR. ROBINSON: Resides.
8. MR. BAUGHMAN: -- actually is located. My concern is that it's gone through installation, repair through the R stamp procedure and this is just now coming into play.
9. I noticed through -- and we've got two thermal fluid heaters. Is the other thermal fluid heater under the same conditions or is it just the one?
10. MR. PASTOREK: No. It's just the one. We have a National Board Number for it.

11. MR. BAUGHMAN: Is the other heater the same manufacturer?
12. MR. PASTOREK: It's not. It's a different brand.
13. MR. BAUGHMAN: Got you. I notice under the Certificate of Boiler Inspection, the pressure allowed for this Boiler Number T10655 -- the pressure allowed is the 300, but on one inspection where it expired in 2002, the safety valve was set at 50, and the next go-around -- in a word, expired on the next page in 2003, the safety valve has been changed to 125. Being that we've got an expansion tank, does that have a nitrogen blanket on it?
14. MR. PASTOREK: No, sir.
15. MR. LAUDERDALE: No, it's not.
16. MR. BAUGHMAN: No. It's just to atmosphere.
17. MR. PASTOREK: Yes, sir.
18. MR. BAUGHMAN: Okay. Have you had any problems with oil degradation?
19. MR. PASTOREK: We have replaced the oil. Yes. We experience that over time, but it's -- it can go for pretty extended periods, 10, 15 years, depending on the plant and the operation.

1. MR. BAUGHMAN: Are both these thermal fluid heaters on the same system? In other words, one being a back-up to the other.
2. MR. PASTOREK: They are part of the same system. Yeah. They don't necessarily back each other up, but they can flow through the same network of piping.
3. MR. BAUGHMAN: They're on the same manifold on circulation.
4. MR. PASTOREK: Yes.
5. MR. BAUGHMAN: And they both work off the same expansion tank?
6. MR. PASTOREK: Yes.
7. MR. ROBINSON: Same pressure.
8. MR. PASTOREK: Same pressure?
9. MR. ROBINSON: Pressures.
10. MR. PASTOREK: The pumps are set up to where we have an orifice and they -- as far as the 150-pound -- or is that what you're asking? The rating of the unit or the operating pressure?
11. MR. ROBINSON: I'm verifying on two manifold -- one manifold, two boilers. One boiler higher than the other boiler, naturally, will push through.
12. MR. PASTOREK: I understand.
13. MR. ROBINSON: Are you rating them at the same pressure or --
14. MR. LAUDERDALE: The output pressure has been balanced between the two units.
15. MR. ROBINSON: And protected with a safety valve?
16. MR. LAUDERDALE: Yes, sir.
17. MR. BAUGHMAN: The Certificate of Boiler Inspection shows a pressure allowed of 300 PSI.
18. MR. BAUGHMAN: I'm not sure why they -- I noticed that. I noticed the inspector put that. I'm not sure why they put it. I mean, it's clearly stamped for 150 -- and we don't operate anywhere near that but --
19. MR. BAUGHMAN: Well, not only is it not operated at that, but what is it certified to?
20. What is the construction of that unit certified to?
21. MR. PASTOREK: I would have to go off of the S stamp data plate and say 150 pounds at 600 PSI.
22. MR. PISCHKE: I had wrote it was at 225. So --
MR. BAUGHMAN: Yes. So it would be a 150 rated --

MR. PASTOREK: Yes, sir.

MR. BAUGHMAN: -- unit. And so there needs to be a correction to our --

MR. ROBINSON: Yeah. Absolutely.

MR. BAUGHMAN: -- certificate.

MR. PASTOREK: For the inspection.

Okay.

MR. BAUGHMAN: I'd be interested in the other unit, also, since they're both on the same manifold. And I know that it's not part of this discussion.

MR. ROBINSON: Yeah. Absolutely.

MR. BAUGHMAN: -- to clarify something, though. It's a little different from a -- and you guys probably understand this completely. But it's a little different from a typical boiler situation when you can have the boilers actually fighting each other. In this case, you're pumping fluid through a coil. Ultimately, that goes to the heater. But in this particular case, we have the pumps set up to where they're identical with the orifices that are controlling the flow. So they -- fighting each other would really just result in more flow going into the manifold.

It's not a --

MR. ROBINSON: Right.

MR. BAUGHMAN: Just to clarify something, though. It's a little different from a typical boiler situation when you can have the boilers actually fighting each other. In this case, you're pumping fluid through a coil. Ultimately, that goes to the heater. But in this particular case, we have the pumps set up to where they're identical with the orifices that are controlling the flow. So they -- fighting each other would really just result in more flow going into the manifold.

MR. PASTOREK: I'm not familiar with the specific information about our valve. I mean, again, our system is an open system to where it's atmospheric. So if there is -- one, if there's a pressure buildup in the line, you're going to get a -- to where it prevents flow, then you're going to get a high temperature which is going to shut down the unit. And then if you don't, then you just have flow going through the system. And if there's any sort of upset condition, then you have atmospheric relief, which then allows it to just vent, basically.

MR. ROBINSON: So it's vented? The system's vented to atmospheric?

MR. PASTOREK: That is correct.

MR. ROBINSON: That's correct. At the expansion tank. Yes, sir.

MR. BAUGHMAN: It's a little different of a system.

MR. CHAPMAN: Yeah.

MR. ROBINSON: It's very unique.

MR. BAUGHMAN: Yeah.

MR. ROBINSON: That atmosphere.

MR. BAUGHMAN: Typically, there's a blanket on the top to keep the oil -- if you get any water in the system, it gets nasty. When you replace and put oil in the system, it'll puke. You'll get --

MR. PASTOREK: Moisture.

MR. BAUGHMAN: -- moisture and moisture in the thermal fluid. Of course, the thermal fluid operates at a higher temperature without pressure --

MR. ROBINSON: Right.

MR. BAUGHMAN: -- and the water gets to be an issue. But air is an issue on an atmospheric system, and that's where the oil can degrade over time. So some of these systems have a nitrogen blanket over the top of them.

MR. ROBINSON: Thank you.

MR. BAUGHMAN: You bet. One issue that I've got is it's gone through a repair, which has a National Board Repair stamp from the repair company, which was Boiler Heat Exchange Systems, which got bought out by Ivan Ware. And in that whole process of doing the repairs, we've got the data tag in here, but do we have the R-1 --

MR. PISCHKE: I was going to ask that.

MR. BAUGHMAN: -- in here?

MR. LAUDERDALE: I do not have a copy
1. of the R-1.
2. MR. BAUGHMAN: Does anybody have a
3. copy of the R-1?
4. MR. LAUDERDALE: Unless I am aware,
5. we may have it.
6. MR. BAUGHMAN: Okay.
7. MR. LAUDERDALE: They may not. I
8. don't know.
9. MR. BAUGHMAN: Okay. So a code
10. repair has been performed. And we're looking at
11. this, evaluating it without that documentation being
12. here, which should be an integral part of what we're
13. looking at. And during that repair process, it
14. seems to me that the repair company would have made
15. some note at that time that there was not a NB
17. MR. PISCHKE: Would the State of
18. Tennessee have a record of this repair?
19. MR. CHAPMAN: I haven't found it.
20. MR. PISCHKE: Okay.
21. MR. CHAPMAN: Because like I was
22. looking up -- I was talking to a gentleman on it and
23. trying to find the information on it and I couldn't
24. find anything on it.
25. MR. PISCHKE: Okay.

1. MR. BOWERS: One note, the repair
2. that was done was done in '01, correct?
3. MR. PASTOREK: Yes, sir.
4. MR. BOWERS: The P-4 says that the
5. bundle -- new bundle was put in -- after that. So
6. the repair wouldn't have been on the
7. pressure-retaining object, anyhow. Correct? Am I
8. looking at it wrong. It was signed off in '03, so
9. that repair was probably -- if the coil is the
10. pressure-retaining object, the repair actually was
11. not done on this coil, correct? Because the stamp
12. says -- the tag says the repair was done in '01, so
13. it wasn't done on this coil. This coil wasn't made
14. until '03. So there wouldn't have been an R-1,
15. unless there's been a repair on this coil.
16. MR. BAUGHMAN: The coil that I show,
17. Harold, was 2001.
18. MR. ROBINSON: Yeah.
19. MR. BOWERS: Well, it says here,
20. May --
21. MR. ROBINSON: It could have been --
22. MR. BOWERS: Okay.
23. MR. ROBINSON: That could have been
24. assembly expires.
25. MR. BOWERS: '01. Okay. It could
1. pipe on the first wrap and having 14 groove weld.
2. And they don't -- other parts -- they talk about the
3. heating coil, and that's it.
4. MR. PISCHKE: And that's it.
5. MR. ROBINSON: Okay. Okay. That
6. piping. You're right. They did not put the flanges
7. on it. That's why the stamp is there.
8. MR. PISCHKE: Yeah. They welded it
9. on.
10. MR. BAUGHMAN: Vertical or a
11. horizontal unit?
12. MR. PASTOREK: It's horizontal.
13. MR. BAUGHMAN: Okay. Has -- Steve
14. Alexander's still the current inspector with ARISE.
15. Has he been contacted as far as having any possible
16. data?
17. MR. PASTOREK: We -- the only -- I'm
18. trying to think of who we've spoken with related to
19. that. But we've been dealing with a representative
20. from Hartford Steam Boiler. And I think his name is
21. Scott Brown (phonetic), and he did not have any
22. record or copy or photos of an old -- he did provide
23. inspection history since we installed the unit
24. and the replacement coil. And there was no -- there
25. were no references to it or attachments or anything

1. like that.
2. MR. BAUGHMAN: And I know Scott is
3. fairly new with Hartford, so I don't see any of
4. his -- any communications on here from himself, even
5. through any of the previous records. But I was just
6. wondering if -- because Steve Alexander with ARISE,
7. which was the insurance inspection -- there would
8. have been an AI at that time with this R stamp
9. repair, and I don't know who the AI was, but the AI
10. may also have some documentation, because they're an
11. intimate part of this repair equation.
12. But we're lacking documentation on
13. the repair, which is a concern. And we've got the
14. P-4, which is a partial data report for the coil
15. itself, but we're lacking the supporting
16. documentation for the coil. And I'm just trying
17. to think of how we can get it for analyzation.
18. MR. ROBINSON: Did you try to go back
19. to ARISE and ask them for documentation?
20. MR. PASTOREK: We went back to Ivan
21. and Son.
22. MR. ROBINSON: Who?
23. MR. PASTOREK: Ivan and Son was the
24. company that --
25. MR. ROBINSON: Did the installation.
MR. BAUGHMAN: How would we move forward to recertify this vessel to have the repair analyzed and -- I don't feel comfortable taking an assumption that everything is like it's supposed to be. I just -- I don't feel comfortable in that.

How would we move forward with taking this vessel -- and whether the SOP is to do an ultrasound, do a mag particle, doing whatever to recertify this repair. We know the vessel -- the unit itself is okay, or at least it was constructed okay. It's been there since 2001.

It's been operating since 2001. So we've got 16 years of operation on this, too.

MR. PISCHKE: And we -- and it's been signed off by the State. So that's objective evidence --

MR. ROBINSON: Yes.

MR. PISCHKE: -- too, that everything was done in accordance with the, you know, NBIC and ASME. I mean -- so I don't think we need to argue that so much. Now, having said that, we're missing a few pieces of the puzzle.

And to Dave's point, is there something that we can do to help us fill in those blanks? Perhaps, even, you know, an additional inspection of the unit that could give us reassurance that it's still in good operating condition and not in unsafe degradation or anything like that? Is that kind of --

MR. BAUGHMAN: Well, my end of it is, I make no assumptions. The certificates themselves are not proper showing that the pressure was 300 PSI. That has been missed year after year after year. So just because somebody's signed off on it, obviously, we're looking at some equipment that there's been some things that have been overlooked.

And moving forward, I think that we need to just -- and I've -- I don't have any qualms about it being right. I want to make sure that what everybody does is from the standpoint of covering everyone, from a liability standpoint. And so how do we attend to that? Because there have been some irregularities in some of the accounting, some of the pressures, and what have you. We know there's a repair that's been done that -- the paperwork's not accountable for, nor was there a mandate for it to even be in place over that period of time. It's just that, of course, it was never filed with the National Board.
1. 100 percent of the welds. Now, we can't go back and
2. identify the welder.
3. MR. PISCHKE: Well, we have a P-4
4. form that documents the welds, correct?
5. MR. ROBINSON: For the coil.
6. MR. PISCHKE: For the elements.
7. MR. ROBINSON: For the coil.
8. MR. PISCHKE: But the welds --
9. MR. ROBINSON: For the flanges.
10. MR. PISCHKE: For flanges, depending
11. on the type of flange, they may not be able to be
12. x-rayed.
13. MR. ROBINSON: Absolutely. And
14. again, because I don't know the configuration,
15. slip-ons or butt-welded. If they're butt welded,
16. it's well within our rights that we could perform a
17. radiography inspection. And that'll tell us if the
18. welds are sound. The PMI will tell us if the
19. material meets or exceeds criteria of the code.
20. With that said, the other -- only
21. option -- the only other -- well, additive I would
22. make a mention to is, you're doing a 15-year oil
23. analysis, right? You said approximately 15 years?
24. MR. PASTOREK: Well, we test it more
25. often than that, and we really make a decision on

1. whether or not to replace it. We actually replaced
2. it two years ago. So we probably are not due to
3. replace it --
4. MR. ROBINSON: So you're verifying
5. it --
6. MR. PASTOREK: -- for a long time.
7. MR. ROBINSON: -- in accordance with
8. NBIC and looking for carbon content, as well. So
9. you've got a track record.
10. MR. PASTOREK: We check a number of
11. different things. Yes, sir.
12. MR. ROBINSON: And again, to validate
13. that, to make sure, and that's my two cents.
14. MR. BAUGHMAN: Will the unit have to
15. be disassembled in order to perform this --
16. MR. ROBINSON: The --
17. MR. BAUGHMAN: -- as far as
18. accessibility to those areas that we're wanting to
19. analyze?
20. MR. PASTOREK: I don't think so. I
21. think we can access the flanges without
22. disassembling it.
23. MR. BAUGHMAN: Will any visual need
24. to be made as far as for full penetration?
25. MR. ROBINSON: You -- if the nozzles
1. component itself was built to ASME Section 1. I
2. mean, we have the data report.
3. MR. ROBINSON: Objective evidence.
4. MR. PISCHKE: Yeah. We don't have
5. the R-1 form. And so the purpose of this would be
6. to verify that the requirements of that R stamp were
7. met. Is that -- did I properly characterize that?
8. MR. BOWERS: Yeah. But I would say,
9. also, if you could dig in your files and find that
10. R-1, it might save a lot of headaches.
11. MR. PASTOREK: Sure. I mean,
12. MR. PISCHKE: And ARISE might have
13. that?
14. MR. CHAPMAN: Yeah.
15. MR. PISCHKE: So maybe that would be
16. a good place to start.
17. MR. BAUGHMAN: Would the National
18. Board possibly assign an NB Number to this or not?
19. MR. CHAPMAN: Not now. It's too much
20. time.
21. MR. PISCHKE: Not now.
22. MR. BAUGHMAN: Not now. Okay.
23. MR. ROBINSON: And because the cart's
24. before the horse. You don't have welder qualification; you don't have material,
25. authenticity. There's a lot of things that are
26. unknown.
27. MR. PISCHKE: Yeah.
28. MR. PASTOREK: When you talk about a
29. visual inspection, who would conduct that? Is that
30. something the State would do or is that --
31. MR. ROBINSON: You could get a third
32. party.
33. MR. PISCHKE: AI. An authorized
34. inspector.
35. MR. ROBINSON: You could have a third
36. party perform your radiographic testing that has to
37. be certified in accordance with Section 5. You can
38. get a third party to perform your PMI. A PMI --
39. forgive me, positive material identification.
40. MR. LAUDERDALE: Oh, you're talking
41. about --
42. MR. ROBINSON: They'll have to
43. generate a procedure. Normally, there's a
44. procedure. Some people will have a procedure. Go
45. ahead.
46. MR. PISCHKE: The testing -- the
47. third party testing company would normally have
48. their qualifications to perform that --
49. So yes --
50. MR. PISCHKE: I think --
51. MR. PASTOREK: -- it was actually
52. something we -- I was exchanging some e-mails with
53. our engineering manager earlier today about this
54. very same thing that we've got to take a lesson
55. learned from this and try to apply it.
56. MR. BAUGHMAN: Good.
57. MR. BOWERS: Well, there were a lot
58. of mistakes that's not really your fault. It's --
59. other people have made that put you in this
60. situation.
61. MR. PISCHKE: No. It sounds like you
62. inherited --
63. MR. BAUGHMAN: So does that mean
64. that, in looking at this, that we get that
65. accomplished first and then re-review this? Or does
66. that mean that we're approving it upon this
67. happening, or what the point moving forward, then?
68. MR. CHAPMAN: Well, me, personally, I
69. think that as -- what they should go ahead and get
70. all that done and then bring it back.
71. MR. BOWERS: Okay.
72. MR. CHAPMAN: All of that, because
73. then we'll have more pieces to the puzzle, as they
1. MR. BAUGHMAN: So can they operate presently under the conditions that they have?
2. MR. ROBINSON: At some point, they're going to have to turn it off to --
3. MR. CHAPMAN: To do --
4. MR. ROBINSON: -- do the testing.
5. MR. CHAPMAN: Yeah.
6. MR. BAUGHMAN: Well, I understand. But it's operating now --
7. MR. CHAPMAN: Exactly.
8. MR. BAUGHMAN: -- without a Tennessee Special, without an NB Number. It's been operating for a number of years --
9. MR. CHAPMAN: Yeah.
10. MR. BAUGHMAN: -- safely, but what I'm saying is, is that what's the protocol for operating without these numbers in place?
11. MR. PISCHKE: Can we provide a temporary provision for operation?
12. MR. CHAPMAN: I believe it is, but I will have to make -- check and make sure on that.
13. MR. BAILEY: Can I interject something? I just want to make sure, when you're talking about Tennessee Special that -- I just want to read the rule to you on a Tennessee Special of boilers and pressure vessels.
14. MR. PISCHKE: Could you turn on your mic?
15. MR. BAILEY: I did.
16. MR. PISCHKE: Oh, you did? Oh.
17. MR. BAILEY: Talk louder?
18. MR. PISCHKE: Talk louder.
19. MR. BAILEY: Tennessee Special: Boilers and Pressure Vessels. If a boiler or pressure vessel is of special design, or one that cannot bear an ASME and NB stamping, or one that has special construction, details of the proposed construction, including shop drawings, shall be submitted to the Chief Inspector or Chief Inspector's designee. Approval for construction and installation as a quote, "Tennessee Special" boiler or pressure vessel must be obtained from the Board before construction is started. That's all it says.
20. MR. BAUGHMAN: Okay.
21. MR. BAILEY: So with that definition, I guess you've got to determine, does this fit that definition?
22. MR. PASTOREK: If I could -- just one question. If I understand what we talked about a minute ago, if that was what was required of us; the PMI assessment, x-ray 100 percent of the welds, and visual inspection of the internal of the nozzle -- or nozzles by a third-party AI. If there were a time period granted to us to perform that -- I mean, I -- we're going to call, like, this afternoon to just try to begin the wheels, the gears turning on this.
23. But if we could have some reasonable time frame where we can schedule a shutdown, do the disconnecting piping, because that's going to be a pretty significant effort on our part, then we can conduct that within that period, bring the results back to you. But I guess, what I'm requesting is consideration of continuing to operate the unit as it's operated for the past 16 years. We want to do what's right and we'll do it quickly, but it will take us a little -- preferably, if we had time, we would like to be able to schedule it safely.
24. MR. PISCHKE: I would like to clarify something in those requirements.
25. MR. ROBINSON: Yes. Please do.
26. MR. PISCHKE: Necessary if the flange is a weld neck flange, and it has the circumferential weld. That's when the RT would be required. We aren't asking you to x-ray the welds that were produced using the ASME code stamp --
27. MR. PASTOREK: Right.
28. MR. PISCHKE: -- in the shop.
29. MR. PASTOREK: Just the flange?
30. MR. PISCHKE: Just the flange that was performed under the R stamp work, if it's a -- if it is a weld neck flange. If it is a slip-on flange, which you cannot perform an x-ray, then we would ask for the visual examination inside and out, because that has two fillet welds on it. And that --
32. MR. PISCHKE: So --
33. MR. ROBINSON: Yes.
34. MR. PISCHKE: So is that --
35. MR. ROBINSON: That would be ideal.
36. MR. PASTOREK: So it's either/or. You either have it or --
37. MR. PISCHKE: Either/or.
1. understand.

2. MR. PISCHKE: Yeah.

3. MR. PASTOREK: Not both.

4. MR. ROBINSON: And --

5. MR. PISCHKE: And PMI --

6. MR. PASTOREK: Plus the PMI.

7. MR. ROBINSON: Technically, you don't need an AI. What you need is a nondestructive testing organization.

8. MR. PASTOREK: Okay.

9. MR. LAUDERDALE: So a level 3 inspector.

10. MR. PISCHKE: Yeah. A level -- well, it would be performed by a level 2 examiner.

11. MR. LAUDERDALE: Sure.

12. MR. ROBINSON: Yes. Yes, sir.

13. MR. PISCHKE: In accordance with their program. Normally, ASNT-TC-1A is --

14. MR. PASTOREK: And you could point out to them that it's -- just keep it proper. You could point out to them that it's a Section 1 pressure vessel and it's stamped in accordance with that. And what he should be able to give to you is an ASME Section 1 procedure for performing those examinations. Okay?

15. MR. BAUGHMAN: One other item that Mr. Bailey described in that definition of the Tennessee Special is the shop drawing. And so we're going to have to have the shop drawing itself on the unit. Is that correct, through that wording?

16. MR. BAILEY: That's what it says.

17. MR. PASTOREK: We requested that, and we're not able to get copies of it.

18. MR. LAUDERDALE: At least something so we could identify it.

19. MR. CHAPMAN: Identify it. Yeah. Be able to identify it.

20. MR. ROBINSON: And keep in mind --

21. MR. PISCHKE: That's correct. What variations of flanges, that's what we're -- the butt welds are made for the coil. And in reality, the flanges are what we're seeking answers to. Up for discussion, Mike.

22. MR. PISCHKE: That's correct. What is at the focal point of this is the repair work and not the Section 1 new part, correct?

23. MR. ROBINSON: Yes, sir.

24. MR. BAUGHMAN: Well, I'll add to that, in as much as we've got a P-4. But a P-4 is not a shop drawing.

25. MR. ROBINSON: No.

26. MR. PISCHKE: No.

27. MR. BAUGHMAN: The Code specifically says "shop drawing." So if we're not going to have a shop drawing, then we're changing and not adhering to what's in the Code itself. So we've got the P-4 and we're talking about the weld repair or the weld that was done for this, which is fine. That's kind of its own separate entity. But the coil itself is also this Tennessee Special. And from what I'm understanding, the shop drawing is an integral part of that.

28. MR. ROBINSON: And you --

29. MR. BAUGHMAN: So --

30. MR. ROBINSON: Is there any latitude in that verbiage, Dan?

31. MR. BAILEY: I'll read it again. If a boiler or pressure vessel is of special design, comma, or one that cannot bear the ASME and NB stamping, comma, details of the proposed construction, parentheses, including shop drawings -- that's in parentheses -- shall be submitted to the chief inspector or chief inspector's designee.

32. MR. PASTOREK: Before construction.

33. MR. BAILEY: Well, it just -- yeah. It says, approval for construction and installation as a, quote, "Tennessee Special," boiler, or pressure vessel, must be obtained from the Board before construction has started.

34. MR. PISCHKE: Now, that's if it cannot be stamped with an ASME --

35. MR. BOWERS: Right. This was --

36. MR. PISCHKE: It can be and was stamped, because there's an ASME --

37. MR. BOWERS: Because there are P-4s that have --

38. MR. BAILEY: That's why I read the rule, because I've never heard in the discussion that, you know, that it was impossible to stamp this --

39. MR. PISCHKE: No. It was stamped.

40. MR. BAILEY: -- vessel.

41. MR. PISCHKE: So --

42. MR. BAILEY: So I don't know if it even qualifies.

43. MR. PISCHKE: So we don't need those
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<td>1. drawings if it's ASME code stamped.</td>
<td>1. MR. BAUGHMAN: It can.</td>
<td>1. MR. BAUGHMAN: For me, it's just not meeting the total verbage of what's in the Code.</td>
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<td>2. MR. BOWERS: Right.</td>
<td>2. MR. BOWERS: Yes.</td>
<td>2. MR. BAUGHMAN: Right.</td>
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<td>3. MR. PISCHKE: That's the way I understand it.</td>
<td>3. MR. BOWERS: It hasn't been, so --</td>
<td>3. MR. PISCHKE: Because it's not applicable to a brand new vessel.</td>
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<td>4. MR. BAUGHMAN: Excuse me, just a second. Is that -- there's a word in there, though, that says &quot;ASME and --&quot;</td>
<td>4. MR. BOWERS: There's -- it can.</td>
<td>4. MR. BOWERS: And it would have -- again, its ASME paperwork --</td>
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<td>5. MR. PISCHKE: That's the way I understand it.</td>
<td>5. MR. BAUGHMAN: -- National Board.</td>
<td>5. MR. BOWERS: One that can bear ASME and National Board stamping.</td>
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<td>6. It doesn't say either/or.</td>
<td>6. MR. BAUGHMAN: -- and NB stamping, or</td>
<td>6. MR. BOWERS: Yes.</td>
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<td>7. MR. PISCHKE: Yeah.</td>
<td>7. at least that's what I was hearing to begin with.</td>
<td>7. MR. PISCHKE: There's nothing stopping it from bearing -- it already bears the ASME.</td>
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<td>10. MR. BOWERS: Right.</td>
<td>10. MR. CHAPMAN: The NB Board.</td>
<td>10. MR. ROBINSON: Right.</td>
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<td>11. MR. PISCHKE: It's my understanding -- and I'm -- I can be corrected on this. The only thing this is missing is National Board --</td>
<td>11. MR. CHAPMAN: Registration.</td>
<td>11. MR. ROBINSON: Because the China units that have a --</td>
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<td>12. MR. BAUGHMAN: -- and NB stamping, or</td>
<td>12. MR. PISCHKE: It's a Tennessee Special?</td>
<td>12. MR. ROBINSON: For the paper rolling operation. And --</td>
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<td>14. MR. BAUGHMAN: -- and NB stamping, or</td>
<td>14. MR. PISCHKE: -- we disallow. It meets the requirements of ASME as of vessel design and everything. That's my understanding. Is that correct?</td>
<td>14. MR. ROBINSON: Now, we have approved a Tennessee Special enforcing the China units that have a --</td>
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<td>15. MR. PISCHKE: It's a Tennessee Special?</td>
<td>15. MR. BOWERS: That's what I'm understanding, too.</td>
<td>15. MR. ROBINSON: -- the pieces of equipment have been made. And in this case, they had a dossier. And it had -- they had put together the information and brought it to the Board for the years.</td>
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<tr>
<td>16. MR. PISCHKE: -- we disallow. It meets the requirements of ASME as of vessel design and everything. That's my understanding. Is that correct?</td>
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1. Board’s consideration as a Tennessee Special. And I think we performed -- we elected to perform some additional testing to authenticate or to objectively identify that the welding was correct and the welds were sufficient. And we granted the Tennessee Special.

2. MR. BAUGHMAN: Those units also had shop drawings that we evaluated.

3. MR. ROBINSON: Yes, they did.

4. Absolutely. They had a complete dossier.

5. MR. PISCHKE: They were fairly new, also.

6. MR. ROBINSON: They had a complete dossier.

7. MR. BOWERS: Well, the situation we are in now and what the -- I guess, what they're wanting to know is they have to have a certain amount of stuff they're going to have to do, but they want to operate this device, I guess until the next board meeting, correct? I guess they won't be able to present anything until the next Board meeting. So they need to operate this equipment -- they're going to need a time period to get this stuff done.

8. MR. CHAPMAN: Right.

9. MR. BOWERS: And they want to operate until they get it done. So they won't present it till the next Board meeting. So they're wanting our consideration to see if they can operate until the next Board meeting.

10. MR. ROBINSON: The gentleman was give -- he had given us -- you had given us your plans as far as what you planned on doing after you left here if we decided to go a certain way. You want to restate what you just mentioned?

11. MR. PASTOREK: Yes, sir. I guess one question I have before I run through that, if I could, is just a question about how often the Board meets and when the next meetings would be?

12. MR. PISCHKE: It's December.

13. MS. JEFFERSON: Yes. It's going to be --

14. MR. PISCHKE: December 13th.

15. MS. JEFFERSON: -- December the 13th.

16. MR. PASTOREK: And so in that case, would we need to -- 45 days before that meeting, have objective information to provide to the Board?

17. MR. CHAPMAN: The criteria is 45 days.

18. MR. PASTOREK: So --

19. Code vessel that is operating using a fluid and not gas, correct?

20. MR. PASTOREK: That's correct.

21. MR. PISCHKE: It's not steam. It doesn't possess a large amount of stored energy like steam. It's an incompressible fluid under pressure.

22. MR. BAUGHMAN: That does have a flashpoint.

23. MR. PISCHKE: Sure.

24. MR. PASTOREK: Sure.

25. MR. PISCHKE: Yeah.

26. MS. JEFFERSON: Is it an alternative for them to request a variance, instead, for them to continue to operate? That would probably provide additional time.

27. MR. BAILEY: Basically, a temporary variance --

28. MR. PISCHKE: A temporary variance.

29. MR. BAILEY: -- to keep running until March.

30. MR. PASTOREK: That would be -- if that was something that we -- could be considered, that would be preferable.
1. MR. BOWERS: It'd be six months, basically.
2. MR. BAUGHMAN: Well, and that doesn't set a precedent, then, in the future. Where it set a precedent for us to evaluate a variance rather than stepping forward and just saying, you can run. I think the variance is a good idea.
3. MR. ROBINSON: Yeah, it is. Very good.
4. MR. BAUGHMAN: So how do we word the variance?
5. MR. BAILEY: Well, basically, that what they're requesting is they be permitted to continue to operate as they've been operating, which varies from the Code or the rules. And I don't know all the exact -- you know, all -- every exact thing that's different, but whatever the differences are, they're asking that you all grant a variance for -- until the March Board meeting for them to come back and respond to some of the questions.
6. And even then, I still question whether this is a Tennessee Special. It may be that you grant a permanent variance for them to operate at that time. I mean, I think -- what I was a little afraid of is granting this a Tennessee Special, calling it that, when it really isn't that. You know. And that kind of sets a precedent that you don't want to do. You know.
7. So this would be a temporary variance, for them, basically, to continue operating as they have been operating. Now, you can qualify that.
8. If there are certain things you think they're doing now that you'd rather see them do it this way until March, you can certainly do it that way. I mean, that's up to y'all as far as how you word your motion.
9. MR. PISCHKE: I tend to agree with that assessment that it should be a variance rather than a State Special.
10. MR. BOWERS: Okay. 
11. MR. PISCHKE: Is that --
12. MR. BAUGHMAN: I agree.
13. MR. BOWERS: Yeah.
14. MR. BAUGHMAN: It's just the wording of it.
15. MR. PISCHKE: Okay. Well, you know, perhaps we can refine the wording between now and March of a permanent variance.
16. But for now, I guess the motion is a temporary variance to operate until March under the same operating conditions that you have been now or have now. Also in March -- by March, we will have the deliverables of the nondestructive examination and the material verification, all of those requirements that we spelled out earlier.
17. Is that correct?
18. MR. BAUGHMAN: Yeah.
19. MR. PISCHKE: Am I --
20. MR. PASTOREK: Can I ask one clarification? The shop drawings.
21. MR. BOWERS: You won't need the shop drawings if we do the variance.
22. MR. PASTOREK: Okay.
23. MR. BOWERS: Correct?
24. MR. PISCHKE: Correct.
25. MR. PASTOREK: We requested -- just for your own information, we did try to request those from the manufacturer and they did not provide those to us.
26. MR. PISCHKE: Just as good practice, I would try to continue to find that.
27. MR. PASTOREK: To try to pursue it?
28. Okay.
29. MR. PISCHKE: Pursue that. Perhaps even do some reverse drawings.
30. MR. BAUGHMAN: Can I interject?
31. MR. PISCHKE: Go ahead.
32. MR. BAUGHMAN: The manufacturer --
33. the coil is no longer manufactured, but Volcanic themselves out of Alliance, Ohio, is still a manufacturer.
34. MR. PASTOREK: Yes, sir. That's correct.
35. MR. BAUGHMAN: And they themselves cannot provide a shop drawing for this unit, even a --
36. MR. PASTOREK: They haven't.
37. MR. LAUDERDALE: So far, they have not. We have requested it repeatedly. We will continue to hound them and see what happens.
38. MR. BAUGHMAN: It seems if they're a current manufacturer that they, especially wanting to do business with a company like Ergon, that they would be forthcoming in that. But --
39. MR. PISCHKE: Sometimes they can't.
40. I mean --
41. MR. BAUGHMAN: Yeah. Well, they're still building units and they have the dimensional, so coming up with the dimensional shop drawings shouldn't be a huge issue for this manufacturer.
1. But there again, I'm not working there, so I don't know.

2. MR. PISCHKE: Yeah.

3. MR. BAUGHMAN: But regardless, we're looking at this not from the possibility of a Tennessee State Special, as we are an operational variance now, at this point. Jesse's got something.

4. MR. PASTOREK: So the --

5. MR. SMITH: I'm confused about the term -- oh, Jesse Smith, State boiler inspector. I'm confused about the term "operational variance." We've got two types of variances listed in our boiler rules. One's the attendance variance and the other one's a variance from meeting the annual internal inspection data of a high pressure boiler with data provided -- instances be met. But I'm not familiar with the operational variance that you're describing.

6. MR. BAILEY: I think in the statute -- and this is T.C.A. 68-122-1109(g): The Board may also, in its discretion, grant other variances where the Board deems it necessary in order to protect the health, safety, and welfare of the public. All requests for variances shall be submitted to the chief inspector or the chief inspector's designee no less than 45 days prior to the next regularly scheduled or called meeting of the Board. That's pretty broad.

7. MR. PISCHKE: Does that help?

8. MR. SMITH: Yeah. If that satisfies you, that satisfies me. I just didn't know the existence. So thank you.

9. MR. BAUGHMAN: Does that fall within those --

10. MR. BAILEY: I think so.

11. MR. BAUGHMAN: -- terminology?

12. MR. BAILEY: Yes, sir.

13. MR. BAUGHMAN: Good.

14. MR. BOWERS: Okay.

15. MR. BAUGHMAN: If he's good with it --

16. MR. PISCHKE: He's good.

17. MR. BAUGHMAN: -- I'm good with it.

18. MR. PISCHKE: I was going to say the same thing.

19. MR. PASTOREK: So not to beat a dead horse, but to make sure that we give you guys the right deliverables when we come back -- or prior to us coming back. So depending on the flange type,
MR. BOWERS: Ask about --
MR. BAUGHMAN: Conflicts?
MR. PISCHKE: Oh, I'm sorry. Thank you.
MR. FOX: Conflicts.
MR. PISCHKE: Anyone have a conflict of interest on this item? Okay. Not hearing any.
MR. HAYS: I'm Chris Hays, BASF Corporation. This is Brittany Davis, also with BASF.

We are -- BASF is requesting a variance for two boilers located at the 32 Lost Mound Drive plant in Chattanooga. The boilers are part of a chemical manufacturing process. We produce styrene-butadiene polymers, as far as it's for using adhesives and foams on the asphalt. In addition to these boilers, we operate 123 other pressure vessels, including eight 5,500 gallon reactors. Our processes are governed by OSHA PSM and EPA RMP standards. And a little background on the facility. It's divided into six production units. So the six units make up a continuous process from raw material to finished goods. And a utilities area, 1600, is where the boilers, deaerator, air compressors, cooling towers of the utilities are located.

We have a main control room that's centrally located in the plant. Our main control room is attended 24/7 by either a team leader or one or more of the other operators on shift. It's a common operating area for the plant. Operators that make adjustments to the process are either from the field or from the control room DCS consoles.

The remote monitoring station for the boilers is located in the main control room. It's around 300 feet from the boiler control room. So in our case, the remote monitoring personnel will be either fellow operators and team leaders that are assigned to a shift or maybe the actual boiler operator, at the time. So the way that works in the control room, it may be attended by -- the team leader may leave and it could be the boiler operator, reactor operator, any of the other team that's actually attending the room. And also, all our operators carry two-way radios for direct communication. We communicate through a repeater under normal circumstances. We have direct radio-to-radio capability for power outages. We have a plant-wide intercom system in case of -- somebody has a radio turned off, the battery dies, that sort of thing.

Also, we have examples -- the Board has asked a lot of questions about training for operators and the -- today, so we've brought examples of what our training documentation looks like and -- both for our on-the-job sign-offs and things like that as well as training on procedures.

So our plan would be, if a variance is approved, we would initiate our management of change process and get these procedures that we presented to you actually in service in the plant and training started on all of those approved by site management, engineering, and EHS. And then we would include in the maintenance plans for the area to have the variance renewed at the proper time.

MR. BAUGHMAN: Well, there needs to be a motion.
MR. PISCHKE: Okay.

MR. BOWERS: Second.

MR. BAUGHMAN: Let's go through that again, the motion.
MR. PISCHKE: Okay. A motion to discuss.

MR. BOWERS: I'll second.
MR. PISCHKE: Okay.

MR. BAILEY: Before we go, just let the record show that Ms. Jefferson and Mr. Robinson had to leave the meeting to go to Capitol Hill. That was already planned.

MR. PISCHKE: Thank you.

MR. BAUGHMAN: Okay. Motion to discuss.

MR. BOWERS: Second.

MR. BAUGHMAN: Well, there needs to be a motion.

MR. BOWERS: Okay. Motion to discuss.

MR. PISCHKE: And second?

MR. BAUGHMAN: Second.

MR. PISCHKE: Okay. Thank you. Go ahead.

MR. BOWERS: Okay. I'm looking at your packet here, and the only thing I can see about the boilers is two Babcock & Wilcox boilers.
1. There's no Tennessee Number, National Board Number, anything about the boilers in your packet.
2. MR. HAYS: Right.
3. MR. BOWERS: I mean, you're asking for a variance for these boilers, right?
4. MR. HAYS: Yes.
5. MR. BOWERS: So there should be something about the boilers in the packet, right?
6. MR. HAYS: Well --
7. MR. BOWERS: Don't you agree?
8. MR. HAYS: If that's a requirement, then yes. We don't have the National Board Number. Would you like that in -- you would want that included in the -- in our remote monitoring procedure, just for the Board's information?
9. MR. BOWERS: Yeah. You need that, right, Sam? You need the Tennessee Numbers and --
10. MR. CHAPMAN: Yeah.
11. MR. BOWERS: -- everything else for the packets to --
12. MR. CHAPMAN: Like on --
13. MR. BAUGHMAN: Actually, part of the requirement of the --

1. MR. PISCHKE: The check list. Yeah.
2. MR. BAUGHMAN: It's under Systems Operating Manual, Number 4. Does the manual clearly describe the boiler system that is being remotely monitored?
3. MR. HAYS: Okay.
4. MR. BAUGHMAN: And to expand upon that, since we have only that these are two B&W boilers, what year are the boilers?
5. MR. HAYS: They are -- in this case, they are original to the plant, 1971.
6. MR. BAUGHMAN: Two 1971 B&Ws. And what size are they?
7. MR. HAYS: They are in our -- let me get my correct procedure pulled up here. In our Normal Operation Procedure that's UCM-W1603 in the overview of the steam generation system, it's Section 6.1, they are 30,000 pounds per hour on their name plate.
8. MR. BAUGHMAN: At what PSI are they rated? Not what they operate, but what are they rated?
9. MR. HAYS: They have -- I can give you relief valve settings off the top of my head, but that's --

1. MR. BAUGHMAN: It's okay.
2. MR. HAYS: That's all I could give you.
3. MR. PISCHKE: What are they set at?
4. MR. HAYS: There's one right off the drum or right off the header that's 175 and then we have a 195 and then also a 200 on the steam drum.
5. And we also -- I believe we -- did we supply them with the P&IDs?
6. MS. DAVIS: We -- I don't believe we put the P&IDs in your packet, but we do have a copy of some supplemental materials that we can pass around. So if you would like to see the P&IDs, we have a copy.
7. MR. BAUGHMAN: I guess at my point where I'm at is that I've got nothing to refer to, as far as the boilers go. I've got -- we're approving -- we're being asked to discuss and approve a variance upon equipment that we can't ask about or even have identified other than the manufacturer in writing.
8. MS. DAVIS: Would you like to see a P&ID?
9. MR. HAYS: Are you saying that we should have included the -- a U-1 form with the --
10. MR. BAUGHMAN: No. Not necessarily the manufacturer data report. A U-1 would be for an unfired vessel, so this would be a P-2 manufacturer data report.
11. MR. PISCHKE: P-3.
12. MR. BAUGHMAN: P-3. For the high-pressure boiler?
13. MR. PISCHKE: Yeah. For high-pressure.
14. MR. BAUGHMAN: And S stamp's a P-2.
15. Particularly, regardless, we don't have any -- we don't have anything identifying what it is that we're looking at. We've got the control system identified through here and valves that are opening and closing and the procedures, but it doesn't identify the equipment itself. So I just -- I don't have anything to really analyze.
16. MR. BOWERS: Yeah. It'd be more like a fact sheet. Basically, your Tennessee Number, your --
17. MR. PISCHKE: Your spec sheet.
18. MR. BOWERS: Yeah. Your National Board Number, your MAWP of your boiler, your safety valve settings, a fact sheet of that boiler. It'd be something that you would put together. It
MR. HAYS: So it's not going to be -- normal hourly round of checks.

MR. BOWERS: Yes. The operator will have hourly rounds, anyway. So the purpose of this would be for, really, flexibility, because the operators on that shift that are qualified in that area, but only one should be assigned that day.

MR. HAYS: -- by full-time operators.

MR. BOWERS: -- based in the control room.

MR. BOWERS: -- in which your safety valves are set. You know. A little more data to let us go by. And I even tried to look it up under the database, and I didn't even see these boilers in there even to find the National Board -- the Tennessee Numbers on these. And you're the --

MR. HAYS: Well, as far as the --

Yeah. As far as the name plate information and anything that our inspector --

MR. BOWERS: Yes.

MR. HAYS: -- would see and that sort of thing. So this would just really allow a reactor area, to go check the boilers and that sort of thing. So this would just really allow a normal hour of rounds. And I even tried to look it up under the database, and I didn't even see these boilers in there even to find the National Board -- the Tennessee Numbers on these.

MR. BOWERS: And maybe a copy of the -- one of the State certificates, you know, with that. Your latest State certificate would help.

MR. BOWERS: And what is the purpose of going from the system that you've got to -- going to a four-hour system? What's the benefits to your -- is the operator still going to be there or he's going to be doing different things now?

MR. HAYS: Yes. The operator will still be there. Actually, for this plant, we had not planned on going to four-hour checks. We were going to just continue with -- most of the areas have hourly rounds, anyway. So the purpose of this would be for, really, flexibility, because the operator that runs the utility area also unloads raw materials at times, which are flammables. And they also, during certain parts of their operation, require constant attendance. So it's -- in a case where we have possibly one boiler operator on shift, he's got to kind of leave one spot possibly or shut down an unloading operation, go check a boiler, and start up another unloading operation.

And some shifts where they may have more than one boiler operator, you know, they may have to call somebody to leave, possibly the reactor area, to go check the boilers and that sort of thing. So this would just really allow a normal hourly round of checks.

MR. BOWERS: So it's not going to
1. change much from what you're operating right now.
2. MR. HAYS: It doesn't add or subtract
3. any personnel from the area.
4. MR. BOWERS: Okay.
5. MR. BAUGHMAN: So on Number 33 of our
6. form for the checklist, for attendant variance
7. request, Number 33 says, does the manual include a
8. training log that contains the date, name,
9. instructor signature and remarks. And it's marked
10. "not applicable" with the comment to the side of
11. 6.3.3.2. And as I go back to look for 6.3.3.2, I
cannot find that, unless I'm just overlooking it.
12. But it goes from 6.3.2.4.
13. MS. DAVIS: So this is part of our
14. supplemental material.
15. MR. BAUGHMAN: That all of us have?
16. MS. DAVIS: You don't have that. We
didn't realize that we needed to include it in your
original packet, but we brought it with us. So we
have some samples of training records, our
on-the-job training records.
17. MR. BAUGHMAN: Okay.
18. MS. DAVIS: They're initialed each by
a team leader, and then they all say, I verify that
19. I reviewed and I understand and I can do this job.

1. It's signed by the operator, it's signed by a
2. trainer, a senior evaluator, and team leader and a
3. backup.
4. MR. BAUGHMAN: So would that, then,
5. be that 6.3.3.2 or is --
6. MS. DAVIS: That's a description of
7. how we train and our training standards and our
8. training procedure. And this is, I guess, the
9. physical training records.
10. MR. BAUGHMAN: Okay. So what does --
11. MR. HAYS: The 6.3.3.2 mentions the
12. learning management system and site support
13. specialist. And through the learning management
14. system and site support specialist, that's where we
got that log. So it's -- our --
15. MR. BAUGHMAN: Oh, so it's not
16. actually in here.
17. MR. HAYS: Our records are maintained
18. electronically in a database, along with -- well,
19. all the operator training and records.
20. MR. BAUGHMAN: Super. Thank you. So
21. what I was just getting at was that's what I
couldn't find, was as I was looking for it --
22. MR. HAYS: Yeah.
23. MR. BAUGHMAN: -- there's references
24. to materials that we don't have --
25. MR. HAYS: Right.

1. MR. BAUGHMAN: -- that are integral
2. to the manual. Okay.
3. MR. HAYS: We understood that this
4. may cause some heartburn when we met with the Board
5. and we were hoping that we could bring enough
6. information to show that we satisfied --
7. MR. BAUGHMAN: Okay. It's --
8. MR. PISCHKE: Oh, we found it.
9. MR. BAUGHMAN: We got it.
10. MR. HAYS: -- the requirements.
11. MR. BAUGHMAN: Yeah. Thank you.
12. MS. DAVIS: In summary, basically
13. what happens is, somebody will be qualified for an
14. area, so they go through training, and those are the
15. on-the-job training forms that I left right there.
16. And then every year or every time a procedure is
17. updated, we use our learning management system and
18. the training is re-sent out. And then that's the
19. electronic records beside you for every operator and
20. every procedure that they've been trained on. So
21. they're trained annually and when a procedure's
22. updated that they're qualified in that area.
23. MR. BAUGHMAN: So these are samples?
25. when we go -- if we were to receive a variance, we

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<td>1. really, I can't run, you know, monomer storage and</td>
<td>1. would initiate a management of change, train all</td>
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<tr>
<td>2. not the boilers or boiler and not monomer storage.</td>
<td>2. operators on this procedure and the tasks involved,</td>
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<td>3. So that's why you see all that together. It's -- it</td>
<td>3. and that's how we would take care of training. And</td>
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<td>4. is one guy's responsibility.</td>
<td>4. then it would be annual from there, unless that</td>
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<td>5. MR. BAUGHMAN: I'm just thinking, as</td>
<td>5. procedure were to change.</td>
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<td>6. far as for our own review, if in presentation you</td>
<td>6. MR. HAYS: Our change procedures, the</td>
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<td>7. can condense all of this pages and pages of training</td>
<td>7. way it starts out is it has a description, reason</td>
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<td>8. down to specifically --</td>
<td>8. for changes, and then you kind of start with, here's</td>
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<td>9. MR. HAYS: Okay. Yeah.</td>
<td>9. what we would like to do and why, and then we'd go</td>
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<td>10. MR. BAUGHMAN: -- down to boiler.</td>
<td>10. through engineering and management approval. And</td>
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<td>11. MS. DAVIS: We can do that, but since</td>
<td>11. then there are different tabs. It's a Lotus Notes</td>
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<td>12. these are the on -- original on-the-job training</td>
<td>12. database type things. There's different tabs for</td>
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<td>13. records, they won't have initials. I mean, it would</td>
<td>13. items to be updated, action items, pre-startup</td>
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<td>14. just be a list that we've put together.</td>
<td>14. safety review with a walkdown with the HS folks, and</td>
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<td>15. MR. HAYS: Yeah.</td>
<td>15. that sort of the thing, and then approval of the</td>
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<td>16. MS. DAVIS: Because these -- I mean,</td>
<td>16. change and startup approval before it's an official</td>
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<td>17. it is part of a package, like Chris said. So it</td>
<td>17. procedure. And training would be part of that where</td>
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<td>18. won't be initialed by anybody; it won't be signed;</td>
<td>18. we would actually have a training roster that an</td>
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<td>19. it'll just be a Word document, basically, that says,</td>
<td>19. operator would need to sign.</td>
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<td>20. here's who's trained.</td>
<td>20. MR. BAUGHMAN: So under that 6.3.3.2,</td>
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<td>21. MR. BAUGHMAN: And we're looking for</td>
<td>21. which they found for me, it does say, training is</td>
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<td>22. current personnel, as it is. So whether they were a</td>
<td>22. administered by the Chattanooga site support</td>
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<td>23. previous hire of 2006 or 2012, what we're looking</td>
<td>23. specialist and the production supervisor. Do we</td>
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<td>24. for is the training, because this is a new</td>
<td>24. have who that is, or is that just identifying the</td>
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<td>25. variance --</td>
<td>25. position?</td>
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<tr>
<td>1. MR. HAYS: Right.</td>
<td>1. MR. HAYS: The position? Yes, sir.</td>
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<td>2. MR. BAUGHMAN: -- and there's going</td>
<td>2. MR. BAUGHMAN: Okay.</td>
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<td>3. to have to be new training to the variance --</td>
<td>3. MS. DAVIS: We try not to be too</td>
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<td>4. MS. DAVIS: Right.</td>
<td>4. specific in case we do have changes in personnel,</td>
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<td>5. MR. BAUGHMAN: -- itself. So there's</td>
<td>5. because then we have to remember exactly whose name</td>
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<td>6. going to be a whole new set of training to this</td>
<td>6. is referenced in every procedure. So we try to list</td>
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<td>7. manual, as it is.</td>
<td>7. general titles in case that role were to change</td>
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<td>8. MR. HAYS: Exactly. That was one</td>
<td>8. people.</td>
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<td>9. thing that I was going to explain earlier. Our --</td>
<td>9. MR. HAYS: We kind of have -- we have</td>
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<td>10. within the document numbers that -- you see the</td>
<td>10. a published organizational structure and we try to</td>
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<td>11. remote monitoring of boiler systems carries a</td>
<td>11. stick with that. If one person gets promoted, it</td>
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<td>12. UCM-W10 number, and then the other boiler procedures</td>
<td>12. may look like, in 30 or 50 procedures, that they're</td>
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<td>13. are a 16 number. So 1600 would be the utilities</td>
<td>13. responsible for something that they're not.</td>
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<td>14. area. And according to the group or family</td>
<td>14. MR. BAUGHMAN: So to take that to a</td>
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<td>15. of procedures that you install this in, that's how</td>
<td>15. further extent on Number 31 of our checklist, it</td>
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<td>16. the training is dealt out by the learning</td>
<td>16. says, does the manual include an organizational</td>
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<td>17. management system. So in the case of the remote</td>
<td>17. chart showing clear lines of authority?</td>
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<td>18. monitoring system, that's not necessarily</td>
<td>18. MR. HAYS: In that case, rather than</td>
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<td>19. utilities. It's a plant general that all</td>
<td>19. using a chart, we really wanted to keep it very</td>
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<td>20. operating personnel would get the training on the</td>
<td>20. simple, a little bit different than, say -- and if</td>
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<td>21. remote monitoring --</td>
<td>21. we had our security guard or somebody like that</td>
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<td>22. MS. DAVIS: And that will actually</td>
<td>22. doing the remote monitoring, they would need the --</td>
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<td>23. happen with our management of change process. So</td>
<td>23. they would need peoples' phone numbers and cell</td>
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<td>24. when we go -- if we were to receive a variance, we</td>
<td>24. phone numbers and certain things like that. We</td>
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<td>25. really wanted to give the folks in the plant, on</td>
<td>25. really wanted to give the folks in the plant, on</td>
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site, on that shift -- they're in charge of all the
processes. So they have the authority.

So in this case, we said, in 6.4.1.5,
that the team leader or process technician has the
authority to place the boiler in a safe state by
activating a master fuel trip until a condition
can be corrected. So --

MR. BAUGHMAN: Because just under
6.4.1 is what's on the checklist. That refers to
the warm startup, warm system startup procedure that
I'm showing under operations.

6.4 and the remote monitoring of the boiler systems
procedure is remote boiler monitor personnel duties
and responsibility.

MR. BAUGHMAN: Got you. I'm looking
under the wrong 6.4.1.

MS. DAVIS: We apologize for
confusion and the format, but we tried to be
consistent with all of our other procedures. So we
understand that it might be a little difficult to
navigate. But we tried to be --

MR. HAYS: Yeah. For a reactor
operator, he knows every one of his procedures -- or
she knows every one of those procedures. 8.01 is an
emergency shutdown procedure, for instance. So they
always know where to go.

MR. BAUGHMAN: Thank you.

MR. HAYS: Again, we were afraid that
our format may cause some heartburn and seem more
difficult to folks outside the company to navigate.

MR. PISCHKE: Well, it -- yeah. That this is --

MR. HAYS: But this is --

MR. BOWERS: It's a huge amount of
data there. It's just a huge amount of data. Then
you're trying sifting through it where it pertains to
the variance.

MR. HAYS: We considered -- another
option that we had considered at one point was to
make a standard manual that would be easier for you
guys to navigate, but we would have to just have it
as an attachment to a standard procedure, because
that's the only way we're allowed to construct a
procedure. So we were kind of torn with that one.

MR. PISCHKE: And I can appreciate
that. As a quality manager, I certainly can
appreciate that.

What may have helped would be, you
know, taking that checklist one step further and
maybe -- you know, highlighted those exact
1. normal insurance inspector.
2. MR. PISCHKE: Do we have a State inspector who looks at these?
3. MR. CHAPMAN: I don't. Normally, if there's an insurance company involved, the State won't go out --
4. MR. PISCHKE: Oh, okay.
5. MR. CHAPMAN: -- unless it goes over to the delinquent list.
7. MR. BAUGHMAN: Was the boiler room itself in here?
8. MR. PISCHKE: Yeah. Was there an outline of the boiler room? I know there was a site --
9. MR. HAYS: The -- yeah. We just have the plot plan. What this looks like -- originally, these boilers were out in the open, had no -- they were not under a roof when the plant was originally constructed. A Canadian company built the plant, and they had -- they seemed to have had a lot more faith than they should have had that they wouldn't have freezing problems here in the South.
10. So much of that plan is constructed -- equipments' outdoors, out in the open. In possibly the 1980s, somewhere along in there, a roof was placed over both of them with the stacks penetrating through. So that's what you have. In original construction, there was a small room, if you want to call it that. They called it the boiler shack, you know, that had a control panel in it. And that had been -- has been expanded as part of this under-roof section. It is an actual room that has a plant DCS console in there.
11. So there are two workstations in there that the boiler operators can use. We have two in case of a failure of one of the stations, that they would be able to operate and see all the controls, manipulate them.
12. MR. BAUGHMAN: If you'd be so kind, on the site drawing, as just to point me in the direction of where the boilers are located? Never mind. I see them right here where it says "boilers."
13. MR. HAYS: That comes across --
14. MR. PISCHKE: That was our first clue.
15. MR. HAYS: -- a little easier on a large drawing.
1. set points of the relief valves, and so forth.
2. MR. HAYS: We can -- we should easily
3. be able to put our hands on that information.
4. MR. CHAPMAN: Yes.
5. MR. HAYS: That should be no problem
6. at all.
7. MR. PISCHKE: Do we have a
8. comprehensive list of things that we would like them
9. to add to this?
10. MS. DAVIS: I have a few things
11. written down that -- you want a spec sheet for the
12. boilers, also some info on the deaerator, a training
13. roster that's a little more concise, and then just
14. to kind of revise our procedure so it's more
15. navigable for you?
16. MR. PISCHKE: The navigable is not a
17. requirement. But one thing that is a requirement is
18. an organizational chart showing who reports into
19. whom. So what was another requirement that we
20. identified?
21. MR. BAUGHMAN: Well, for one, we've
22. got to have -- she mentioned the spec sheet.
23. MR. PISCHKE: Yeah. Is there
24. anything --
25. MR. BAUGHMAN: Yeah.

---

1. MR. PISCHKE: -- any more that we're
2. missing?
3. MR. HAYS: In the case of the
4. organizational chart --
5. MR. PISCHKE: It needs to be.
6. MR. HAYS: How far does that need to
7. go? For example, there are eight people to a crew.
8. If it's after 6:00 o'clock, that's night shift, and
9. the authority on site is the team leader. It's the
10. team leader and everybody underneath. And that's,
11. rather than a chart, is why we just did it with an
12. underlined statement that said that the team leader
13. or process technician had the authority to shut down
14. the boiler. Would you want the organizational chart
15. for the site management to be included?
16. MR. PISCHKE: Well --
17. MR. HAYS: We wouldn't include them
18. in the decision making for shutting down a boiler --
19. MR. PISCHKE: No.
20. MR. HAYS: -- for certain.
21. MR. PISCHKE: Go ahead.
22. MR. BAUGHMAN: I would do a
23. simplistic flow chart just showing those personnel
24. and who they report to.
25. MR. HAYS: Three blocks. Remote

---

1. There again, is there a placard showing emergency
2. procedures prominently displayed at the remote
3. monitoring station, and it's marked. Not
4. applicable, but it's under the 4.2.2, you're saying
5. that it's kept --
6. MR. HAYS: We -- yeah, with the.
7. MS. DAVIS: It's in the control room.
8. MR. BAUGHMAN: Yeah. It's in the --
9. MR. HAYS: From the remote monitoring
10. station, the operator can put their hands on any
11. site procedure in the binders on the spot, plus any
12. BASF personnel, they have access to business network
13. connected computers, and they have access to all the
14. procedures electronically, also.
15. So when we do procedure updates,
16. there's a checklist and a -- well, there's a
17. procedure for procedures for us. And we have to
18. list that we put these in certain binders in
19. certain locations and then also in the folder, and
20. there's a database for that.
21. MS. DAVIS: Part of that checklist
22. is, has it been sent out for training? You cannot
23. issue a procedure without sending it out for
24. training.
25. MR. PISCHKE: Okay. That's very
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<td>1. good. I mean, that's good practice. Absolutely.</td>
<td>1. network, its own fiber network for PC to PC or server to server. Through -- there again, it's redundant fibers, dual network switches, all that.</td>
</tr>
<tr>
<td>2. MR. BAUGHMAN: One thing that I'm</td>
<td>3.</td>
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<tr>
<td>3. just -- one other technical thing that comes up,</td>
<td>4. That system that actually controls handles -- the portion of the system that handles the burn management functions and controls and that sort of thing, we -- our burn management designer -- we were speaking with Chief about this earlier.</td>
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<td>4. because in the State of Tennessee, all these electronics, apertures, and so forth are to be UL labeled, and in the manual, it asks for a complete description of the computer remote monitoring system. I've got down that it's a monomer storage utilities DCS work station, will function as the computerized remote monitoring system.</td>
<td>5.</td>
</tr>
<tr>
<td>5.</td>
<td>6.</td>
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<tr>
<td>6. MR. HAYS: Yes. So you would like more detail as to a brand, that --</td>
<td>7.</td>
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<td>7. MR. BAUGHMAN: Well, it's a requirement. We've got to have a detail on the computer monitoring system as it is, more than just a generic. We're required also that this be a UL labeled system, and I don't have anything to be able to go through and analyze in that respect.</td>
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<td>8.</td>
<td>9. We had some committee members actually that were on the NFPA 85 committee for single-burn boilers that worked for Foxboro, which is our control system vendor. We had them design that portion, segregate the system into different control processors for each boiler. All that stuff is segregated in a way that's --</td>
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<td>9.</td>
<td>10. MR. BAUGHMAN: Can anything be monitored off-site?</td>
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<td>10.</td>
<td>11. MR. HAYS: No, sir.</td>
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<td>12. MS. DAVIS: So Section 6.2 in our procedure is all about the computerized remote monitoring system.</td>
<td>13. MR. HAYS: Not at this time. I will say, with our -- some planned upgrades, a DCS migration that we have coming up, the only way we would monitor anything would be through a PIMS information management system where there would a standard BASF firewall set up that actually prevents</td>
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<td>1. MR. HAYS: There's not a statement in there about UL listing. But yeah, the 6.2 that Brittany mentioned is where we just say that it's remotely monitored via the monomer storage utility dedicated work station, and that operators -- displays, in this case, alarm indications are duplicated between the work stations that are actually in the area, remotely in the area, and what is located in the control room. We also -- there was something in the checklist about -- is the system self-dynamic, self-checking, and that sort of thing, and these are -- these computer work stations that are part of the plant control system have dual network interface cards. So they're dual fiber networked, and each station is part of a group that alarms as a system. If one system fails to communicate or one channel fails to communicate, the alarm will be displayed on another station. So you wouldn't be trying to alarm, obviously, on the station that failed. MR. BAUGHMAN: Is this station -- is this web-based or hardwired? MR. HAYS: Well, the construction of the system is such that it's a -- it has its own connection from the Internet, from the outside world directly to our control system. So there's a dual -- there will be a dual firewall there. And BASF computers, business computers, can have a client for that that lives on their machine where a process engineer, like Brittany, might set up her own charts or trends, and that sort of thing, to keep an eye on everything, but not to use just for data analysis, not for operating anything.</td>
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MS. DA VIS: Section 8.0 is emergency But obviously --
That's the way they go to them. If the Board approves, then that's what we would like to do.
That's how that goes.
In this case, we were hoping that we could keep the procedures presented to the operators in the same way that they would find site emergency response plan, or anything else.
That's the way they go to them. If the Board approves, then that's what we would like to do.
But obviously --

MR. HAYS: -- yellow paper
necessarily.
MS. DAVIS: Right.
MR. BAUGHMAN: That's what we were speaking of earlier with the placard, because you were saying, this is going to be, actually, in a binder. Not necessary on the wall but in a binder to be accessed, correct?

MR. HAYS: Right. So, you know, if we -- for instance, if we were using the security guard and they have their security monitoring equipment and cameras and this, that, and the other, I certainly see where that's very useful for that sort of thing, where they're not necessarily boiler operators or part of the crew that's operating the plant.

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24. But obviously --
25. MS. DAVIS: Section 8.0 is emergency

1. shutdown in every single procedure on site. So in the event of an emergency, they would open the procedure and know exactly what section to flip to.
4. It's just a general format that we use.
5. MR. PISCHKE: Any other guidance --
6. MR. HAYS: We can certainly make a sign if it doesn't meet the requirement.
8. MR. PISCHKE: -- that we're missing?
9. MR. BAUGHMAN: Not that I can think of.
10. of.
11. MR. PISCHKE: Sam? So what are we --
12. how do we want to handle these --
13. MR. BAUGHMAN: Well, I don't know.
15. MR. PISCHKE: Okay.
16. MR. BAUGHMAN: But whether that's how we handle it or not is another thing.
18. MR. PISCHKE: Well, let me hear those personal --
20. MR. BAUGHMAN: Well, my end of it is, is it still goes back to if we approved a variance, we're approving a variance without any boiler info to approve it on other than two B&W boilers with a particular capacity. We've got no identification to them. So that would be up to the rest of the Board.

1. MR. HAYS: When we called the--
2. MR. PISCHKE: -- that we're missing?
3. MR. HAYS: We didn't understand that.
4. MR. PISCHKE: Another requirement
14. that Sam brought up is the highlighted emergency procedure sheet that looks something like that.
16. That needs to be included in this.

17. MR. HAYS: We had a discussion --
18. yes, sir. We had a discussion with Chief about that at one point in time, because we -- I think we printed them in color. We took the highlighted at one point in time, because we-- I think we --for instance, if we were using the security procedure and know exactly what section to flip to. That's my opinion.
20. MR. BAUGHMAN: Well, my end of it is, is it still goes back to if we approved a variance, we're approving a variance without any boiler info to approve it on other than two B&W boilers with a particular capacity. We've got no identification to them. So that would be up to the rest of the Board.

11. MR. BOWERS: Well, I kind of agree with you, Dave. There's not, to me, enough data here. There's a lot of data here, but not enough correct data for us to move forward. That's my opinion.
10. MR. PISCHKE: What's the urgency of this? You're obviously running -- you know --
12. MR. HAYS: Yeah. Is this something -- could we -- well, I guess you're saying you don't -- you can't say one way or another without some pressure vessel specs.
16. MR. PISCHKE: We'd like some more information to make a decision.
18. MR. HAYS: We were concentrating when we were putting this together --
20. MR. PISCHKE: On the procedure?
21. MR. HAYS: When we called the --
22. yeah. We were concentrating on the procedure, and then we called the Chief about this and discussed it over the phone and understood that we -- at the time we called, to get everything submitted in a 45-day
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<td>1. time frame, that we would need to move along pretty quickly at the time.</td>
<td>1. sound accurate?</td>
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<td>2. We didn't understand, you know, that maybe that you wouldn't have that information.</td>
<td>3. I mean, that sounds like an accurate description.</td>
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<td>5. You know. We know during a phone call with the Chief, he understood that we didn't have a variance pretty quick, but I didn't know, you know, that we were going to have -- that we would need this.</td>
<td>9. MR. HAYS: Well, it --</td>
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<td>MR. BOWERS: It's hard to get your tags on your car without your VIN number. You know.</td>
<td>10. MS. DAVIS: The operators are already doing regular round checks. It's, you know, how they we express that -- when they have to check on it every 20 minutes, that we may have to stop an operation, go check the boiler, and then go back.</td>
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<td>MR. BOWERS: That's what you're doing to us. You said, well, we've got these two boilers, but what's the National Board Number? Well -- MS. DAVIS: Is this something that I might -- can make a five-minute phone call and provide you with the information?</td>
<td>12. And they're -- like I said, they're already doing regular round checks, usually on hour intervals. It's just every 20 minutes -- it's every time they turn around, they're having to stop what they're doing -- if they're in the middle of working on something, stop, put that down, go check the boiler, write down that they're, you know, and then go back to it. It's just -- it's an inconvenience, really. You know. It would just provide us more flexibility with</td>
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<td>MR. BOWERS: No. You probably need to go back to the drawing board. MS. DAVIS: It's very easily accessible. We just didn't know that we needed to include it.</td>
<td>13. MR. BAUGHMAN: Well, having the information on the boiler itself, setting up some of these other things that we've asked to clean up isn't horrible. But how are you operating presently? You've already got people that are operating within the context of checking the boilers, so forth. So Mike asked the urgency and didn't quite get the follow-up to that. MR. HAYS: Well, we're -- oh. Well, certainly, we're not going to, you know -- we're not going to shut down the plant if the Board says no. You know. We're going to show up with a full team and operate the plant like we have been. This was a -- you know, this was providing some flexibility for this operator that does have some ground to cover in either plant, either of our plants. The next variance that we would be asking for is a similar situation where the monomer storage utilities operator is responsible for -- he's the boiler operator and main unloader on material. So we would -- MR. PISCHKE: It sounds to me like you have the personnel on site to do the work or to -- you know, you have the expertise. It's not that you aren't relying on people that don't have the expertise, it's just that you need a little variance in how you're applying this. Does that validate something?</td>
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<td>MR. BOWERS: Oh. I didn't quite get the follow-up to that.</td>
<td>15. MR. PISCHKE: What do you think, Dan, as far as what options --</td>
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1. MR. BAILEY: Well, you've certainly got -- I mean, you've got the option to -- if you don't feel like you have enough information to make a decision to approve the variance, you could move to hold it in abeyance until your next meeting and then they come back with the info that you need. You know. They talked about, you know, providing the information with a phone call, but at the same time, it's -- you know, it's not in the manual that you're approving, basically.

2. I mean, I don't guess that would be absolutely improper, but I guess I don't know how proper it would be. You know. So I mean, that's kind of your call on that, or you could vote to disapprove and make -- you know, they just have to come back. But I think if you're holding up just on, there's just not enough pertinent information that we need to see, then, you know, probably holding it into -- moving to hold it into abeyance until the December meeting is probably a better thing to do.

3. MR. PISCHKE: Would that allow them to continue as they are right now --

4. MR. BAILEY: Yes.

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1. MR. PISCHKE: -- until December?

2. MR. BAILEY: Yes. They would have to continue as they are right now until December.

3. MR. BAUGHMAN: Yeah. And the information -- there again, the boiler information, the inspection certificates, as you saw or listened to earlier in the meeting, when Ergon made their presentation on the thermal fluid system, the certificates didn't match up to the equipment from a PSI standpoint. And so by having all this data, it allows us to make an evaluation to look at things just to go over everything as it is. Whether you look -- or hire somebody else to look at it and put it in some format or whether you come back and make the presentation, we talked about even the system, because whether Foxboro or somebody else put this together, there again, looking at the UL listing and whether or not that that falls within UL or NFPA or whatever that may be. But making sure that our system actually has the ratings that it's supposed to. And all this information that you're going to present back to us allows us, then, to have that discussion and --

25. MR. HAYS: Right.

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1. MR. BAUGHMAN: -- moving forward.

2. MR. HAYS: Well, and what -- you know, we didn't understand it in the way that -- it's almost like that we're asking permission to operate the boilers in the first place. We kind of thought that that portion of it was way past, you know, and we were just asking for the 20-minute rule variance. You know. So we didn't include that. We concentrated on the procedures. It is a shame, considering that we just have all that information on site. It could have been easily -- that specific -- numbers pressures, relief valve information, relief valve studies, we have all of it. We have all of it. I have a -- if I had --

16. MR. PISCHKE: Is there anything that --

18. MR. HAYS: If I had a Wi-Fi password for this room, I could probably get to it with my --

20. MR. PISCHKE: And is there anything for this room, I could probably get to it with my --

21. that's -- of communicating our needs and --

23. MR. BAUGHMAN: Something to discuss.

24. MR. BAILEY: Was all that covered on the checklist?
| MR. HAYS | Water circulation and that sort of thing.  
| MR. BOWERS | That's pretty generic, though, I think.  
| MR. PISCHKE | It is. It's not the operating data that we would --  
| MR. HAYS | As far as what our operators -- the information on the system -- obviously, the National Board Numbers or anything like that wouldn't normally be a concern to the operators, but for our normal operating procedures, pressures and things like that are mentioned in that same procedure that you just had. Our normal operation potential -- normal operating range and potential deviations give some steam pressure, water level information, chemicals associated with water treatment, 02 airflow, and that type of information that the operator would use.  
| MR. BOWERS | The information I would like to see is, one, the National Board number, number two, the Tennessee Number, manufacturer, the model of the boiler, date built, maximum -- the output of the boiler, the MAWP of the boiler, the fuel, what type of fuel the boiler uses, operating pressure, and safety valve capacities and safety valve settings. Is there anything else?  
| MR. HAYS | So we need -- yeah. We need -- yeah. You're wanting to see relief valve studies and --  
| MR. BOWERS | Yes.  
| MR. HAYS | And things like that.  
| MR. BAUGHMAN | Well, not so much studies --  
| MR. PISCHKE | Not studies --  
| MR. BAUGHMAN | I'm sorry.  
| MR. PISCHKE | Go ahead.  
| MR. BAUGHMAN | Not studies, but the data. The manufacturer, the model number, and the capacity.  
| MR. HAYS | Yeah.  
| MR. BAUGHMAN | There's no --  
| MR. HAYS | That's where we're -- well, that's the way we store that information.  
| MR. BAUGHMAN | Got you.  
| MR. HAYS | It's in a --  
| MR. BAUGHMAN | Okay.  
| MR. HAYS | It's part of a study that has a -- not only the serial number, model number, orifice size, that sort of thing --  
| MR. BAUGHMAN | Got you.  
| MR. BAUGHMAN | -- of the relief valve.  
| MR. HAYS | -- too. You know.  
| MR. BAUGHMAN | Yeah. They'll take your word for it.  
| MR. BAUGHMAN | Just a fact sheet.  
| MR. PISCHKE | Yeah. One the size of this room.  
| MR. BOWERS | A 800-PSI boiler. We'd just like to know what we're looking at. You know?  
| MR. PISCHKE | Yeah.  
| MR. HAYS | Yeah. That's --  
| MR. BAUGHMAN | -- a little bit -- but yeah, just --  
| MR. HAYS | That's where we would get that from. Now, in that case, we may want to put this in a separate -- I don't know. We can put it in a separate document. You might want to see better evidence of it than taking our word from a Word document --  
| MR. BOWERS | Oh, we'll take --  
| MR. BOWERS | Yeah. We'll take your word for it.  
| MR. BOWERS | Yeah.  
| MR. BAUGHMAN | Yeah.  
| MR. BOWERS | Yeah. We'd just like to know what we're looking at. You know?  
| MR. PISCHKE | Yeah.  
| MR. HAYS | Yeah. And that's -- all we have was a -- you know, the --  
| MR. BOWERS | Yeah.  
| MR. HAYS | And the next variance coming up, it would -- they were horsepower-rated, so they were --  
| MR. BAILEY | Well, I was going to suggest --  
| MR. HAYS | We have the horsepower on them.  
| MR. BAILEY | -- if you have the same issue with the next variance --  
| MR. HAYS | Oh, yeah. I wish -- yeah.  
| MR. BAILEY | -- instead of going through all of it, you know --  
| MR. HAYS | Yeah.  
| MR. BOWERS | If it's the same thing --  
| MR. HAYS | If we could have -- well, if -- yeah. If we could have -- certainly, if we knew this before lunch and had taken lunch, we'd have had it for you. It's that -- it's just that easy to get our hands on that information. So --
1. MR. BAUGHMAN: Can you also get that information on the computerized remote monitoring station, as far as the UL listing and so forth?
2. MR. HAYS: Well, it's a Foxboro I/A system, so data sheets are available on the Internet. You know. That type of thing.
3. MR. BAUGHMAN: If you could produce something that instead of me going on the Internet, that would be --
4. MR. HAYS: Yeah. That's a -- perfect.
5. MR. HAYS: That's a -- that's something that we can get.
6. MR. BAUGHMAN: Thank you.
7. MR. HAYS: For sure. It would be data sheets for all the -- for a lot of components, but --
8. MR. BAUGHMAN: Well, the system itself -- not so much the components, but the system itself should be a UL packaged unit, instead of identifying every component that's in that system.
9. So when they produce the system, that system itself should be UL listed. And they'll know exactly what to produce as far as documentation in that respect.
10. So like, with your Fireye components, you just want documents and references together? Since it's not useful information to our operators. You just want documents and references in a list.

11. MR. BAUGHMAN: Can you also get that information on the computerized remote monitoring station, as far as the UL listing and so forth?
12. MR. HAYS: We --
13. MR. BAUGHMAN: They would have that in itself. But the computer monitoring system itself, because it's integral to the monitoring and the operation of the boiler, needs to have a labeling to it. So Foxboro, if they're the ones that developed it, they would be able to have that labeling. So like, with your Fireye components, to produce as far as documentation in that respect.
14. MR. HAYS: Right.
15. MR. PISCHKE: Have we given them enough information?
16. MR. BAUGHMAN: I'd say I think Brittany's written down a pretty good checklist.
17. MS. DAVIS: Yeah.
18. MR. BAUGHMAN: And Chris is --
19. MR. PISCHKE: Do you feel like you understand what we're looking for now?
20. MR. HAYS: Yes. We feel like we do, or I do. Do you want it as a -- do you just want it as a separate document? Do you want that information as a separate document, just to put together? Since it's not useful information to our operators. You just want documents and references in a list.

1. MR. BAUGHMAN: Just like any of the other manuals, when they'd send in a document, the information that we've got, just to look at what we had previously, would list the boiler, the equipment description. Same thing with the --
2. MR. CHAPMAN: A-1.
3. MR. BAUGHMAN: Thank you. Same thing with the equipment description. Any of it is going to be just separate within the binder itself. So it would all be --
4. MR. PISCHKE: And it can just be an appendix.
5. MS. DAVIS: One thing that would be very helpful is an example for us. I mean, all we had was this checklist, and some of the questions are pretty vague, so like, for example, we thought we answered some questions and we really didn't. So if there's an example we could use to go by or, you know, just to kind of get a feel of how much information or how little information you want, because I think we overshot a lot and we undershot a lot. But without an example, we have no idea what you're looking for.
6. MR. BAUGHMAN: And there may be a company willing to do that, or Sam, you might have some examples of --
7. MR. HAYS: We --
8. MR. BAUGHMAN: They would have that in itself. But the computer monitoring system itself, because it's integral to the monitoring and the operation of the boiler, needs to have a labeling to it. So Foxboro, if they're the ones that developed it, they would be able to have that and produce it.
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1. MR. BOWERS: Well, what you've
done --
2. MR. BAUGHMAN: If you've never been
here before, that's true.
3. MR. BOWERS: Yeah. On your own,
you've done a good job. I think you just don't have
a lot of information, but you've put together a lot
of information for your first time here. Yeah.
4. MR. HAYS: Yeah. That's the shame of
it all. I mean, it was so much harder to get some
of this information that we -- to put together what
we did get, and we could just -- you know, a call to
the maintenance managers at each plant gets us all
this other stuff packaged together. I mean, it
was --
5. MR. BAUGHMAN: Who do you work -- who
services you down there in Chattanooga?
6. MR. HAYS: Who maintains the boilers?
7. MR. BAUGHMAN: Yeah.
8. MR. HAYS: So mechanically, it
would -- IB&M services the boilers mechanically.
9. MR. BAUGHMAN: Randy should be able
to be of help.
10. MR. CHAPMAN: Yeah.
11. MR. BOWERS: Well, those guys don't
keep the -- well, they may keep the information, but
I know we have it. We have it in our maintenance
records. We have to have that.
12. MR. BAUGHMAN: Yeah. I'm just saying
as far as being able to give a template to --
13. MR. HAYS: Oh, and give a template.
14. MR. BAUGHMAN: Yeah. IB&M,
Combustion & Controls, WARE, all --
15. MR. HAYS: Yeah.
16. MR. BAUGHMAN: -- of those companies
that are down there --
17. MR. HAYS: Yeah.
18. MR. BAUGHMAN: -- would be -- could
be a help to you.
19. MR. HAYS: I know one of the folks
that we work with -- I had spoken to Steve Slatten
(phonic) --
20. MR. BAUGHMAN: At IB&M.
21. MR. HAYS: -- at IB&M about how --
you know, how these different companies are doing
it, because we live inside one fence and we don't
know how -- you know, not being a boiler company --
or boiler company representatives, we don't see it
22. MR. BOWERS: And your --
23. MR. HAYS: So --
24. MR. BOWERS: And your boiler
inspector might be able to help you.
25. MR. HAYS: Yeah. Well, yeah. I
think he thought -- we did speak to him about it.
26. Of course, he can't give us specific advice. I
think he thought we would have an easier time than
we did. So -- considering that he sees how we
operate. But there again --
27. MR. BOWERS: Yeah. It's not that
you're not --
28. MR. HAYS: We didn't -- you know, we
didn't a get a, if you don't show up with this,
they're throwing -- you know, they're throwing your
case away, and that type of information. But --
29. MR. BOWERS: Yeah.
30. MR. BAUGHMAN: Well, I feel like
you're on top of the game. I think it's --
everything's going to head the right direction. I
just -- we've had the motion to discuss and we've
pretty well discussed. I just feel like we're at a
point where we need to get it revised so that we can
come in and have some further discussion and then

1. MR. PISCHKE: Do we need a motion or
can we --
2. MR. BOWERS: I think --
3. MR. PISCHKE: -- move to table it?
4. MR. BOWERS: I think if you want to
kick it down the road, you need a motion either to
table it or hold it in abeyance until the December
meeting. And if you're saying that you've got the
same issue on the very next item coming up, you
could probably do both of them in one motion.
5. MR. BOWERS: Yeah.
6. MS. DAVIS: Well, is it possible,
during our next break -- I mean, we can provide the
model, the date built, the maximum output, the MAWP,
the fuel, the operating pressure, and some of the
safety valve -- we can provide that in a five-to
ten-minute phone call for the next, you know,
variance. And if that's going to be enough that we
can keep moving, then we would like to, you know,
look at the second one. But if -- you know, if
it's -- if a written piece of paper on my end and we
just tell you these things is not appropriate,
then -- you know --
20. MR. BOWE: Will you have the
1. Mr. Hays: Is that good enough?
2. Yeah. Is that good enough?
3. Mr. Baughman: Sure. And then --
4. well, just looking at -- one of the previous
5. variances we were looking at was the control system
6. description, and it gives the description of the
7. flame monitoring system, the system itself that is
8. integrated back in to the computer system. So it
9. gives us this technical information --
10. Mr. Hays: Yeah.
11. Mr. Hays: -- on what we're
12. looking at. And so to further that, I would put
13. this additional data that's needed into a revised
14. manual, and there again, asking for direction.
15. Because you're not reinventing the wheel by any
16. stretch. You've come into this without really
17. knowing what all we were looking for.
18. So if you can go back in and possibly
19. pick up a sample or get advice from Steve or
20. anybody that's been involved with these things,
21. you should be able to get some guidance on that.
22. Mr. Hays: I have a -- so from the
23. folks that provided the burn management system for
24. this plant, for sure, I do have a -- I have an NFPA
25. review from them where we had them come on site and

---

1. Foxboro information that I'd asked for within a
2. phone call?
3. Mr. Hays: We can -- not -- you know,
4. not as a system, but yeah, all the parts and
5. components of a -- you know, of a Foxboro system.
6. There are optional ways that you can -- that they
7. construct these things. So as far as control
8. processors, I/O modules, and that sort of the
9. thing --
10. Mr. Baughman: The question was about
11. getting the UL labeling --
12. Mr. Hays: Yeah.
13. Mr. Baughman: -- making sure that
14. it's a UL listed system, not all the individual
15. components.
16. Mr. Hays: Right.
17. Mr. Baughman: So I hope I didn't
18. miscommunicate, but just that the system is a UL
19. listed system.
20. Mr. Hays: Yeah. And that would
21. be -- there's not, like a -- there's not a Foxboro,
22. you know, boiler control box, so to speak. There's
23. not this animal that's a boiler control box. It was
24. constructed -- NFPA 85 mentions, you know, the way
25. that we should have our control system arrangement

---

1. if we use DCS. Or gives options for safety
2. instruments and systems and using -- you know if you
3. do a PHA and that type of thing. So we just went to
4. the folks on the committee and thought that we were
5. going to the right place.
6. Mr. Baughman: For me, that's the
7. additional description that I'm looking for, because
8. right now, I've just got a computer remote
9. monitoring system that's using this monomer, what
10. have you.
11. Mr. Hays: Yeah.
12. Mr. Baughman: It doesn't explain.
13. It doesn't give me any source of evaluation on its
14. construction, on anything. It describes it --
15. Mr. Hays: Right.
16. Mr. Baughman: -- but it doesn't let
17. me go through and make any analysis at all from a
18. technical standpoint. And being a boiler guy,
19. that's what I do.
20. Mr. Hays: Yeah. We should -- so for
21. things like that, we -- would a general -- would a
description, such as, components made up of such and
22. such pieces designed by this person, professional
23. engineer, NFPA Committee member, is that --
24. Mr. Baughman: It'd be a big help.
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<tr>
<td>1. MR. PISCHKE: For the variance.</td>
<td>1. It started on Monday the 18th and will conclude on Friday the 22nd.</td>
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<td>2. MR. HAYS: Yeah.</td>
<td>2. Mr. Pischke: Thank you.</td>
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<td>3. MS. DAVIS: The remote operator, the boiler operator, and the team leader.</td>
<td>3. MR. CHAPMAN: Okay.</td>
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<td>4. MR. HAYS: Yeah. Yeah. Yes, we</td>
<td>4. MR. PISCHKE: Thank you.</td>
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<td>5. just -- in that case, we just made a statement. We didn't make a chart. We made a statement that these two positions have the authority.</td>
<td>5. MR. PISCHKE: Uh-huh.</td>
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<td>6. MR. HAYS: -- you know, in these cases, these guys, they would -- if they shut it down, they would be the ones to start it back up.</td>
<td>6. MR. PISCHKE: The next item is -- is there someone here from Rinnai that would -- if you gentlemen would like to come forward and be heard.</td>
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<td>7. So they understand the hazards, the effects on the rest of the plant, and the processes.</td>
<td>7. Please identify yourself.</td>
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<td>8. MR. PISCHKE: I think from a practical standpoint here, you're doing the right things operationally. It's just describing it is the key.</td>
<td>8. MR. SILER: Jason Siler.</td>
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<td>9. MR. BOWERS: Do you want to move this to the December meeting?</td>
<td>9. MR. DORROUGH: Kelsey Dorrough.</td>
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<td>10. MR. BAUGHMAN: It's up to you to make a motion.</td>
<td>10. MR. SCAFÉ: And Rohan Scafe.</td>
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<td>11. MR. BOWERS: Okay. I make a motion we move this -- both locations to the December meeting and bring back the data that we requested.</td>
<td>11. MR. PISCHKE: Thank you. Okay. Go ahead.</td>
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<td>12. MR. FOX: I'll second that motion.</td>
<td>12. MR. SCAFÉ: All right. I first want to thank everyone for giving us the opportunity to speak with you today.</td>
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<td>13. MR. PISCHKE: I'll call -- any more discussion? Questions? I'll call for the question, and all those in favor, say, &quot;aye.&quot;</td>
<td>13. THE REPORTER: Could you state your name again, please?</td>
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<td>15. MR. BOWERS: Aye.</td>
<td>15. THE REPORTER: Thank you.</td>
</tr>
<tr>
<td>16. MR. BAUGHMAN: Aye.</td>
<td>16. MR. SCAFÉ: I am the assistant design engineering manager for Rinnai. And to my left is Jason Siler, director of engineering solutions. And Kelsey Dorrough; he's our engineering lab manager --</td>
</tr>
<tr>
<td>17. MR. PISCHKE: Opposed? Not voting?</td>
<td>17. MR. SCAFÉ: He's our engineering lab and product certification manager. And the -- just to give you a brief</td>
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<tr>
<td>19. MR. PISCHKE: Okay. This moves us to part nine of the agenda of open discussion items. And the first one is the status of the 2017 Tennessee Boiler Safety Conference. Deborah?</td>
<td>20. MR. SCAFÉ: I am the assistant design engineering manager for Rinnai. And to my left is Kelsey Dorrough; he's our engineering lab manager --</td>
</tr>
<tr>
<td>20. MS. RHONE: Thank you. Deborah Rhone. Just wanted to let everyone know, as far as the boiler safety conference, what we've done this year is we're actually holding a conference for our State inspectors. We're conducting it this week.</td>
<td>21. MR. SCAFÉ: And the -- just to give you a brief</td>
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</table>
1. background about Rinnai, we are a water
2. heating/space heating products manufacturer. The
3. core of our business is a tankless water heater,
4. and that is what I want to speak to today. And I
5. do want to speak objectively for the tankless
6. industry, in general, and not in particular to
7. Rinnai.
8. And the reason we are here is to
9. share a code concern as it relates to the
10. inspection clearance for tankless water heaters.
11. I do want to point out that the tankless water
12. heater is not a boiler; it is not certified as a
13. boiler. But I believe the State of Tennessee is
14. using a code clearance that is intended for a
15. boiler to tankless.
16. And the clearance that's in question
17. is the 18-inch separation that is required,
18. according to the code, between the water heaters,
19. or on the -- off the side of the water heaters for
20. the purpose of inspection, and that's provided.
21. The water heater -- a tankless water heater is
22. above 100,000 BTU or higher -- 100,000 BTU --
23. yes -- or higher.
24. I would like to speak to the concern
25. and the installation challenges that we're seeing

1. in the field and offer a proposal for
2. consideration to make a change to the existing
3. code. If you turn to the third page, I've got a
4. few graphics there. The one on the left shows --
5. the unit on the extreme left shows a mockup
6. installation drawing, if you will, or image, if
7. you will, showing the required 18-inch separation.
8. And this is specific to Tennessee only. This is a
9. wall mount version. And on the right, there is a
10. free-standing version of that. Again, showing the
11. separation in between units in a back-to-back
12. configuration.
13. The standard installation is to your
14. far right of each side there. So for a two-unit
15. wall rack, for example, that is exactly what we
16. typically do outside the State of Tennessee. The
17. same for the image on the far -- on the second
18. side, excuse me, on the far right.
19. With this code, what it's doing,
20. essentially, is increasing the mechanical space up
21. to 60 percent in most cases. I'll give you an
22. example. So a six-unit installation normally
23. would take up about 12 feet of wall space. With
24. the code today, and because we have to maintain
25. the separation, that takes up, roughly, 20 feet.

1. Now, the concern is, you know, I
2. size, I design, I quote a lot of commercial
3. systems around the country, mostly major
4. renovation or new construction. And what we're
5. seeing is a timing of the mechanical space. And
6. what we're also seeing is the mechanical equipment
7. spec, because -- based on the space constraints or
8. the space that they want to maintain to the
9. building. And so they're calling out products
10. around the footprint, if you will, to fit in a
11. very tight mechanical space.
12. In commercial, you know, we see
13. major, major technical -- technological
14. advancements in mechanical equipment, water
15. heaters, included. They're getting smaller and
16. smaller. If you think about it, a boiler of today
17. is not the same size as one 20, 50, or even five
18. years ago. They're much smaller, much more
19. efficient. And that's what's driving the
20. mechanical space change in commercial
21. establishments today.
22. And what customers or owners or
23. businesses are looking for is to maximize that
24. space so they can grow their business. It creates
25. a reduction in construction of material and cost,

1. as well. And it's got significant environmental
2. that benefits, as well.
3. So the disadvantage to the industry,
4. in general -- and I won't say any names. And if
5. you noticed, there's no name on the presentation
6. that I printed out here today -- is it requires
7. much, much larger mechanical spaces. I've
8. mentioned earlier up to 60 percent, in most cases,
9. or even more. It puts us in a position where we
10. won't be able to compete, because we wouldn't be
11. cost effective to an owner. We wouldn't be able
12. to sell our products, unfortunately.
13. Our solution would be limited to
14. extremely small applications. In most cases,
15. single units, maybe at most, two units. Outside
16. of that, it's got to be on the outside. And even
17. on the outside, we still have to maintain the
18. mechanical -- the spacing. Our competition here
19. would be very limited. And I just want to point
20. out, too, that Tennessee's actually the only state
21. in the union where I have personally seen this
22. code. I don't see it anywhere else at all.
23. MR. CHAPMAN: Ohio.
24. MR. SCAFÉ: We do business in the
25. U.S. and Canada, as well, and even outside of North
1. America. And essentially, what this code is
2. allowing is for the code to dictate the product that
3. goes into the mechanical space.
4. And I do understand, in speaking with
5. you, Mr. Chapman, that the core focus of Code, the
6. Tennessee Code, is to -- is safety. And I do get
7. that and I understand that fully. And that's why
8. I've asked the gentleman on my left here, both
9. gentlemen on my left here, to come in and speak to
10. the safety of our product.
11. Kelsey has a extended background in
12. certifying water heating products, not only for
13. our Rinnai but for the tank guys, as well. He has
14. a vast experience in data collection, testing the
15. key points, temperature, et cetera. And also,
16. vast experience in certification of water heating
17. products and boiler products, as well.
18. So with that, I will let Jason and
19. Kelsey speak to the testing and the data, if you
20. will.
21. MR. BAILEY: I have a question. When
22. this handout was made, I believe you're citing the
23. rules as they were prior to the rules being revised
24. in 2016, because some of the rules you're
25. referencing, like 0800-03-03-.04(13)(a), we don't

1. even have that. That's not even in the rules
2. anymore. It's been rearranged. That same language
3. is somewhere else.
4. MR. SCAFÉ: Well, that's the other
5. concern that we were having. I have read
6. extensively through the Boiler Code, the 0800-03-03,
7. and there's nothing in that code about tankless or
8. instantaneous water heaters. This -- that code is
9. specific to boilers. This is really the only
10. document that I could find through the State of
11. Tennessee that applies a clearance to tankless.
12. MR. BAILEY: Okay. But my only point
13. is, is that the rules you're referencing in -- I
14. just wanted the Board to know that the rules that
15. are being referenced in here is prior to them being
16. revised. So if you try to find a particular
17. paragraph based on what is written here, it's
18. probably in a different part of the rules than when
19. it was when this was created.
20. MR. SILER: You said it was done in
21. 2016?
22. MR. BAILEY: '16.
24. MR. BAILEY: Was when they were
25. revised, yes.

1. MR. CHAPMAN: And they are on our
2. website.
3. MR. BAILEY: Yes.
4. MR. SILER: Okay.
5. MR. BAILEY: And I just wanted you
6. guys --
7. MR. SCAFÉ: Right.
8. MR. BAILEY: -- to know that, as
9. well.
10. MR. SILER: Yeah. Thank you.
11. MR. BAILEY: Yeah.
12. MR. SCAFÉ: But that clearance, as
13. you know it today still applies, correct? The
14. 18-inch.
15. MR. BAILEY: Yeah. The --
16. MR. SCAFÉ: Two boilers.
17. MR. BAILEY: Yeah. That -- yeah. I
18. don't think the language came out, it was just --
19. MR. SCAFÉ: Okay.
20. MR. BAILEY: -- rearranged.
21. MR. SCAFÉ: Okay.
22. MR. BAILEY: The rules are rearranged
23. to make them, hopefully, easier to read. So -- I'm
24. not saying that language is no longer in the rules,
25. it's just not where you're say it's at --

1. MR. SCAFÉ: I understand.
2. MR. BAILEY: -- in this publication.
3. MR. SILER: Okay. I'm going to walk
4. through, as Rohan mentioned, some of the safety
5. standards and testing, as they pertain to the water
6. heating category that we sell products under. And
7. all the tankless that we sell, they're all above
8. 75,000 BTUs so that they have to be certified to the
9. ANSI Z21.10.3 safety standard. This is an industry
10. consensus safety standard, you know, with specific
11. focus on the construction of the product to ensure
12. safety requirements for instructions to come with
13. the product so the product is properly installed to
14. ensure safety. Safety labels that have to be
15. applied to the product.
16. And some of the safety testing
17. examples -- and these are not inclusive of
18. everything that's in the standard, but some of the
19. ones that we wanted to bring up and bring some
20. examples to display here are establishing minimum
21. clearances to combustibles, combustion testing,
22. burner and ignition characteristics, and burn
23. hazard. Go to the next page.
24. This page shows a typical setup for
25. determining minimum clearance to combustibles.
And we refer to it as -- and the test -- and it refers to it as the wall, floor, and ceiling test, per the ANSI Z21.1.3 standard. So I'll let Kelsey talk a little bit more about the actual test and the setup.

MR. DORROUGH: So the test requires that we run a maximum vent length as we test and do that through our design and development. We require a maximum vent length through testing. That maximum vent length is installed on the water heater, and we are required to set that to the maximum set point to obtain the maximum out-of-the-water temperature and therefore, heat the water heater up to its maximum condition in a closet, closed up.

And what we do -- we will -- as you see it in there, we'll box this up to zero clearance. We're actually touching the water heater all the way around. There are thermal couples -- the dots on the walls indicate thermal couples there. They're placed six inches apart vertically and horizontally. And then the floor beneath that, they're spaced three inches apart.

We monitor those for a period of -- well, we reach equilibrium, and once we reach equilibrium, then we'll record those temperatures.

The requirements for the walls that -- the walls, the ceiling, and the floor in contact or adjacent to is 117 degrees plus room; that's the allowable. And the floor under the water heater is 90 degrees above room.

And so on the other -- the next page over, we've given you an example of actual test data on one of our products showing our maximum temperatures under these conditions on the left, back, and right walls.

MR. SILER: So -- and all this was based on one of our largest tankless models of 199,000 BTUs. And each segment, if you start off on your left, this is actually showing the left wall temperature, the back wall temperature, and the right wall temperature. And each one of those that we actually had callouts shows what the maximum temperature that was read during the wall, floor, ceiling test of, you know, 79 degrees on the max left wall, 106 degrees on the back and 89 degrees on the right wall.

Go to the next page. This was another test that we wanted to talk further about. It is the burn hazard test. So we -- this test, we actually have to apply a grid to the water.

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2. refers to it as the wall, floor, and ceiling test,
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1. there are other temperature-related tests that we
2. do, such as components -- ignition components, burn
3. components, burn -- flame spreader temperatures. So
4. it's not limited to just the cabinet and the walls
5. and surrounding -- the area that surrounds it, but
6. it's also internally.
7. We also will measure the internal
8. components, as well, to ensure the safety of that,
9. even the electrical wiring. We get down to that
10. to make sure that, under the conditions of a fire
11. hazard condition, that the installation on the
12. wiring does not soften to the point to where it
13. arcs against something in the -- a metal -- or
14. wire to wire, or something to that nature.
15. MR. SILER: On the final slide here,
16. we wanted to just discuss further and understand
17. what the proper protocol and process to formalize a
18. request for the -- a rule amendment. Our request is
19. to, you know, eliminate the arbitrary 18-inch
20. requirement -- required clearance that's currently
21. in the code.
22. Our request is to replace this
23. clearance with the manufacturers' minimum required
24. clearances, which is determined based on the ANSI
25. testing, plus any required clearances for
1. serviceability, if that is necessary. And we
2. provided an example on the right-hand side from
3. one of our operation and installation manuals that
4. shows all the clearances to combustibles,
5. non-combustibles, you know, top, front, back,
6. side, ground, and the vent.
7. MR. SCAFE: So in closing, we're
8. hoping that you will consider a change to the
9. current code to accommodate what Mr. Siler has just
10. mentioned. And with that, I'll open to questions.
11. MR. PISCHKE: All right. Yeah. I
12. have a couple questions myself.
13. MR. BOWERS: Open discussion?
14. MR. PISCHKE: Yeah.
15. MR. BAUGHMAN: It's open discussion.
16. MR. PISCHKE: Well, we aren't voting
17. on this. Do we need a motion?
18. MR. BAUGHMAN: Uh-uh.
19. MR. BOWERS: Okay.
20. MR. BAUGHMAN: No. This is open
21. discussion.
22. MR. PISCHKE: Right now, this is open
23. discussion.
24. I guess I'd like to understand the
25. history of the 18-inch --

1. MR. SMITH: If I can interject,
2. Jesse Smith, State boiler inspector. The clearances
3. they're talking about isn't a consideration of
4. safety or combustibility. It stems from the
5. National Board Inspection Code Requirement that we
6. have three feet of inspection clearance around every
7. item we inspect. And you can see where that would
8. get a little cumbersome.
9. So the State of Tennessee, sometime
10. back -- I believe it was probably '98, or '98 --
11. there was a Boiler Board determination that we
12. could get by with 18 inches on water heaters and
13. some boilers. Of course, you've got bigger
14. boilers that require overhead and clearances. But
15. for what you're dealing with here, it's -- 18
16. inches was determined. And I guess it is kind of
17. arbitrary, but it's still based on the ability to
18. get in and inspect adequately around it.
19. Now, as the technology's changed and
20. equipment's become more efficient and less
21. combustible -- want to be put in a more compact
22. area, then the 18 inches may seem excessive. And
23. the only reason you're falling into that category
24. is because Tennessee's also unique in the fact
25. that it inspects non-ASME code water heaters,

1. which is primarily what we inspect and what's
2. overseen by the National Board Inspection Code.
3. We inspect them as non-ASME code water heater, but
4. they have to conform to all of the other
5. inspection requirements.
6. MR. SILER: So is that the same -- so
7. if I have a 199,000 BTU 100-gallon tank water
8. heaters, it's subject to the same 18-inch clearance?
9. MR. SMITH: Yes. Because it's over
10. 100,000 BTUs.
11. MR. SILER: If it's over -- okay.
12. MR. SMITH: So -- and then, you know,
13. the only exception would be if you guys make any
14. water heaters that are -- over 200,000, then they're
15. no longer to that ANSI standard. They're built to
16. ASME code.
17. MR. SILER: ASME. Understand.
18. MR. SMITH: But that's what the 18
19. inches is based on. It's actually us seeing that
20. three feet was kind of ludicrous and that 18 inches
21. was a compromise. This would be a good time to
22. introduce, due to the newer technologies, that if --
23. even if this were an instantaneous water heater, you
24. know, they may consider a smaller clearance.
25. Basically, what we're -- the
1. able to get to the information on it. You know.
2. You might have, as Rinnai, might have it on the
3. front. You've got A.O. Smith, you've got Norton,
4. you've got Bock. Where are they putting theirs? So
5. will they -- will we be able to get to their
6. information?
7. MR. SCAFÉ: Right. I understand
8. that.
9. MR. CHAPMAN: Yeah.
10. MR. BOWERS: I think on the Rinnai,
11. it's on the side, isn't it?
12. MR. SCAFÉ: It is on the side.
13. MR. CHAPMAN: It is on the side.
14. MR. SCAFÉ: But we can relocate it --
15. the rating plate anywhere.
16. MR. CHAPMAN: Yeah. But see,
17. that's -- you guys can. But what about the rest of
18. the companies? Because, like, we have to think as a
19. whole --
20. MR. SCAFÉ: Right.
21. MR. CHAPMAN: -- not just one
22. company. We have to do it as a whole. Am I right
23. on that, Mr. Bailey?
24. MR. BAILEY: Yes.
25. MR. PISCHKE: Sure. I mean, yeah.

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1. MR. CHAPMAN: Yeah.
2. MR. PISCHKE: We had another
3. question.
4. MR. HOLT: Yeah. I was going to say
5. that.
6. MR. PISCHKE: Stand up and --
7. MR. HOLT: Oh, Tim Holt, State
8. inspector. 200,000 and greater, which you make
9. some, I believe. They don't --
10. MR. SCAFÉ: Not on the tankless.
11. MR. SILER: Not on the water heaters.
12. MR. HOLT: That must be -- yeah.
13. MR. SCAFÉ: There's some other
14. guys -- yeah.
15. MR. DORROUGH: Not anymore. We used
16. to --
17. MR. HOLT: They have a National Board
18. Number, and all that information is on the front
19. behind the cover on the plaque right on the tubes.
20. You know. And that's part of the main thing is
21. being able to -- if you -- I've gone in where you've
22. had -- they've had Rinnais right next to each other.
23. I can't get the information. I can't see it. I
24. can't -- anything. And it has to have that to be
25. able to register. Like, it's -- you know. And

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1. there's nothing inside, either. I've taken the
2. front off. There's nothing inside.
3. MR. SILER: So the information that
4. you need is rating plate info.
5. MR. HOLT: Yeah. The serial
6. number --
7. MR. SILER: That's what you guys are
8. looking for.
9. MR. HOLT: -- the BTUs, all this --
10. and it's all on the side.
11. MR. SILER: Right.
12. MR. HOLT: It needs to be able to be
13. accessed as well as being able to get around it and
14. check all the -- so the -- and the clearances of 18
15. inches is any vessel, water heater, boiler,
16. anything, 100,000, 200- and 400,000. It can be a
17. water heater that's a six feet by three feet; they
18. have to have 18 inches also. And so, you know, it's
19. just not tankless.
20. MR. BAUGHMAN: So I've got a question
21. that you guys can probably answer.
22. MR. CHAPMAN: Okay.
23. MR. BAUGHMAN: When these units are
24. manifolded, is, then, the output considered a total
25. of all manifolded units?
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<td>2. MR. CHAPMAN: Yes.</td>
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<td>3. MR. SCAFE: Correct. Yes, sir.</td>
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<td>4. MR. SILER: Correct.</td>
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<td>5. MR. BAUGHMAN: Okay. Any differences or any testing been done at elevation?</td>
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<td>6. MR. DORROUGH: We test up to --</td>
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<td>7. MR. SCAFE: We have --</td>
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<td>8. MR. DORROUGH: Yeah. We test up to 10,000 feet. We actually take our product out to Colorado and we'll test up to -- we test at three different levels at 5,500, 7,700, and 10,000, too.</td>
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<td>9. MR. BAUGHMAN: When you get there, how's your input? Having to change or are you just adding modules instead, because our input's going to change.</td>
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<td>10. MR. DORROUGH: It derates and we test at that derated value. There is a natural derate that manufacturers can opt to take. It's -- I believe it's 4,000 per 1,000 feet, I believe, of elevation. I don't know right off the top of my head.</td>
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<td>11. MR. SCAFE: It's around three and a half percent --</td>
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<td>12. MR. DORROUGH: Yeah.</td>
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<td>13. 5,000. Well, that's what --</td>
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<td>14. MR. DORROUGH: We choose not to do that, because we want to go up -- we will test our products so that we can optimize our systems at elevation.</td>
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<td>15. MR. BAUGHMAN: Sure.</td>
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<td>16. MR. SILER: So we actually have switches inside the product that says -- you know, when you look at the instructions, it says, if you're at 5,500 feet, if you flip this DIP switch, you're at 10,000 feet if you flip this DIP switch.</td>
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<td>17. So it'll take the natural --</td>
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<td>18. MR. SCAFE: Correct.</td>
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<td>19. MR. SILER: -- natural derate. So -- MR. SCAFE: And deration is factored into our calculations for sizing, as well, at -- elevation.</td>
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<td>20. MR. BAUGHMAN: Very good. Is there an NBIC reference to installation clearances for these?</td>
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<td>21. MR. CHAPMAN: Not for --</td>
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<td>22. MR. PISCHKE: Not specifically.</td>
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<td>23. MR. BAUGHMAN: Do you all know?</td>
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<td>24. MR. PISCHKE: I don't think</td>
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<td>2. MR. BAUGHMAN: Okay.</td>
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<td>3. MR. SILER: I don't think so.</td>
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<td>4. MR. SCAFE: I don't think -- not that I'm aware of.</td>
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| 5. MR. BAUGHMAN: Okay. Well, it's like with the boilers, you know, boilers have gotten smaller, but what hasn't gotten smaller is the clearance requirements. And even though they're more efficient and so forth, we still have the same requirements. So everything has naturally progressed down, you're just in a competitive market where you're wanting to compress even farther. From the service standpoint, we've got to deal with it, going out and working on the boilers, and so many people are compacting everything in there, but they're not necessarily the ones that are going out and working on it. And the guy that goes out and works on it is cussing the guy that designed it, and so forth, just having to try to service it. So I understand the whole footprint and, you know, that footprint is money and you want to put in as many BTUs in this small amount of space as possible. But there again, you've got to take a conscientious approach to it of understanding that there's both service, maintenance, and inspection that has to be accomplished. MR. SCAFE: And to that point, there is an industry-required clearance for service, which is 24 inches. MR. BAUGHMAN: Twenty-four inches. On the front. Correct. Off the front of the unit. That is in our manuals. And it's in most, if not all, of our competitor's manuals, as well. We require that just on the front. MR. PISCHKE: If we understand what the end need is, the end requirement for servicing, shouldn't our rules address that, address those needs for servicing and for, you know, looking at nameplates and not necessarily just have a blanket number? You know. I don't know if you understand what I'm trying to communicate. But instead of just having a blanket number, everything has to be 18 inches, which some of us may not fit into; we have a requirement that things that need to be accessible are always...
1. accessible, and things that are not accessible, or
2. do not need to be accessible, have different, you
3. know, requirements for, you know, thermal
4. consideration or whatever it is.
5. I'm just posing that as a question as
6. a point of discussion. Could our rules be a
7. little more -- a little more finesse instead of
8. brute force? Just throwing that out there.
9. MR. BAILEY: The only caveat, I'd
10. say, on that is that at least it's subject to
11. interpretation as to what is enough clearance. You
12. know.
13. MR. PISCHKE: Well, I was thinking
14. more of directing it rather than clearance, other
15. than the temperature issue. But the end
16. requirement, we must see -- be able to, you know,
17. read the nameplate. We must be able to service
18. certain things. We must -- you know, there is
19. absolutes that we can --
20. MR. BAILEY: Right.
21. MR. PISCHKE: -- specify without
22. having a, you know, broad -- I'm just wondering.
23. MR. SILER: Yeah. Could something be
24. put into the code that says there must be a certain
25. X distance for serviceability? I mean, because

---

1. wondering are we keeping up with the technology
2. and --
3. MR. BAILEY: Probably not. It's hard
4. to keep up with.
5. MR. PISCHKE: It is hard to keep up.
6. MR. HOLT: I think what we have is a
7. good mixture, because if you get it to where you
8. drop it down for some reason, that applies to all
9. boilers and all water heaters no matter what
10. configuration they are from 299 down to 100,000.
11. That means stand water heaters, whatever, and you
12. start getting them closer, they can't be inspected
13. because we can't get our bodies through there to
14. inspect them. We're talking about --
15. MR. CHAPMAN: Yeah.
16. MR. PISCHKE: Sure.
17. MR. HOLT: -- one type, which is a,
18. you know --
19. MR. PISCHKE: Yeah.
20. MR. HOLT: -- a tankless and then now
21. that's got to apply to the stand types, that's got
22. to apply to the boilers, and they're going to start
23. cramming them in the corner. We can't inspect them.
24. MR. PISCHKE: I'm not so sure that we
25. can't -- to your point, Dan, about revising the

---

1. we've heard stories that we have tankless units and
2. there's a riser pipe that goes beside one of the
3. units that say, well, you've got to have 18 inches
4. over to that riser pipe, and they're -- they have to
5. move the whole system down. I mean, what that riser
6. pipe didn't -- I mean, not posing any serviceability
7. issues. You still can take the front cover off.
8. You still could take the whole unit off. If I can
9. get to everything, I can still read everything on
10. the side of it.
11. MR. PISCHKE: Any other comments,
12. questions?
13. MR. BAILEY: Well, I mean, as to your
14. comment, yeah, I mean, you could -- as the Board,
15. y'all can revise the rules, you know, however you
16. see fit. Of course, you know that's a process.
17. MR. PISCHKE: Yeah.
18. MR. BAILEY: And we just, you know
19. went through it not too long ago. But I mean, if
20. that's an area that, as a Board, you think there
21. needs to be some, you know, flexibility -- some
22. areas there's no flexibility, some areas there's
23. some flexibility. Yeah. You can do that through
24. rulemaking for sure.
25. MR. PISCHKE: Yeah. I'm just

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1. rules, that we could not revise them in such a way
2. that we're specific about certain types. You know.
3. Instead of having one requirement for all different
4. types, we become more specific. You know. To meet
5. the requirements of serviceability and inspection.
6. I mean, that's the goal, right? That's -- the goal
7. is to ensure --
8. MR. CHAPMAN: Safety.
9. MR. PISCHKE: -- serviceability and
10. inspection.
11. MR. CHAPMAN: Excuse me.
12. MR. SILER: Is there --
13. MR. PISCHKE: And -- yeah.
14. MR. SILER: When I hear the reference
15. of inspection, is there somewhere that we can see
16. what -- is there, like, a checklist of what an
17. inspector goes out -- when he looks at one, what
18. does he look for and look at? Is that in the --
19. specifically in the code or how is that -- if an
20. inspector goes out to a job to look at six tankless
21. water heaters, what is he inspecting? Just trying
22. to understand that.
23. MR. CHAPMAN: Well, first, he starts
24. out with the clearance.
25. MR. SILER: Okay.
1. MR. CHAPMAN: I'll tell you that much. Then he goes through and he checks on different criteria, like safety valves. Okay?
2. Serial -- does it have a temperature gauge on it?
3. You know. As far as A, B, C, D, no, there's nothing.
4. MR. SILER: Okay.
5. MR. CHAPMAN: Because one person might start at the top and work down. One might start at the bottom and go up. It's -- they still have the end product as inspecting the whole unit, not just parts of it all, little checklists.
6. MR. SILER: So there's not a checklist.
7. MR. CHAPMAN: No.
8. MR. SILER: Okay.
9. MR. HOLT: There's a report that we have that --
10. MR. PISCHKE: It's a report.
11. MR. CHAPMAN: It's a report.
13. MR. CHAPMAN: But it's not a checklist.
14. MR. SILER: Well, but there's -- so there's a defined --
15. MR. PISCHKE: Criteria.
16. MR. SILER: -- yeah, criteria.
17. That's what I --
18. MR. CHAPMAN: On the report.
21. MR. BOWERS: And on the initial inspection, which the State does, they have to get that data off that -- on that plate.
22. MR. SCAFÉ: Yeah.
23. MR. SILER: Right.
24. MR. BOWERS: And if you've got those heaters next to each other, there's no way the State inspectors are going to be able to get that information out.
25. MR. SILER: Right.
26. MR. SCAFÉ: And we as a manufacturer -- even as an industry. I can safely speak for the industry, that we can make provisions to accommodate accessibility off that rating plate.
27. We can.
28. MR. BOWERS: And maybe that needs to be in the discussion there is that the -- on the instantaneous hot water heaters, look at -- the clearance has to do with the inspector. You can get

1. what should the language say?
2. MR. PISCHKE: Criteria.
3. MR. SILER: -- yeah, criteria.
4. That's what I --
5. MR. CHAPMAN: On the report.
8. MR. BOWERS: And on the initial inspection, which the State does, they have to get that data off that -- on that plate.
9. MR. SCAFÉ: Yeah.
10. MR. SILER: Right.
11. MR. BOWERS: And if you've got those heaters next to each other, there's no way the State inspectors are going to be able to get that information out.
12. MR. SILER: Right.
13. MR. SCAFÉ: And we as a manufacturer -- even as an industry. I can safely speak for the industry, that we can make provisions to accommodate accessibility off that rating plate.
14. We can.
15. MR. BOWERS: And maybe that needs to be in the discussion there is that the -- on the instantaneous hot water heaters, look at -- the clearance has to do with the inspector. You can get
2. MR. PETERS: I have a question.
3. Danny Peters. If we're the only state that's
4. inspecting instantaneous water heaters, how do the
5. other states inspect them?
6. MR. SILER: How do they inspect --
7. MR. HOLT: When they can't see the
8. information.
9. MR. PETERS: Yeah. You made the
10. question of the other -- this state's the only state
11. in the union that inspects for clearance. How do
12. the other states inspect water heaters?
13. MR. SILER: Well, they're not -- to
14. my knowledge, when the product is installed, the
15. contractor collects all the serial numbers for each
16. model and that information is submitted to the code
17. bodies within the local jurisdiction. It's also
18. submitted to us, as well.
19. We also do rack systems. So, you
20. know, there's a dedicated skew for a rack system
21. and all the associated serial numbers to that rack
22. system is also supplied with the rack for
23. inspection, if you will. If that's the
24. information -- sort of information you need to
25. inspect the serial numbers.

1. From a safety standpoint, they're
2. usually doing the normal checks, if you will.
3. Checking temperature and pressure, and in some
4. cases, full gas temperatures, et cetera. But
5. there is no inspection between each water heater,
6. if you will. It's looked at from a system
7. standpoint, if you will, and not so much
8. individually.
9. MR. SILER: I think also --
10. MR. PETERS: So if you had four
11. units, you'd look at the system of four units. On a
12. rack -- you call it a rack system?
13. MR. SCAFÉ: Yes. A rack system. One
14. out of --
15. MR. SILER: I think, also, the
16. point -- I think Rohan was -- that bullet was trying
17. to make, is we don't see the additional distance
18. clearance between the units anywhere else but here.
19. That's that additional 18 inches. Typically, what
20. we see is, the clearances, the combustibles that we
21. put on the rating plate are in the installation
22. manual. That's what people will go. They don't add
23. additional to that.
24. MR. SCAFÉ: There's a two-inch
25. clearance in between the water heaters we require

1. for non-combustibles and a half-inch -- excuse me.
2. A two-inch to combustibles and a half-inch to
3. non-combustibles. And in most installations it's
4. beyond that. Even with our rack system, it's beyond
5. what those clearances are.
6. MR. HOLT: May I say something. You
7. say that they -- the contractor collects the
8. information and sends it in on those other states?
9. MR. SCAFÉ: Yes. The contractor --
10. MR. HOLT: But we need --
11. MR. SCAFÉ: I'm sorry. Go ahead,
12. man. Let me let you finish.
13. MR. HOLT: When we inspect, we are
14. the ones that have to physically look at that
15. information and put it down and sign our name to
16. that report as being accurate and complete. We
17. can't rely on somebody else to do that. So it's --
18. that's just the way that is.
19. And there's another thing, too. You
20. hang your Rinnais on a tank, also. That new
21. design. If you were to go with the spaces down to
22. where he says there, then that means, if someone
23. puts four of those in to where the tankless is
24. hanging on a tank, that means that those tanks can
25. butt right together, then, right? That means we

1. can't inspect the tanks, if that were true. The
2. clearances. So the tanks would be butted together
3. or would the tanks still be 18 inches, which it's
4. supposed to be? See, one's hanging on the wall,
5. one's hanging on a tank. So therefore, if it's on
6. a tank, you're saying you could just put the tanks
7. together with no clearance, correct?
8. MR. SILER: So is the requirement for
9. that -- yeah.
10. MR. HOLT: It's 18 inches.
11. MR. SILER: You have to have 18
12. inches --
13. MR. HOLT: Yeah.
14. MR. SILER: -- between the vessels,
15. not the tankless.
16. MR. HOLT: Yeah. I ran into four of
17. those they put in and the tanks themselves that the
18. Rinnai -- that are hanging on, they all have to have
19. 18 inches around them. So all those tanks have to
20. be 18 inches.
21. MR. SCAFÉ: I would agree. In that
22. sense, it makes a little bit of sense, because
23. you've got to be able to walk around the tank --
24. MR. HOLT: Yeah.
25. MR. SCAFÉ: -- to inspect it, right?
1. I do get that. If you're below 18 inches, there's a good chance you can't get in between, right?

3. MR. HOLT: It's like, there's a tank -- the heater, not the --

5. MR. SCAFE: Right. What we're speaking to today is the tankless water heater.

7. MR. HOLT: Yeah.

8. MR. SCAFE: You know. On a wall or on a rack, free-standing.

10. MR. HOLT: My point is that a tankless is hanging on a tank, so if you want to get it changed to where the tankless clearances are closer, then if they're on a tank and it's one unit, you're saying that -- then someone would assume that they could take the tanks with no clearance and put them together, because there's a tankless hanging on the tank.

18. MR. SCAFE: No. That's not what we're saying but --

20. MR. HOLT: No. I know. But I'm saying what contractors would do --

22. MR. SCAFE: I understand. I understand.

24. MR. HOLT: And it's just confusing.

1. MR. PISCHKE: Any laws or rules regarding that would have to be very specific.

3. MR. SCAFE: Yes.

5. MR. PISCHKE: I guess that's the point.

7. MR. HOLT: I'm just bringing up --


9. It's --

10. MR. HOLT: -- that's what contractors will do.

12. MR. BAILEY: If you know of any state rules that you think are compatible to the tankless system that would be --

15. MR. PISCHKE: Yeah. That's good.

16. MR. BAILEY: -- like, model rules that you --

18. MR. BAUGHMAN: Bring to the table.

19. MR. BAILEY: -- would like for us to consider, certainly, bring them to us or get them to Sam or something before the next meeting.

22. Something -- that way -- you know, if we know another state is doing it this way, just, you know, we can, you know, study it and look at it and decide.
1. exact clearance on the sides?
2. MR. ROBINSON: Yeah.
3. MR. SILER: I don't have it -- that
4. memorized right now. Do you recall what the --
5. MR. SCAFÉ: I don't. No, I don't --
6. MR. SILER: I don't -- I can't -- I'd
7. have to go back and look at what that is.
8. MR. PETERS: Can we also enter into
9. the interim of some states have different codes,
10. just like Tennessee, and on some of the water
11. heaters, they'll have that code for that state. For
12. instance, New York, it may have a code for clearance
13. in New York. Can we try to get Rinnai, in their
14. manual or specs, have our code in the State of
15. Tennessee, that this would be the requirement in the
16. State of Tennessee?
17. MR. SCAFÉ: I believe -- and you can
18. keep me honest here, Jason. I believe we can make
19. provisions to accommodate --
20. MR. SILER: Well, we --
21. MR. SCAFÉ: -- that request.
22. MR. SILER: Well yeah, there is some
23. specific --
24. MR. SCAFÉ: We've done it in
25. Massachusetts.

1. Tennessee or the 100,000 BTU as a cutoff. Then it'd
2. be simplified on the specifications.
3. And we have it in our rulebook, but a
4. lot of times, the contractors will tell you, man,
5. I never heard of that before. And I think it
6. would simplify, especially on a contractor's end.
7. They're looking at the space, yes, because of the
8. money side of the space. Every square foot is a
9. dollar, and they'll just have to look at it and
10. determine how much more money it's going to cost
11. over here, but it's going to simplify the codes
12. and the requirements of the State of Tennessee.
13. There is a big issue with the
14. confined space with water heaters. It's pretty
15. bad across the state. Not so much that you think
16. we try to control it, but we do the best we can.
17. MR. SCAFÉ: I understand.
18. MR. PISCHKE: At this time, due to
19. time, I'm going to cut off the discussion, and we'll
20. pick it back up in December. We'll put it on the
21. agenda as a discussion item. And hopefully, we'll
22. have the full group here, as well, to discuss that.
23. I thank you, gentlemen, for, you
24. know, presenting this, and we'll give it a due
25. consideration for sure.

1. MR. SILER: Yeah. Massachusetts,
2. there's --
3. THE REPORTER: Don't speak over each
4. other, please.
5. MR. SCAFÉ: Sorry.
6. MR. SILER: Yeah. So in
7. Massachusetts, there's a diagram that we're required
8. to put in there for heating applications. We do --
9. in combination domestic water heating, heating
10. applications we're required to put that in there.
11. But we do put statements in there. I
12. mean, that doesn't state specific, but it says,
13. you must follow local and state codes. So we --
14. you know, we -- because we don't know all those
15. and they can change county to county, city to
16. city, and state to state.
17. MR. PETERS: But it would simplify a
18. lot of the problems that we see, especially when it
19. comes off the drawing board and when it deals with
20. the contractor. Then we go out and look at it. And
21. if it was simplified in that manual for the State of
22. Tennessee requires 18 inches, then that architect's
23. going to look at it, then that contractor's going to
24. look at it, and we won't have a lot of these
25. discussions about clearance issue in the State of
1. I've been associated or have worked on boilers for
2. the past 35 years, everything from doing refractory
3. work to actual tube work to construction to welding
4. repairs, R-1 repairs. In the past, I've moved on
5. and done mainly control work. And did a lot of
6. control work. I worked a lot with these boiler
7. companies that introduced the Hawk-type system or
8. the Cleaver-Brooks with the Hawk system for some of
9. these variances that are being approved. And I just
10. saw some things in this field that I thought needed
11. to be addressed and changed and I was wanting to
12. bring my expertise to the Board and try to help out.

   MR. PISCHKE: Thank you.

   MR. FOX: That's why I'm here. Thank
you.

13. MR. CHAPMAN: Thank you.

14. MR. PISCHKE: Harold?

15. MR. BOWERS: My name is Harold
Bowers. I live in Centerville, Tennessee. I've
been in this industry probably -- about like Terry,
35 to 40 years. I was the plant engineer at the
same plant in Clarksville for 23 years. I've been
with FM Global for 17 years. And this industry has
been really good to me, and I just wanted to serve
to kind of pay back to this industry that's been
really good for me. So -- and I really appreciate
the appointment to the Board.

   MR. PISCHKE: Thank you.

   MR. CHAPMAN: Thank you.

   (Applause.)

   MR. PISCHKE: With that, I will -- if
there's no other items or issues, I will call for
the adjournment.

   MS. BENNETT: And the next meeting.

   MR. PISCHKE: Oh, I'm sorry. Thank
you. The next meeting will be December 13th at
9:00 o'clock in --

   MS. BENNETT: I'm not sure what room
yet.

   MR. PISCHKE: I was just going to ask
that. Do we know which room yet?

   MS. BENNETT: Not yet.

   MR. PISCHKE: But it's either this
room or the other room. The --

   MS. BENNETT: Yeah. It'll be on the
next agenda.

   MR. PISCHKE: Yeah. Okay. And I
want to thank everybody for helping me out in
Brian's absence. You know.

   MR. BAILEY: You did a good job.

   MR. ROBINSON: You did good.

   MS. BENNETT: You did a really good
job.

   (Applause.)

   MR. PISCHKE: I don't know about
that, but we made it through. That's all -- thank
you.

   So I move to adjourn.

   END OF PROCEEDINGS.

   C E R T I F I C A T E

   STATE OF TENNESSEE

   COUNTY OF WILLIAMSON

   I, Dominique A. Dubois LCR# 686, Notary
Public and Court Reporter, do hereby certify that I
have recorded to the best of my skill and ability
by machine shorthand all the proceedings in the
foregoing transcript, and that said transcript is a
true, accurate, and complete transcript to the best
of my ability.

   I further certify that I am not an attorney
or counsel of any of the parties, nor a relative or
employee of any attorney or counsel connected with
the action, nor financially interested in the
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   SIGNED this 8th day of November 2017.

   ___________________________________
   Dominique A. Dubois, LCR# 686
   Notary Public State at Large
   My commission expires: 4/9/2018

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820 18:25
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