

FOR THE CASE OF
Board of Boiler Rules Meeting

TRANSCRIPT OF
Quarterly Meeting

December 13, 2017

Stone & George

COURT REPORTING

2020 Fieldstone Pkwy

Suite 900 - PMB 234

Franklin, TN 37069

(615) 268-1244

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or send an email to nangeorge@stoneandgeorge.com

1. STATE OF TENNESSEE
 DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
 2. BOILER UNIT DIVISION
 3.
 4.
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 6.
 7.

8. TRANSCRIPT OF PROCEEDINGS
 9. OF
 10. BOARD OF BOILER RULES
 11. December 13, 2017
 12. BEFORE: Brian Morelock, Chairman
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23. -----
 DOMINIQUE A. DUBOIS, LCR# 686
 STONE & GEORGE COURT REPORTING
 24. 2020 Fieldstone Parkway
 Suite 900 - PMB 234
 25. Franklin, Tennessee 37069
 (615) 221-1089

1. APPEARANCES

- 2.
- 3. Brian Morelock, Chairman
- 4. Michael Jay Pischke, Board Member, Boiler
Manufacturer Representative
- 5.
- 6. Dr. S. Keith Hargrove, Board Member, Mechanical
Engineer Representative
- 7. David Baughman, Board Member, Owner/User
Representative
- 8.
- 9. Terry Fox, Board Member, Boiler Maker
Representative
- 10. Harold Bowers, Board Member, Insurance
Representative
- 11.
- 12. Sam Chapman, Chief Boiler Inspector
- 13.
- 14. Eugene Robinson, Assistant Chief Boiler Inspector
- 15.
- 16. Kim Jefferson, Esq., Assistant Administrator
- 17.
- 18. Dan Bailey, Esq., Legal Counsel
- 19.
- 20. Deborah Rhone, Department of Labor & Workforce
Development
- 21.
- 22. Heather Brown, Department of Labor & Workforce
Development
- 23.
- 24. Jeremy Gross, Valero Memphis Refinery
- 25.
- 26. Richard Eng, Wacker Chemical
- 27.
- 28. James Neville, Neville Engineering
- 29.
- 30. Chris Hays, BASF
- 31.
- 32. Brittany Davis, BASF
- 33.
- 34. Carlos Santos, Foxboro Schneider Electric
- 35.
- 36. Larry Butler, West Tennessee Healthcare
- 37.
- 38. Mark Jones, West Tennessee Healthcare

1. The above-styled cause came on for
 2. hearing on this the 13th day of December, 2017,
 3. before the Board of Boiler Rules of Tennessee
 4. Department of Labor and Workforce Development, at
 5. 220 French Landing Drive, TOSHA Hearing Room, 1st
 6. Floor, Nashville, Tennessee, when and where the
 7. following proceedings were had, to wit:
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23. ** Reporter's Note: All names are spelled
 24. phonetically unless otherwise provided to the
 Reporter by the parties.
 25.

- 1. Chip Eskridge, Dow Chemical
- 2. Wes Byrd, Dow Chemical
- 3. Brian Pauley, Dow Chemical
- 4. Laval Choiniere, Kayser-Roth Corporation.
- 5. Kevin Ormanoski, Nucor Steel Memphis
- 6. Michael Haney, LaFollette Medical Center
- 7. Jason Anderson, LaFollette Medical Center
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1. AGENDA
2. I. Call Meeting to Order
3. II. Introductions and Announcements
4. III. Adoption of the Agenda
5. IV. Approval of the September 20, 2017 Meeting Minutes
- 6.
7. V. Chief Boiler Inspector's Report
8. VI. Assistant Chief Boiler Inspector's Report
9. VII. Old Business
10. * 17-06
11. * 17-11
12. * 17-15
13. * 17-16
14. VIII. New Business
15. * 17-17
16. * 17-18
17. * 17-19
18. IX. Open Discussion Items
19. * Status of the 2018 Tennessee Boiler Safety Conference
20. * Update on administering the National Board Commission Exam
21. * Dow Chemical - State Special
22. X. Rule Cases and Interpretations
- 23.
24. XI. The next Board of Boiler Rules Meeting is scheduled for 9:00 a.m. (CST), Wednesday, March 14, 2018, at the Department of Labor & Workforce Development Office Building located at 220 French Landing
- 25.

1. Drive, Nashville, Tennessee.
2. XII. Adjournment
- 3.
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1. PROCEEDINGS
2. CHAIRMAN MORELOCK: Good morning,
3. everybody. I'd like to welcome you to the December
4. quarterly meeting of the Tennessee Board of Boiler
5. Rules. There are agendas on the back table, if
6. you've not already received one of those. There are
7. snacks in the back of the room, so feel free to make
8. yourself at home.
9. I'm calling this meeting to order,
10. and so the first order is introductions and
11. announcements. So we'll start with our court
12. reporter.
13. THE REPORTER: Dominique Dubois,
14. Stone & George Court Reporting.
15. MR. ROBINSON: Eugene Robinson,
16. Assistant Chief Boiler Inspector.
17. MR. CHAPMAN: Sam Chapman, Chief
18. Boiler Inspector.
19. MR. FOX: Terry Fox, Board member.
20. MR. PISCHKE: Mike Pischke, Board
21. member.
22. CHAIRMAN MORELOCK: Brian Morelock,
23. Board member.
24. MR. HARGROVE: Good morning.
25. Keith Hargrove, Board member.

1. MR. BAUGHMAN: Good morning.
2. Dave Baughman, Board member.
3. MR. BOWERS: Good morning.
4. Harold Bowers, Board member.
5. MS. JEFFERSON: Kim Jefferson,
6. Assistant Commissioner.
7. MR. BAILEY: Dan Bailey, legal
8. counsel.
9. MR. GROSS: Jeremy Gross. I'm from
10. the Valero Memphis Refinery.
11. MR. ENG: Richard Eng, Wacker
12. Chemical.
13. MR. ESKRIDGE: I'm Chip Eskridge,
14. here representing Dow Chemical.
15. MR. BYRD: Good morning. My name's
16. Wes Byrd, and I'm with Dow Chemical Company.
17. MR. PAULEY: Hi. I'm Brian Pauley,
18. Dow Chemical.
19. MR. HANEY: Michael Haney with
20. Facility Diagnostics here with LaFollette Medical
21. Center.
22. MR. ANDERSON: Jason Anderson
23. representing LaFollette Medical Center.
24. MS. RHONE: Deborah Rhone, Boiler
25. Office Supervisor.

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1. MR. SANTOS: Good morning.
2. Carlos Santos, Foxboro Schneider Electric here to
3. help with BASF, Amnicola.
4. MS. DAVIS: Brittany Davis, BASF.
5. MR. HAYS: Chris Hays, BASF.
6. MS. BROWN: Heather Brown, Department
7. of Labor, Commissioner's Office.
8. MR. ORMANOSKI: Kevin Ormanoski,
9. Nucor Steel, Memphis.
10. MR. CHOINIÈRE: Laval Choiniere,
11. Kayser-Roth Corporation.
12. MR. NEVILLE: James Neville, Neville
13. Engineering.
14. CHAIRMAN MORELOCK: Okay. Again,
15. welcome and thank you for your attendance today.
16. I'll begin the meeting with a short
17. safety item. In the event there's an emergency or
18. a natural disaster, we'll have security personnel
19. that will escort us to a safe place in the
20. building, or if need be, to evacuate, we would
21. evacuate the building to the Rosa Parks side of
22. the building. So I just want to make you aware of
23. that.
24. For our presenters and visitors, this
25. is an open meeting. You're certainly welcome to

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1. participate in the discussion if you have
2. questions or comments. Also, I would request from
3. you, as a courtesy to the meeting, if -- please
4. put your cell phones on vibrate or silent during
5. this meeting.
6. And I do want to say that -- I want
7. to welcome our new board members, Mr. Fox and
8. Mr. Bowers. I was not here at the September
9. meeting, and so it's good to have a fully sitting
10. board, and I want to thank the Department of Labor
11. for helping us accomplish that. So very pleased
12. to have you gentlemen with us today.
13. MR. HARGROVE: Here, here.
14. CHAIRMAN MORELOCK: Are there any
15. other announcements before we move on? Okay.
16. Our next item on the agenda is
17. adoption of the agenda. So are there any new
18. items? Yes?
19. MR. ESKRIDGE: Mr. Chairman,
20. representing Dow Chemical, I'd like to add to the
21. agenda discussion time at the -- maybe at the end of
22. your meeting, discuss the state special.
23. CHAIRMAN MORELOCK: Okay.
24. MR. ESKRIDGE: We have a German
25. vessel that's very unique that we feel like can't be

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1. replaced with an ASME vessel.
2. THE REPORTER: Could you please state
3. your name.
4. MR. ESKRIDGE: It's Chip Eskridge.
5. E-S-K and then ridge, Eskridge.
6. CHAIRMAN MORELOCK: Okay. So we will
7. add that as our -- that's our third discussion item
8. on the agenda.
9. Are there any other additions to the
10. agenda? Okay. Hearing none, do I have a motion
11. to accept the agenda as presented?
12. MR. PISCHKE: So moved.
13. CHAIRMAN MORELOCK: Do I have a
14. second?
15. MR. HARGROVE: Second.
16. CHAIRMAN MORELOCK: Any further
17. discussion? All in favor, say "aye."
18. MR. HARGROVE: Aye.
19. MR. BOWERS: Aye.
20. MR. PISCHKE: Aye.
21. MR. BAUGHMAN: Aye.
22. MR. FOX: Aye.
23. CHAIRMAN MORELOCK: Opposed?
24. Abstentions? Not voting? We have an agenda.
25. Okay. Our next item on the agenda is

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1. approval of the September 20th meeting minutes.
2. Do I have a motion to approve those?
3. MR. PISCHKE: So moved.
4. CHAIRMAN MORELOCK: Do I have a
5. second?
6. MR. BAUGHMAN: Second.
7. CHAIRMAN MORELOCK: Okay. Any
8. discussion about the minutes? Changes? Okay.
9. Hearing none, I'll call the question. All in favor,
10. say, "aye."
11. MR. PISCHKE: Aye.
12. MR. BOWERS: Aye.
13. MR. HARGROVE: Aye.
14. MR. FOX: Aye.
15. MR. BAUGHMAN: Aye.
16. CHAIRMAN MORELOCK: Opposed?
17. Abstentions? Not voting? The minutes are approved.
18. That takes us to Item 7 on the
19. agenda. No, I'm sorry, 6 -- 5.
20. MR. PISCHKE: Five.
21. CHAIRMAN MORELOCK: I'll get there in
22. a minute. I'm just going backwards. Five on the
23. agenda, which is the Chief Inspector's Report.
24. MR. CHAPMAN: All right.
25. CHAIRMAN MORELOCK: So Mr. Chapman?

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1. MR. CHAPMAN: Thanks Chairman.
2. Number of delinquent -- number of inspections for
3. the State inspector is 2,063. Insurance agent is
4. 5,284, giving us a total of 7,347.
5. Delinquent report as of October is
6. 68,977 vessels in the state. State inspectors
7. performed 1,463. Insurance agent delinquent is --
8. performed 583, giving us a total of 2,046.
9. Number of violations found was 11,
10. and we have seven uncorrected. I performed -- I
11. went to the National Board in October to give NBIC
12. training, and we have four new additional
13. commission inspectors (verbatim).
14. CHAIRMAN MORELOCK: Good.
15. MR. BAUGHMAN: Good.
16. MR. HARGROVE: Here, here.
17. MR. CHAPMAN: So we're almost fully
18. staffed as far as State inspectors.
19. CHAIRMAN MORELOCK: That's great.
20. MR. CHAPMAN: And that is the Chief's
21. Report.
22. CHAIRMAN MORELOCK: Okay. Are there
23. any questions or comments about the Chief's report?
24. Yes, Chip?
25. MR. ESKRIDGE: The number of

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1. inspections by the State and by an agency -- was
2. that through -- was that the quarter or was that --
3. MR. CHAPMAN: That's for the quarter.
4. MR. ESKRIDGE: Okay. Good.
5. MR. CHAPMAN: Yes.
6. CHAIRMAN MORELOCK: Any other
7. questions? All right.
8. Moving along to Item 6, Assistant
9. Chief Inspector's Report.
10. MR. ROBINSON: Assistant Chief's
11. Report. To date, we have a know -- 113 known
12. variances, and we have 13 that are requiring
13. follow-up; 46 have been verified and approved; 11
14. require reinspection; 43 no longer required
15. variances or are dormant. This quarter, we
16. completed seven variance audits with four approved
17. and three requiring follow-up.
18. The actual locations are TriStar
19. Skyline. Madison was approved. Mayfield Dairy
20. Farms in Athens -- follow-up was rejected because
21. lab personnel wasn't trained properly.
22. WM Wrigley in Chattanooga was
23. rejected due to monitoring station failure
24. breakdown. Dow Chemical was approved in
25. Knoxville. Nuclear Fuel Services in Erwin was

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1. approved with a follow-up by Jesse Smith, one of
2. our deputy inspectors.
3. UPM Pfizer, Bristol was acceptable.
4. And J.M. Huber in Etowah: On-screen shut-off
5. button was installed instead of a mushroom,
6. rejected (verbatim). That's all.
7. CHAIRMAN MORELOCK: Okay. Any
8. questions about the Assistant Chief's report?
9. MR. BAUGHMAN: That's a good report.
10. CHAIRMAN MORELOCK: Good report.
11. Okay.
12. Now, moving to Item Number 7, we have
13. some old business items that we're going to review
14. today. And just so everybody knows, when your
15. item comes up, we would ask that the
16. representative please come to the table so that
17. your presentation can be heard clearly. And so
18. we'll begin with Item 17-06, LaFollette Medical
19. Center, Tennova Healthcare, requesting a new
20. variance for two boilers. And if you'll introduce
21. yourselves and present your variance.
22. MR. HANEY: So I'm Michael Haney with
23. Facility Diagnostics. The hospital hired me to help
24. them put together the variance manual.
25. MR. ANDERSON: I'm Jason Anderson,

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1. the Director of Plant Operations.
2. MR. BAILEY: Mr. Chairman?
3. CHAIRMAN MORELOCK: Yes.
4. MR. BAUGHMAN: Any conflicts?
5. CHAIRMAN MORELOCK: Are there any
6. conflicts for this particular item? Okay. Hearing
7. none, proceed.
8. MR. BAILEY: I'd also like to remind
9. everybody, this is being transcribed so make sure
10. it's one person talking at a time, and if the
11. other -- if someone's asking you a question, let
12. them ask the question, then answer it. Try not to
13. have interruptions like that. Thank you.
14. CHAIRMAN MORELOCK: Okay.
15. MR. ANDERSON: Did everyone receive
16. the actual variance? The boiler variance manuals?
17. CHAIRMAN MORELOCK: Yes.
18. MR. ANDERSON: I just wanted to make
19. sure, because we had some confusing --
20. MR. ROBINSON: We received several
21. copies.
22. MR. ANDERSON: Yeah. From what I
23. understand, you did. We're very sorry about that.
24. Essentially, we're for a -- we have a 20-minute
25. right now, trying to get to a 4-hour.

1. We have two boilers, 150 psi that are
 2. run at 75 psi. And we have the remote -- the --
 3. sorry, you'll have to bear with me. This is the
 4. first time me doing this (verbatim).
 5. The remote operation panel at our
 6. facility is located in the emergency department of
 7. registration that is staffed 24 hours a day. The
 8. people that work in there are also the people that
 9. monitor the boiler remote monitoring system.
 10. Our security office is also directly
 11. in that same area. So as far as -- they're
 12. trained twice a year. Right now, we do 20-minute
 13. checks. Our boilers -- our two boilers, the
 14. Cleaver-Brooks and the Hurst are blown down once
 15. per shift. Actually, twice a day; once on day
 16. shift, once on evening shift.
 17. So essentially, what takes place if
 18. the remote monitoring alarm goes off is: in -- I
 19. don't know that it has a page number but it should
 20. be a colored page in the manual. I think it's
 21. orange. Upon activation of the alarm, the red
 22. boiler emergency stop button is obviously pressed.
 23. That's what they're trained to. They're to
 24. contact engineering by a hospital paging system.
 25. After one minute, if they are not

1. called back or responded to, they are to call via
 2. the hospital's phone system.
 3. At that point, after one minute, if
 4. no one is to call back, they are to start calling
 5. the people on the list. Obviously, my name is
 6. first, being the director of plant operations. My
 7. maintenance supervisor is second. The assistant
 8. maintenance supervisor is third. Security on call
 9. is fourth, and Sarah Lloyd, who is our COO, is
 10. fifth.
 11. As I said before, security is -- we
 12. have security there and engineering there 24 hours
 13. a day. Now, on a night shift, security and
 14. engineer act as the same person, but they are
 15. within steps of -- from where the actual remote
 16. boiler monitor is. So I don't foresee there being
 17. an issue getting ahold of someone.
 18. I know that when I talked to
 19. Mr. Chapman on the phone, we had issues,
 20. obviously, with my cell phone number not being on
 21. there, which they corrected. But other than that
 22. I don't really have anything else. Any -- I mean,
 23. questions, obviously, but --
 24. CHAIRMAN MORELOCK: Okay. Do I have
 25. a motion to discuss this item?

1. MR. PISCHKE: So moved.
 2. CHAIRMAN MORELOCK: Do I have a
 3. second?
 4. MR. HARGROVE: Second.
 5. CHAIRMAN MORELOCK: Okay. I'll open
 6. the floor now for questions from the board,
 7. comments.
 8. MR. HARGROVE: On behalf of the
 9. board, thank you for being here.
 10. Two quick questions. In terms of the
 11. organizational chart, it indicates that the boiler
 12. monitor reports to a -- the patient access
 13. manager.
 14. MR. ANDERSON: Yes.
 15. MR. HARGROVE: Why is that versus
 16. reporting to you, the DPO?
 17. MR. ANDERSON: The boiler monitor is
 18. essentially the patient access associate who is --
 19. who works in ED registration. That post is manned
 20. 24 hours a day. Even though my security post -- I
 21. have security 24 hours a day, they are not
 22. necessarily always directly in that office.
 23. Patient access associate is, and
 24. that's why the monitor was placed there. That
 25. is -- those employees, that is Donna Carson, who

1. is the patient access manager -- that is their
 2. direct boss, and that's why it was assigned that
 3. way.
 4. MR. HARGROVE: So essentially,
 5. because someone is there 24 hours, that's why the
 6. report --
 7. MR. ANDERSON: Yes. Yes, sir.
 8. MR. HARGROVE: Okay. And I didn't
 9. see the year of Boiler 2. It was a Cleaver-Brooks.
 10. What year was that boiler manufactured?
 11. MR. ANDERSON: What year was the
 12. boiler manufactured?
 13. MR. HANEY: It's not listed.
 14. MR. ANDERSON: It's not listed on
 15. there. I believe that boiler was manufactured in --
 16. let's see, 2002.
 17. CHAIRMAN MORELOCK: You just -- you
 18. need to put that in your manual.
 19. MR. ANDERSON: Okay.
 20. MR. HARGROVE: Absolutely.
 21. CHAIRMAN MORELOCK: Any other
 22. comments?
 23. MR. HARGROVE: No.
 24. CHAIRMAN MORELOCK: Any comments from
 25. the board?

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1. MR. BAUGHMAN: Yes.
2. CHAIRMAN MORELOCK: Okay.
3. MR. BAUGHMAN: It says the control
4. panel -- this is under the orange page, heading of
5. Facilities Diagnostics, and on the third paragraph,
6. it says, the control panel is password protected to
7. protect from unauthorized changes.
8. Who has the password?
9. MR. ANDERSON: Who has the password?
10. Security, myself, and the COO, and then my
11. maintenance supervisor, Tommy Jackson.
12. MR. BAUGHMAN: Okay. So it
13. designates that a -- if the remote station personnel
14. leave their post, a boiler attendant or another
15. trained remote monitor personnel must attend the
16. boilers.
17. MR. ANDERSON: Yes, sir.
18. MR. BAUGHMAN: Or remote monitoring
19. station. Who have we got designated as boiler
20. attendants?
21. MR. ANDERSON: The designated boiler
22. attendant -- when they leave -- I mean, honestly, it
23. depends on what shift you're talking about.
24. MR. BAUGHMAN: Just go --
25. MR. ANDERSON: Well, it's

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1. maintenance, engineering, or security.
2. MR. BAUGHMAN: And are these
3. personnel trained in boiler operations or are they
4. trained to the manual?
5. MR. ANDERSON: Engineering and
6. security are trained to the manual and in boiler
7. operations, because some of my security also serve
8. as engineers. Boiler monitors are trained to the
9. manual.
10. Any time ED -- any time, we'll say,
11. emergency department registration is changed
12. out -- if they hire someone, they are obviously
13. trained to the same thing. If I have a new
14. engineer or new security come in, they are trained
15. to the same thing.
16. Now, I have not had to do that in
17. either one of those departments, because I live --
18. I mean, I'm in a small hospital and people tend to
19. be -- all of my guys have been there for
20. 20-some-odd years. So people tend to work at the
21. same place for a long time. But that is how the
22. policy is written as if someone is new to come in,
23. they are to be trained on that (verbatim).
24. MR. BAUGHMAN: Is there ever a time
25. when there might be a need to have the patient

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1. access associate remote boiler operator, if other
2. personnel aren't available, to where they would be
3. going down to the boiler room themselves?
4. MR. ANDERSON: There should not be.
5. MR. BAUGHMAN: Understand.
6. MR. ANDERSON: Yeah. There should
7. not be. Our boiler room access is restricted,
8. obviously.
9. MR. BAUGHMAN: To?
10. MR. ANDERSON: To security and
11. engineering.
12. MR. BAUGHMAN: What I'm looking at is
13. if there's an issue that comes up within the
14. hospital, some tragic incident where you've got
15. multiple patients coming in and you've got security
16. tied up -- you've got people that are patient access
17. associates, but I take it they're doing registration
18. duties and what have you -- if there's ever a time
19. when there's a possibility that there could be
20. nobody available to go to the boiler room.
21. MR. ANDERSON: The -- from my
22. understanding, what -- our policy and procedure
23. states that it's the -- when the ED registration
24. person that -- the ED registration person is not
25. allowed to leave their desk unless they are relieved

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1. by someone else. The only person that relieves them
2. is either another ED registration personnel or a
3. security officer. And at that time, obviously, we
4. do not do patient registration when security is
5. there. It is simply someone manning that position.
6. MR. BAUGHMAN: Are you in charge of
7. training the personnel?
8. MR. ANDERSON: Yes. And we also
9. bring a separate company in to do boiler training
10. for my engineers, and they also will be the same
11. people that do the boiler variance training.
12. MR. BAUGHMAN: Okay. And what
13. company is that?
14. MR. ANDERSON: That is a -- Knoxville
15. Boiler Equipment Company.
16. MR. BAUGHMAN: Knoxville Boiler
17. Equipment --
18. MR. ANDERSON: Yes. A boiler
19. equipment --
20. MR. BAUGHMAN: Boiler equipment in
21. Knoxville.
22. MR. ANDERSON: -- company in
23. Knoxville.
24. MR. BAUGHMAN: Got you. Okay.
25. MR. ANDERSON: Richie Kiesling.

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1. CHAIRMAN MORELOCK: Any other
2. comments? Yes, Mr. Pischke?
3. MR. PISCHKE: I was just going to
4. build on the one point that you were talking about.
5. When they leave their post, if they
6. need to leave their post, the procedure on making
7. sure that somebody is there. I mean, is this a
8. written procedure that they're trained on and
9. certified to, or is this --
10. MR. ANDERSON: It's a written policy
11. that they sign.
12. MR. PISCHKE: Okay. Okay.
13. MR. ANDERSON: It's a written policy
14. that they sign, and we go through the policies
15. roughly every six months.
16. MR. PISCHKE: Okay.
17. MR. ANDERSON: And it's also
18. something, kind of, that -- I won't say written, but
19. that we check on as far as -- I kind of do spot
20. checks of seeing when people are in there.
21. Because I mean, obviously -- we have
22. other alarm systems in there also.
23. MR. PISCHKE: Okay.
24. MR. ANDERSON: So we have to make
25. sure -- that's essentially where everything to that

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1. effect is put, is because it is manned 24 hours a
2. day and there's always someone in there, regardless
3. if they are registering patients or not.
4. Even if it's just a body of security
5. sitting in there, there's always someone in that
6. room.
7. MR. PISCHKE: Okay. Thank you.
8. MR. BOWERS: Chairman?
9. CHAIRMAN MORELOCK: Yes, Mr. Bowers?
10. MR. BOWERS: The -- you talked about
11. the security personnel. Are they your people or are
12. they contract?
13. MR. ANDERSON: They're my people.
14. MR. BOWERS: Okay. So -- and you
15. keep documentation of the training -- all the --
16. MR. ANDERSON: Yes, sir.
17. MR. BOWERS: -- training. Okay.
18. CHAIRMAN MORELOCK: Any other
19. questions? Yes.
20. MR. BAUGHMAN: You say you keep
21. documentation of the training. I don't see a
22. training log, or maybe I'm missing it. I see
23. training boiler monitor log under Appendix C, but
24. maybe I'm missing it. So under the Table of
25. Contents, Appendices.

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1. MR. PISCHKE: Right here.
2. CHAIRMAN MORELOCK: It's right here.
3. MR. BAUGHMAN: Is it? Oh, got it.
4. Just went right over it. Thank you.
5. MR. ROBINSON: Appendix C.
6. CHAIRMAN MORELOCK: Yeah. Any other
7. comments? I've just got a few. On Page 5, for your
8. emergency procedure, I would just ask that for --
9. it's the fifth paragraph. It's a single sentence,
10. but it says, "If the remote station personnel leave
11. their post, a boiler attendant or another trained
12. remote monitor personnel must attend the boiler or a
13. remote monitoring station."
14. After "must attend the boiler," I
15. would ask that you add per 0800-03-03-.08(11),
16. parenthetical 11, which is the 20-minute rule.
17. MR. ANDERSON: Okay.
18. CHAIRMAN MORELOCK: On Page 4, right
19. next door, you talk about the patient access
20. associate/remote monitor.
21. So that -- those six items is the
22. complete job description for that patient access
23. associate; is that correct?
24. MR. ANDERSON: Yes, sir.
25. CHAIRMAN MORELOCK: Okay. A lot of

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1. times we'll see those job descriptions in an
2. appendix. That's why I'm asking.
3. In Appendix E, your organizational
4. chart -- I do not find -- I do not find any
5. information for the boiler attendants on your
6. organizational chart, unless I'm overlooking it.
7. I see the remote boiler monitors, but
8. where are the boiler attendants?
9. MR. HANEY: They're under you.
10. MR. ANDERSON: So -- yeah. I see
11. what you're saying. Yeah. They were not included.
12. The only thing they included was obviously,
13. Sarah Lloyd and myself.
14. CHAIRMAN MORELOCK: Right. But
15. you're --
16. MR. ANDERSON: So if you want us --
17. CHAIRMAN MORELOCK: But whoever's
18. going to attend that boiler, we need them --
19. MR. ANDERSON: Okay.
20. CHAIRMAN MORELOCK: -- on the
21. organizational chart.
22. MR. ANDERSON: Okay.
23. MR. HANEY: Okay.
24. CHAIRMAN MORELOCK: And one thing I
25. always tell companies that are putting these

1. variance manuals together, certainly, you know your
 2. people, you know their titles and all that, but we
 3. don't. So make sure their titles are the same --
 4. MR. ANDERSON: Okay.
 5. CHAIRMAN MORELOCK: -- consistent way
 6. throughout the manual, because a lot of times
 7. they'll change and we don't know if that's a
 8. different person or the same person.
 9. MR. ANDERSON: Okay.
 10. CHAIRMAN MORELOCK: So just bear that
 11. in mind.
 12. MR. ANDERSON: Okay. Thank you.
 13. CHAIRMAN MORELOCK: I don't see a
 14. section in the manual for the boiler attendant
 15. responsibilities, training, and description.
 16. And the maintenance staff that
 17. fulfill that role -- what are their other duties?
 18. Just what you have for the remote monitoring,
 19. you'll also want to have that --
 20. MR. ANDERSON: Okay.
 21. CHAIRMAN MORELOCK: -- for the boiler
 22. operator or boiler attendant, whatever you choose to
 23. call them.
 24. MR. HANEY: So you want their job
 25. description included?

1. CHAIRMAN MORELOCK: Yes. Yes, I do.
 2. Okay.
 3. In Appendix H, one of the things
 4. that'll happen is when you have a site visit from
 5. the State -- is they need a list of fault codes
 6. that they can go and have you actuate to see if
 7. your system really works, because that's why
 8. they're visiting. Is they want to be able to come
 9. and make sure what you're -- what you have
 10. captured on paper in this variance manual is
 11. actually what you're doing in practice.
 12. So they need a list of fault codes,
 13. whether it be low water or whatever it may be,
 14. that they will be able to see you demonstrate that
 15. it will shut the boiler down.
 16. MR. ANDERSON: Yes.
 17. CHAIRMAN MORELOCK: Okay? So you
 18. might want to include that in the appropriate
 19. appendix.
 20. MR. HANEY: And when you mean "fault
 21. codes," you're not talking about computer errors;
 22. you're talking about actually boiler alarms?
 23. CHAIRMAN MORELOCK: Yes.
 24. MR. HANEY: Okay.
 25. CHAIRMAN MORELOCK: Yeah. Because

1. that's just -- like I said, we want to -- I mean,
 2. that's the purpose of testing your system every day,
 3. every shift. Make sure that remote monitoring
 4. station is going to do its job for you.
 5. And I do applaud you for -- inside
 6. the manual, you do have the correct reference to
 7. the 20-minute rule that I just discussed.
 8. Because of our recent rule change,
 9. it's now 11 instead of 22. However, your cover
 10. sheet still has the original rule number, so your
 11. cover page needs to be 0800-03-03-.08(11), as
 12. well.
 13. MR. HANEY: That must have slipped
 14. by. Sorry about that.
 15. CHAIRMAN MORELOCK: Okay. Just for
 16. clarity, and on Page 1, in the third paragraph of
 17. your cover letter, the second sentence states:
 18. "Upon approval, the owner will request an inspection
 19. by the State's local boiler inspector. When the
 20. local inspection is complete and all requirements
 21. are satisfied, the State Board will review again for
 22. approval."
 23. That's not true. You will get a
 24. contingent approval here today, then the site
 25. visit will complete that approval process.

1. So you really don't need that last
 2. part of that sentence. Because we don't want to
 3. impose -- again, this is your manual we're going
 4. to hold you to, so you don't want to have to come
 5. back and see us again.
 6. MR. HANEY: So once the State does
 7. their inspection, will they send a letter --
 8. CHAIRMAN MORELOCK5: Yes.
 9. MR. HANEY: -- saying we're --
 10. CHAIRMAN MORELOCK: Yes.
 11. MR. HANEY: Okay.
 12. CHAIRMAN MORELOCK: Correct?
 13. MR. CHAPMAN: Under the procedure.
 14. CHAIRMAN MORELOCK: Yes. Yes. So I
 15. just want to clarify that. Like I said, update your
 16. organizational chart. For old people like me, it's
 17. a little hard to read. Just saying.
 18. On Page 3, in Appendix A, your plot
 19. plans are nice. It would be nice to know the
 20. distances from the remote station to the boiler.
 21. Because when you say they've got to respond within
 22. a minute or two minutes --
 23. MR. ANDERSON: It's roughly --
 24. CHAIRMAN MORELOCK: Roughly --
 25. MR. ANDERSON: It's roughly 175 feet.

1. CHAIRMAN MORELOCK: Okay. So we want
 2. to make sure that they don't have to be an Olympic
 3. marathon --
 4. MR. ANDERSON: Okay.
 5. CHAIRMAN MORELOCK: -- runner to get
 6. there in that one minute.
 7. Appendix D. Appendix D shows how to
 8. shut down the boiler in an emergency, but it
 9. doesn't tell the remote operator how to help the
 10. boiler attendant restart the boiler once the
 11. emergency's been cleared.
 12. MR. HANEY: I don't think that's
 13. their job, right?
 14. MR. ANDERSON: No. That would not be
 15. the boiler monitor's position to do that.
 16. CHAIRMAN MORELOCK: Well, but they
 17. have to work with the boiler attendant to restart
 18. the boiler, correct?
 19. You're showing them how to shut it
 20. down, which is good, and this is good just for an
 21. emergency procedure, but your emergency procedure
 22. is on Page 5. So you need to help them --
 23. MR. HANEY: Yeah.
 24. CHAIRMAN MORELOCK: -- restart the
 25. boiler after they've cleared the emergency.

1. MR. ANDERSON: Okay.
 2. CHAIRMAN MORELOCK: And I think --
 3. based on the other comments, I think that covers
 4. mine. So that's all I have.
 5. MR. BAUGHMAN: I've got additional.
 6. CHAIRMAN MORELOCK: Okay.
 7. MR. BAUGHMAN: So all of the
 8. annunciation and the alarms go through the Honeywell
 9. annunciator?
 10. MR. HANEY: Yes, sir.
 11. MR. BAUGHMAN: Okay. In reading
 12. through what's hooked up to the annunciator, and
 13. just what's in your manual showing what's hooked up,
 14. you showed things from the standpoint of -- there's
 15. a high water alarm circuit that's connected.
 16. There's modulating circuits; there's displaying the
 17. steam flow, and so forth.
 18. But the low water does not show being
 19. connected through the UDC controller to the Modbus
 20. communications.
 21. And so my question is: In low water,
 22. does it give a separate alarm instead of going
 23. through the Modbus?
 24. MR. ANDERSON: As far as I know it
 25. goes through the Modbus.

1. MR. BAUGHMAN: As far as you know. I
 2. mean, through testing --
 3. MR. ANDERSON: That it -- the low
 4. water -- yes.
 5. MR. BAUGHMAN: -- previously --
 6. MR. ANDERSON: Yes.
 7. MR. BAUGHMAN: -- it does.
 8. MR. ANDERSON: Yes. When -- the
 9. company that installed this, Advance Boiler
 10. Company -- obviously, it's a different company than
 11. who we deal with now.
 12. But when Reid from Advance came and
 13. had this installed, they tested everything and it
 14. came -- to my knowledge, the low water came
 15. through that. There was not -- there wasn't
 16. anything that was separated out or came through as
 17. a different alarm.
 18. MR. BAUGHMAN: Okay.
 19. CHAIRMAN MORELOCK: Well, and that
 20. could be tested.
 21. MR. BAUGHMAN: Yeah.
 22. MR. ANDERSON: Yes. And that can be
 23. tested.
 24. CHAIRMAN MORELOCK: That could be
 25. tested.

1. MR. ANDERSON: And obviously, we
 2. actually -- depending -- they come in at certain
 3. intervals and do testing. So when Richie comes --
 4. Knoxville Boiler comes to check that, then we
 5. obviously can have him test that. And we'll have
 6. him test it, I mean.
 7. MR. BAUGHMAN: Well, and it should be
 8. being tested during your regular operation --
 9. MR. ANDERSON: Operation.
 10. MR. BAUGHMAN: -- on the daily shift
 11. and what have you. We want to do a positive check
 12. to the low-water cutoff. I would ask that during
 13. the inspection of the variance, that that be looked
 14. at.
 15. MR. ANDERSON: Okay.
 16. MR. BAUGHMAN: Because all the
 17. alarms, whatever the boiler goes off on -- no matter
 18. what it is, should annunciate back to the remote
 19. operator station.
 20. One other piece that was just lacking
 21. that's not a requirement, but it's good info to
 22. have, is you show that you have a DA --
 23. MR. ANDERSON: Yes, sir.
 24. MR. BAUGHMAN: -- for a boiler
 25. feedwater system.

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1. MR. ANDERSON: Yes, sir.
2. MR. BAUGHMAN: And there's just no
3. information concerning the DA itself. And the DA,
4. being an integral part of the operation --
5. MR. ANDERSON: Okay.
6. MR. BAUGHMAN: -- I'd like to see
7. that information.
8. MR. ANDERSON: Okay.
9. MR. BAUGHMAN: Not that it's a
10. requirement, but I'd like to see that.
11. MR. HANEY: What -- like, model
12. number, size, feedwater pump, that --
13. MR. BAUGHMAN: Relief valve --
14. MR. ANDERSON: Okay.
15. MR. BAUGHMAN: -- year, national
16. board number, so forth.
17. CHAIRMAN MORELOCK: Any other
18. comments? Okay. Hearing none --
19. MR. BAUGHMAN: Wait. Mr. --
20. CHAIRMAN MORELOCK: Yes.
21. MR. ROBINSON: Just a couple
22. questions.
23. CHAIRMAN MORELOCK: Okay.
24. MR. ROBINSON: Editorial. On Page 3,
25. your introduction. You've got medium pressure

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1. 100-horsepower boilers. They're high pressure.
2. Change that to high pressure.
3. Then on Page 6 -- excuse me, Page 5.
4. And it's going to be Line Items 3, 5, and 6. And
5. for example, number 3, remote boiler monitoring to
6. confirm test alarm signal is produced at the
7. remote monitoring panel.
8. Change those "to's" to "shall,"
9. please (verbatim). You've got nine, three, boiler
10. attendant shall visit the boiler room at least
11. every four hours and then Number 6, the boiler
12. attendant shall -- and take out the word,
13. "note" -- log the remote monitoring test. When
14. you get that, I'll continue.
15. MR. ANDERSON: Okay.
16. MR. ROBINSON: Page 5, your recall
17. list. I had a question. It says to call you first.
18. Wouldn't it be better to call
19. somebody who's on duty? I mean, what if it was at
20. night and you were --
21. MR. ANDERSON: Which -- security on
22. call, too --
23. MR. ROBINSON: It says, "If no
24. response within one minute, begin calling
25. individuals listed on the emergency call list to

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1. notify them that the boilers have been shut down due
2. to the alarm activation.
3. MR. ANDERSON: We could move security
4. on call to above me, because they're there 24 hours
5. a day, so obviously that would make sense.
6. MR. ROBINSON: So you can fix that.
7. MR. ANDERSON: Yes.
8. MR. ROBINSON: On Pages 4 and 5,
9. you've got -- we just want a colored page for the
10. emergency procedure.
11. MR. ANDERSON: Okay.
12. MR. ROBINSON: And --
13. MR. HANEY: Yeah. I think that
14. should have been Appendix D.
15. MR. ANDERSON: That should have been
16. Appendix D. They colored the wrong page.
17. That should have been the remote
18. boiler monitoring procedures that is Appendix D
19. that just shows -- push the red boiler
20. emergency --
21. CHAIRMAN MORELOCK: Yeah.
22. MR. ANDERSON: -- stop button and all
23. that. That should have been --
24. MR. HANEY: That's the sign that's on
25. the wall.

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1. MR. ANDERSON: -- the colored page.
2. CHAIRMAN MORELOCK: Well, and then
3. saying that, my comment can be stricken, because
4. that will be your emergency procedure instead of
5. Page 5.
6. MR. HANEY: Correct. Yes.
7. CHAIRMAN MORELOCK: Okay. That makes
8. perfect sense.
9. MR. HANEY: Appendix D is what's on
10. the wall.
11. CHAIRMAN MORELOCK: Is your emergency
12. procedure.
13. MR. ANDERSON: And that's the colored
14. page --
15. CHAIRMAN MORELOCK: Okay.
16. MR. ANDERSON: -- that's on the wall
17. in registration right now.
18. CHAIRMAN MORELOCK: Okay.
19. MR. ANDERSON: Apparently, they
20. colored the wrong page.
21. MR. ROBINSON: There is a manual at
22. the remote monitoring station, right?
23. MR. ANDERSON: Yes, sir.
24. MR. ROBINSON: Okay. Then a question
25. for you, is the control -- is the shutoff control at

1. the monitoring station on the computer screen or is
 2. it a manual button?
 3. MR. ANDERSON: It is a manual button.
 4. MR. ROBINSON: Great. Thank you.
 5. That's all I have.
 6. CHAIRMAN MORELOCK: Okay. Yes?
 7. MR. BAUGHMAN: Last comment I have
 8. there at the end of Page 5. When the alarm
 9. condition is cleared, the boiler attendant shall
 10. contact the remote station personnel, the shutdown
 11. switch should be reset and the boiler restarted in
 12. the mechanical room by the boiler attendant.
 13. There's no mention of
 14. troubleshooting. There's no mention of finding
 15. out what the condition was. It just says
 16. somebody's going to go down and reset it, and life
 17. is good. And there needs to be some clarification
 18. as to what caused the condition before the reset
 19. is cleared, because otherwise, anybody can just
 20. hit a reset button and get up and get going. So I
 21. don't know how quite to word that.
 22. CHAIRMAN MORELOCK: Well, I mean,
 23. it's not our -- it's not the board's responsibility
 24. to tell you how to operate your boiler. We're going
 25. to tell you to make sure you've cleared the alarm

1. and you've taken care of it, because you have
 2. trained people that know how to do that. So we're
 3. not going to prescribe how to operate their boiler
 4. and their manual.
 5. MR. BAUGHMAN: Okay.
 6. CHAIRMAN MORELOCK: That's not --
 7. that's outside of our responsibility.
 8. MR. BAUGHMAN: I think it would be
 9. good, just from a protocol standpoint, to put it in
 10. your SOP --
 11. CHAIRMAN MORELOCK: Yes.
 12. MR. BAUGHMAN: -- that the condition
 13. be diagnosed before it's actually reset. Thank you,
 14. Brian.
 15. CHAIRMAN MORELOCK: Okay. Any other
 16. questions? Do I have a motion to approve this
 17. manual contingent on changes made to the manual
 18. based on board comments and a successful site visit
 19. from the chief inspector?
 20. MR. BOWERS: Motion to approve.
 21. CHAIRMAN MORELOCK: Okay. I have a
 22. motion. Do I have a second?
 23. MR. PISCHKE: Second.
 24. CHAIRMAN MORELOCK: Any more
 25. questions or comments? Okay. I'll call this to a

1. vote. All in favor, say, "aye."
 2. MR. PISCHKE: Aye.
 3. MR. HARGROVE: Aye.
 4. MR. BAUGHMAN: Aye.
 5. MR. BOWERS: Aye.
 6. MR. FOX: Aye.
 7. CHAIRMAN MORELOCK: Opposed?
 8. Abstentions? Not voting? Gentlemen, you have a
 9. contingently approved variance.
 10. MR. HANEY: Thank you.
 11. MR. ANDERSON: Thank you very much.
 12. CHAIRMAN MORELOCK: Thank you for
 13. your time.
 14. Okay. Our next old business item is
 15. 17-11, Kayser-Roth requesting a new variance for a
 16. new boiler.
 17. Again, if you'll come and introduce
 18. yourselves and present your item.
 19. MR. CHOINIERE: Laval Choiniere with
 20. Kayser-Roth Corporation. I'll spell that.
 21. L-A-V-A-L. The last name is C-H-O-I-N-I-E-R-E.
 22. MR. NEVILLE: And James Neville with
 23. Neville Engineering, representing Kayser-Roth.
 24. CHAIRMAN MORELOCK: Okay. Before you
 25. present -- I remembered -- are there any conflicts?

1. You have -- we have one conflict.
 2. MR. BOWERS: Yes, sir.
 3. CHAIRMAN MORELOCK: Okay. Mr. Bowers
 4. has a conflict. Any others? All right. Proceed.
 5. Okay.
 6. MR. NEVILLE: Kyser-Roth is an
 7. innovative manufacturer of legwear, and they're
 8. located in Dayton, Tennessee. To give you a little
 9. background on this, in 2014, they previously had a
 10. variance for this site on one of their boilers.
 11. They have purchased another boiler and installed it.
 12. And so we're presenting this is as a new variance
 13. for both boilers. It made the most sense to present
 14. it that way.
 15. These boilers are operated 24 hours a
 16. day, five days a week, furnishing high pressure
 17. steam for heating and process. In the site
 18. plan -- it may be best if you turn to Figure 1 on
 19. the site plan on Page 2.
 20. There are two remote stations that
 21. they are operating under. Remote Station 2 is for
 22. the first shift and second shift, and that is
 23. being manned by a dye mixer -- is the job
 24. description for that.
 25. On third shift, they are monitoring

1. it from the knitting supervisor's officer. So
2. that shows -- that's the -- 335 feet away from the
3. boiler room. The dimension on the Remote
4. Station 2 is 27 feet away from it. So there's a
5. pretty small dimension on that showing that --
6. where that's located.
7. The boilers -- we list the boilers in
8. Appendix A. It will be under the variance.
9. Boiler 1 was the boiler that was recently
10. installed that will have the new Hawk 3000
11. controls on the boiler.
12. Boiler 2 will continue to have the
13. Hawk ICS boiler controls that it had previously.
14. Other than that, there were no major changes to
15. the variance from previous.
16. CHAIRMAN MORELOCK: Okay. Do I have
17. a motion to discuss this variance?
18. MR. PISCHKE: So moved.
19. CHAIRMAN MORELOCK: Second?
20. MR. BAUGHMAN: Second.
21. CHAIRMAN MORELOCK: Thank you.
22. Further board comments and questions.
23. MR. BAUGHMAN: I'll start.
24. CHAIRMAN MORELOCK: Okay.
25. MR. BAUGHMAN: James, you mentioned

1. that Boiler Number 1 was the one that was recently
2. installed? Boiler Number 2 was under a 2014
3. previous variance? Or it was Boiler Number 1, the
4. previous boiler (verbatim) --
5. MR. NEVILLE: The -- right. So the
6. Boiler 2 was the -- had previously operated under a
7. variance. Boiler 1 was purchased and installed and
8. controls were upgraded on that boiler.
9. MR. BAUGHMAN: Okay. So Number 1 is
10. the boiler that's just been recently installed?
11. MR. NEVILLE: Correct.
12. MR. BAUGHMAN: Okay. So I take it
13. that's a rebuilt boiler.
14. MR. NEVILLE: That is my
15. understanding, yes.
16. MR. BAUGHMAN: Okay. I see the year
17. of --
18. MR. NEVILLE: Yes, yes.
19. MR. BAUGHMAN: -- 2001. So --
20. MR. NEVILLE: Because it's a 2000 --
21. MR. CHOINIERE: It was -- excuse me.
22. It was a used boiler. The controls were the
23. original controls. It was just, you know, opened
24. up; the insides were all cleaned up and refurbished.
25. Yes. That's it.

1. MR. BAUGHMAN: Okay. So I take it
2. when it got installed, it went through the
3. second-hand papers, installation, and so forth.
4. MR. CHOINIERE: Correct.
5. CHAIRMAN MORELOCK: Any other
6. questions or comments? Yes, sir.
7. MR. BOWERS: Can I comment?
8. CHAIRMAN MORELOCK: Yes.
9. MR. BOWERS: Okay. The number
10. doesn't seem right. You're saying Number 1 Boiler
11. is the new boiler?
12. MR. NEVILLE: New for this variance
13. or for this facility. Correct.
14. MR. BOWERS: The Tennessee Number
15. doesn't jive to that. I mean, it's like
16. T33-something.
17. You see what I'm saying, Sam?
18. MR. CHAPMAN: Yeah, I see.
19. MR. BOWERS: How could that be a
20. newer boiler when it has an old Tennessee number?
21. MR. CHAPMAN: Well, that's -- I don't
22. know. I really don't because --
23. MR. BOWERS: The numbers don't jive
24. with what he's saying.
25. CHAIRMAN MORELOCK: Was the boiler

1. existing in Tennessee --
2. MR. CHOINIERE: No, excuse me --
3. CHAIRMAN MORELOCK: -- in operation
4. in Tennessee, or did it come from another state?
5. MR. CHOINIERE: No, I'm sorry. I'm
6. going to correct this. The 600 was in existence on
7. the first variance --
8. CHAIRMAN MORELOCK: Okay.
9. MR. CHOINIERE: -- which is Number 1.
10. CHAIRMAN MORELOCK: Oh, okay.
11. MR. CHOINIERE: We purchased the 500
12. and installed it recently -- last year.
13. MR. BAUGHMAN: Okay.
14. CHAIRMAN MORELOCK: Okay.
15. MR. CHOINIERE: Okay?
16. MR. ROBINSON: That makes sense.
17. MR. BAUGHMAN: Can I go ahead
18. further?
19. CHAIRMAN MORELOCK: Yes. Go ahead.
20. MR. BAUGHMAN: So Boiler Number 1 is
21. a 600-horse.
22. MR. CHOINIERE: Yes.
23. MR. BAUGHMAN: Boiler Number 2 is a
24. 500-horse.
25. MR. CHOINIERE: That's correct.

1. MR. NEVILLE: That's correct.
 2. MR. BAUGHMAN: But yet, Boiler Number
 3. 1 shows a -- half the input, maximum BTUs than what
 4. Boiler Number 2 does. It does show a higher output,
 5. but it shows a lower input.
 6. So just from a technical standpoint,
 7. some figures aren't quite correct in the
 8. nomenclature on it. So --
 9. CHAIRMAN MORELOCK: So do you just
 10. want to verify your --
 11. MR. NEVILLE: I will verify those
 12. numbers.
 13. CHAIRMAN MORELOCK: -- existing
 14. boiler information?
 15. MR. NEVILLE: Yes.
 16. CHAIRMAN MORELOCK: Okay.
 17. MR. BAUGHMAN: So that being said,
 18. now I'm a little confused on the control system,
 19. because we said the one that has been recently
 20. installed is the 2010, and it has the old Hawk ICS.
 21. Boiler Number 1 has the Hawk 3000.
 22. Is that all correct information or is
 23. it just reversed?
 24. MR. CHOINIERE: That's correct.
 25. That's correct. Now, assuming -- because we

1. installed the Hawk, we retrofitted the first boiler
 2. with a Hawk ICS to get the initial variance. Okay.
 3. And then we had a 60-year-old boiler that failed and
 4. replaced that with the 500-horsepower. And that's
 5. the control system that was on the 500-horsepower.
 6. MR. BAUGHMAN: What failed on that
 7. boiler, by the way?
 8. MR. CHOINIERE: The plate. The tube
 9. plate. It was just old and deteriorated. Every
 10. time you fixed the tube plate or the tubes and fired
 11. it back up, you developed another leak. So we're
 12. chasing the whack-a-mole.
 13. MR. BAUGHMAN: How -- are we doing
 14. monitoring via -- what kind of connection? Are we
 15. doing it via computer? Web-based? What are we --
 16. how are we monitoring --
 17. MR. NEVILLE: It's a hardwired
 18. connection.
 19. MR. BAUGHMAN: Hardwired connection.
 20. Okay. I see the equipment description for the Hawk
 21. 3000 in here.
 22. MR. NEVILLE: Yes.
 23. MR. BAUGHMAN: I do not see the
 24. equipment description for the Hawk ICS.
 25. MR. NEVILLE: On B-2.

1. MR. BAUGHMAN: Well, I see the --
 2. yes, now I see the Hawk ICS. Thank you, James.
 3. MR. NEVILLE: Yes, sir.
 4. MR. BAUGHMAN: So I noticed on the --
 5. MR. HARGROVE: B-2?
 6. CHAIRMAN MORELOCK: It's right here.
 7. MR. BAUGHMAN: B-2. I notice under
 8. Appendix B under the Hawk 3000, one item that comes
 9. to mind that is an issue that I've got personally,
 10. and not that it's a stickler within what we're
 11. doing, but it shows that that control has the
 12. capability of doing a remote setpoint change. And
 13. remote setpoint changes are not a good thing to have
 14. access to. Just as a note, not that it affects what
 15. our variance is doing, but we do have that
 16. capability within this particular control.
 17. MR. NEVILLE: I do not believe
 18. they're using that feature, but --
 19. MR. BAUGHMAN: I understand.
 20. MR. NEVILLE: But I understand it is
 21. a feature.
 22. MR. BAUGHMAN: The concern is if
 23. others outside of the industry decide to use that
 24. feature --
 25. MR. ROBINSON: Dave.

1. MR. BAUGHMAN: Yes, sir.
 2. MR. ROBINSON: Question for you. But
 3. it's still -- let me know if I'm in left field. The
 4. hardwire mandatory manual resets are still going to
 5. lock out as they should and override the system.
 6. MR. BAUGHMAN: As far as I know.
 7. MR. ROBINSON: Is that a correct
 8. statement? The question -- sir, the question is:
 9. Dave -- Mr. Baughman pointed out that you have the
 10. ability to remotely reset the mandatory shutoff
 11. mechanisms for the boiler, such as manual reset,
 12. high limit pressure switch, things like that.
 13. MR. CHOINIERE: No, they're -- I'm
 14. sorry.
 15. MR. BAUGHMAN: No. That's not -- I'm
 16. sorry.
 17. MR. CHOINIERE: It's just the remote
 18. shutdown.
 19. MR. BAUGHMAN: What I was saying,
 20. just to clarify, was it's got the capabilities of
 21. doing a remote setpoint change, not a remote reset.
 22. MR. ROBINSON: Okay. Well, when you
 23. say "setpoint," are you talking --
 24. MR. BAUGHMAN: Steam pressure.
 25. MR. ROBINSON: -- manual reset --

1. MR. BAUGHMAN: Just steam pressure.
 2. A remote setpoint change of the steam pressure
 3. itself.
 4. MR. ROBINSON: So the lockouts are
 5. untouchable?
 6. MR. CHOINIERE: Correct.
 7. MR. ROBINSON: I'm sorry. Thank you.
 8. CHAIRMAN MORELOCK: Okay.
 9. MR. BAUGHMAN: One other question
 10. that I've got -- and thank you for taking the time
 11. again -- is on E-1 under the boiler room itself.
 12. I'm looking at -- I show one door opening in front
 13. of Boiler Number 2. Is that correct? To the
 14. right-hand side?
 15. MR. CHOINIERE: So are you talking
 16. about at the top of the picture or at the bottom of
 17. the picture?
 18. MR. BAUGHMAN: No. I'm talking about
 19. virtually in the middle of the picture --
 20. MR. NEVILLE: Yes.
 21. MR. BAUGHMAN: -- right there where
 22. it says, "eight-inch steam."
 23. MR. CHOINIERE: Oh, okay. That's
 24. good. Okay. So -- right. Yes. That's the manual
 25. access door to the area.

1. MR. BAUGHMAN: Okay. This boiler
 2. room having a 500 and a 600-horsepower boiler --
 3. does it not require two doors, Mr. Chapman or
 4. Mr. Robinson?
 5. Being that this boiler room has a 5
 6. and a 600-horse boiler in it, does it not require
 7. two doors?
 8. MR. CHAPMAN: Yes.
 9. MR. ROBINSON: Yes, sir.
 10. MR. BAUGHMAN: Okay. We're showing
 11. one door in this boiler room, and actually need to
 12. have two doors for egress.
 13. MR. BOWERS: Does a garage door
 14. count?
 15. MR. PISCHKE: Are these garage doors?
 16. MR. NEVILLE: Those are garage doors.
 17. MR. CHOINIERE: Yeah, they're -- yes.
 18. CHAIRMAN MORELOCK: So you -- it's
 19. three doors out of that place.
 20. MR. CHOINIERE: Yes.
 21. MR. BOWERS: These are garage doors
 22. here.
 23. MR. BAUGHMAN: Well, let's say we've
 24. got --
 25. MR. CHAPMAN: Well, they don't really

1. count a garage door --
 2. MR. BAUGHMAN: That's correct.
 3. MR. CHAPMAN: -- or a roll-up door.
 4. MR. BAUGHMAN: Okay.
 5. MR. CHAPMAN: They do not count that,
 6. because that's not a main egress.
 7. MR. BAUGHMAN: So I'm just bringing
 8. that up in as much as the boiler room itself needs
 9. to be addressed from the standpoint of another
 10. manual door needed for a point of egress. And then
 11. there should be an e-stop at each door --
 12. MR. CHAPMAN: Yes.
 13. MR. BAUGHMAN: -- at a point of
 14. egress.
 15. MR. CHAPMAN: Correct.
 16. MR. BAUGHMAN: So when you hit a
 17. manual reset button, does it shut off both boilers?
 18. MR. CHOINIERE: Only one boiler's
 19. operational at a time. But yeah, when you hit the
 20. e-stop, it shuts off either one that's operating.
 21. MR. BAUGHMAN: Let's say just by
 22. chance both boilers happen to be on, you're
 23. warming --
 24. MR. CHOINIERE: Yes.
 25. MR. BAUGHMAN: -- one boiler up --

1. MR. CHOINIERE: It'll stop both
 2. boilers.
 3. MR. BAUGHMAN: It'll stop both
 4. boilers.
 5. MR. CHOINIERE: Yes, sir. Yes.
 6. MR. BAUGHMAN: Okay. Is that
 7. identified in here --
 8. MR. CHOINIERE: I don't know.
 9. MR. BAUGHMAN: -- to where it says it
 10. shuts off both boilers?
 11. MR. NEVILLE: It is not, but we can
 12. add that to the --
 13. MR. BAUGHMAN: Okay. Because when
 14. they check, that's one thing they'll be checking for
 15. is that it shuts both boilers off.
 16. MR. ROBINSON: So don't be confused
 17. with that. The monitoring station --
 18. MR. NEVILLE: Right.
 19. MR. ROBINSON: -- is independent for
 20. each boiler. The monitoring station.
 21. MR. CHOINIERE: Right.
 22. MR. ROBINSON: But at the points of
 23. egress, both boilers are to be shut off.
 24. MR. CHOINIERE: Okay.
 25. MR. CHAPMAN: With one button.

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1. MR. ROBINSON: With one button.
2. MR. CHOINIERE: Okay.
3. MR. ROBINSON: Okay?
4. MR. NEVILLE: What I'd like to do is
5. add that to Appendix B as far as -- the equipment
6. description -- as far as the emergency shutoffs at
7. the exit doors. And do you think -- I assume that's
8. the most appropriate place to put that information.
9. Is that --
10. MR. ROBINSON: I have no argument.
11. MR. NEVILLE: Okay.
12. MR. BAUGHMAN: Yeah.
13. CHAIRMAN MORELOCK: Okay.
14. MR. BAUGHMAN: So who is in charge of
15. training and qualifying the boiler operators?
16. MR. CHOINIERE: The maintenance
17. manager.
18. MR. BAUGHMAN: The maintenance
19. manager.
20. MR. CHOINIERE: Right.
21. MR. BAUGHMAN: And what are his
22. qualifications?
23. MR. CHOINIERE: I don't know. Do
24. they spell it out in this?
25. MR. NEVILLE: Let's see.

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1. MR. CHOINIERE: Is there some
2. certification that you're interested in? I'm not --
3. MR. BAUGHMAN: No. It just says that
4. under the job descriptions, especially under dye
5. mixer, which is under G-9 --
6. MR. NEVILLE: Yes.
7. MR. BAUGHMAN: -- and going to G-10,
8. it says that that dye mixer is trained and qualified
9. in boiler operations, and so the question then
10. comes, who trains them --
11. MR. CHOINIERE: Yeah.
12. MR. BAUGHMAN: -- and what is
13. "qualified"?
14. MR. CHOINIERE: Okay. So we've
15. just -- we have a training procedure that we're
16. using for the remote operators and the boiler
17. monitors, for the attendant and the monitors, and
18. that's -- what we're saying is they're qualified to
19. our training standards, not to any state
20. certification standard. And I'm not really sure
21. what that would be. So --
22. MR. BAUGHMAN: Yeah. What I -- and I
23. was just wanting to know the -- since we're looking
24. under particulars, I'm reading through the --
25. MR. CHOINIERE: Right.

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1. MR. BAUGHMAN: -- job descriptions,
2. and in it, in a number of them, under knitting
3. supervisor, it says the same thing --
4. MR. NEVILLE: Yes.
5. MR. BAUGHMAN: -- trained and
6. qualified in boiler operations.
7. Or is it trained and qualified to the
8. boiler remote variance?
9. MR. NEVILLE: Right. There's -- it
10. should list two different -- so this is G-3, for
11. example, under required education and training.
12. So you have training annually to the
13. systems operation manual, but there's additional
14. training that the facility trains to qualify
15. individuals as a boiler operator that they do
16. internally.
17. MR. BAUGHMAN: Super.
18. MR. NEVILLE: So you know, there's
19. two levels there. So --
20. MR. BAUGHMAN: Okay. Thank you.
21. CHAIRMAN MORELOCK: Okay. Yes?
22. MR. HARGROVE: As a follow-up, with
23. regard to the remote access for the setpoint, what
24. individuals have security access to that or could
25. actually perform that in terms of authentication for

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1. that?
2. MR. NEVILLE: That is a feature of
3. the Hawk 3000 system. That doesn't necessarily -- I
4. do not believe the facility has wired that to have
5. remote access. So -- unless I'm wrong.
6. MR. CHOINIERE: No. That's correct.
7. MR. NEVILLE: But that's a feature of
8. the Hawk 3000 control, but not --
9. MR. HARGROVE: Okay.
10. MR. NEVILLE: -- something that has
11. been wired up so remote access can be modified.
12. MR. HARGROVE: I thought we said -- I
13. thought a statement was made that it did have remote
14. access.
15. MR. NEVILLE: No. It has the -- in
16. Appendix B-1, it lists remote setpoint as a feature
17. of the Hawk --
18. MR. HARGROVE: As a feature.
19. MR. NEVILLE: As a feature of the
20. Hawk 3000 system. So that one boiler does have the
21. feature to do that.
22. MR. HARGROVE: Yes, sir.
23. MR. NEVILLE: It has not been wired
24. to access remotely.
25. MR. HARGROVE: Okay.

1. MR. NEVILLE: So --
2. CHAIRMAN MORELOCK: And just for the
3. sake of clarity, if they were to make that change,
4. that would be a technical change to the manual. It
5. would have to come back to the board for approval.
6. MR. HARGROVE: Okay.
7. MR. NEVILLE: Yes.
8. CHAIRMAN MORELOCK: Okay?
9. MR. HARGROVE: Thank you.
10. CHAIRMAN MORELOCK: Any other
11. questions or comments? Okay. I just have a few.
12. One being in your organizational
13. chart -- you do need to label on your org chart
14. who is serving as remote monitoring personnel and
15. boiler attendants.
16. MR. NEVILLE: Okay.
17. CHAIRMAN MORELOCK: On Page 8 -- if I
18. can get there. On Page 8, where you talk about --
19. it's under normal daily duties under Item 2, the
20. same statement I made for the previous review is
21. that if the system is not functioning properly, a
22. boiler attendant shall attend the boiler until the
23. problem is corrected.
24. But I would request that you put per
25. 0800-03-03-.08(11) so that you would revert back

1. to the 20-minute rule until you can get the remote
2. system functioning properly.
3. MR. NEVILLE: We will add that.
4. CHAIRMAN MORELOCK: Okay. Let's see.
5. Page -- on Page 10, your emergency procedure, Item 5
6. says, repeat Items 2 through 5 until
7. acknowledgment's received.
8. I think you want to say 2 through 4.
9. Just a typo.
10. MR. HARGROVE: You'd never get out of
11. that loop.
12. CHAIRMAN MORELOCK: You'd never get
13. out of that one.
14. MR. CHOINIÈRE: All right.
15. CHAIRMAN MORELOCK: I just have a
16. question. It's not a make-or-break thing. But I
17. was just intrigued by the job description in
18. Appendix G -- that you're saying that you're
19. allocating only 5 percent of a remote monitor's time
20. to monitor the boiler, and the boiler attendant, as
21. well, under your variance.
22. I understand that frees them up to do
23. other things. But if you had a situation where
24. you had to go back to the 20-minute rule,
25. obviously, it would be much more than 5 percent.

1. MR. NEVILLE: Correct.
2. CHAIRMAN MORELOCK: Just a comment.
3. That's all that I have.
4. Any other questions or comments?
5. Okay. Hearing none, do I have a motion for
6. contingent approval of this variance based upon
7. corrections to the manual per Tennessee Board
8. comments and a successful site visit by the chief
9. inspector?
10. MR. HARGROVE: Motion for approval.
11. CHAIRMAN MORELOCK: Do I have a
12. second?
13. MR. PISCHKE: Second.
14. CHAIRMAN MORELOCK: Last call for
15. questions or comments. Okay. I'm going to call the
16. question, all in favor, say, "aye."
17. MR. PISCHKE: Aye.
18. MR. HARGROVE: Aye.
19. MR. FOX: Aye.
20. MR. BAUGHMAN: Aye.
21. CHAIRMAN MORELOCK: Opposed?
22. Abstentions? Mr. Bowers, you'll be a not voting,
23. correct?
24. MR. BOWERS: Correct.
25. CHAIRMAN MORELOCK: Since you have a

1. conflict. So we have one not voting.
2. And gentlemen, you have a
3. contingently approved variance.
4. MR. NEVILLE: Thank you.
5. MR. CHOINIÈRE: Thank you.
6. CHAIRMAN MORELOCK: Okay. Our next
7. item is 17-15, BASF Amnicola, requesting a new
8. boiler variance. So if you all will come forward,
9. and you have the next two Items, 17-15 and 17-16.
10. Certainly, we'll allow you to present
11. that any way you want. In my review of the
12. manuals, they're virtually identical, so you
13. present that however you please.
14. MR. HAYS: So I'm Chris Hays with
15. BASF Corporation. I'm an engineering specialist.
16. MS. DAVIS: I'm Brittany Davis. I'm
17. a process engineer at BASF.
18. MR. SANTOS: Good morning.
19. Carlos Santos out of Houston, Texas. I work for a
20. company called Foxboro Schneider Electric. I'm a
21. licensed engineer out of the state of Texas and I
22. sit on the NFPA Board, the National Fire Protection
23. Association. I've been doing so for the last ten
24. years. I'm licensed in -- for the last nine
25. years. And I'm just here to help BASF out.

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1. CHAIRMAN MORELOCK: Okay.
2. MR. BAILEY: Any conflicts?
3. CHAIRMAN MORELOCK: Are there any
4. conflicts? There's none, so proceed.
5. MR. HAYS: Thank you. So BASF's
6. requesting a variance for two boilers located at the
7. 32 Lost Mound Drive facility in Chattanooga, known
8. as the Amnicola Highway plant.
9. The boilers are part of a chemical
10. manufacturing process. We produce
11. styrene-butadiene, polymer dispersions for use in
12. adhesives in phones and asphalt modifiers.
13. In addition to these boilers, we
14. operate 123 other pressure vessels on site. A lot
15. of our processes are covered by -- are governed by
16. OSHA PSM and EPA RMP standards.
17. Our facility has -- is divided into
18. six production units. We have a continuous
19. process from raw material to finished product, and
20. our utilities, Area 1600 is where the boilers,
21. deaerator, air compressors, and that sort of thing
22. are located.
23. Our main control room where remote
24. monitoring would take place is in the middle of
25. the plant. It's centrally located. And our

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1. control rooms are attended 24/7 by either a team
2. leader or one of the other area operators. And
3. operators make adjustments from the process -- to
4. process from the field or from control room DCS
5. consoles. We don't really have a console operator
6. that's a catch-all operator. Our field operators
7. work both ways.
8. So remote monitoring personnel for us
9. would be either fellow operators and team leaders
10. that are assigned to a production shift or a -- it
11. may be an actual boiler operator. So we may have
12. three or four qualified operators on a shift or we
13. may just have one, but it is a rule that we have
14. to have one to operate the plant.
15. So all our operators are in a two-way
16. radio communication. Radios communicate through a
17. repeater and -- or we have direct radio-to-radio
18. capability, plant-wide intercom systems, and that
19. sort of thing to communicate between all the folks
20. involved in operating the boilers.
21. So most of you have seen us before in
22. the last meeting, and we had serious issues with
23. our application. And so we're going to try to do
24. a better job this time, and we wanted to put
25. our -- we thought the best way to go about it was

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1. to put our operating manuals in the exact format
2. of the checklist. That way it would be easier for
3. all of us to understand.
4. And operating procedures that have to
5. fit into the BASF normal corporate format for
6. procedures, that sort of thing -- we just included
7. them so we can meet our requirements and hopefully
8. we meet your requirements.
9. We brought Carlos with us. There
10. were some questions about our control system, burn
11. management, and that sort of thing last time. We
12. thought that -- he's a designer and helped us
13. implement the control system, and I thought, well,
14. he can help answer questions, or if there issues,
15. changes that need to be made, we can work out an
16. acceptable solution a little easier with Carlos on
17. board.
18. So if you folks have any questions,
19. we'll try to answer them.
20. CHAIRMAN MORELOCK: Okay. Do I have
21. a motion for discussion?
22. MR. BOWERS: Motion.
23. CHAIRMAN MORELOCK: Motion. Second?
24. MR. FOX: Second.
25. CHAIRMAN MORELOCK: Second? Okay.

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1. The floor is open. Mr. Bowers?
2. MR. BOWERS: Oh, okay.
3. CHAIRMAN MORELOCK: He jumped the gun
4. on you.
5. MR. BOWERS: Well, the main problem I
6. had last time, at the last meeting was you really
7. didn't have -- you didn't really have any
8. description of the boilers. And I see we have made
9. a good process here. At least we have the National
10. Board numbers, the Tennessee numbers of the boilers,
11. description of the boilers, whereas last time, we
12. really -- you had a good presentation of your
13. equipment as far as your control equipment, but you
14. had nothing really on the boilers themselves.
15. So I see that you made the change in
16. that and you did a good job.
17. MR. HAYS: Thank you.
18. MS. DAVIS: We tried very hard to
19. include what we thought you might need.
20. MR. HAYS: Yeah. We may have gone
21. overboard in some cases, but --
22. CHAIRMAN MORELOCK: Yes, you did.
23. MR. HARGROVE: So my apologies for an
24. absence at the last meeting.
25. Could you both briefly describe your

1. primary responsibilities with regard to the
 2. requests that you're asking and the role that
 3. you've played with respect to the boilers?
 4. MR. HAYS: Well, in the way this came
 5. about for us, we're a -- BASF is a big corporation
 6. but we're a small site within the company. So folks
 7. at our site that are in the engineering functions
 8. and maintenance functions and that sort of thing --
 9. we have to wear a lot of hats.
 10. And at one point in time, I was
 11. involved in managing small capital projects. And
 12. one of my projects was a NFPA compliance project,
 13. and I would be involved in any control system
 14. upgrades on any -- for any of our processes at the
 15. plants. So I&E is my specialty at our site.
 16. So I'm not necessarily a boiler
 17. expert, but as we do these projects, we try to
 18. learn the codes and learn what's required,
 19. manage -- you know, coordinate the change
 20. management process at our site, and get all the
 21. right people involved and that sort of thing. So
 22. being a knowledgeable person, that's sort of how
 23. we ended up here. So I work for the engineering
 24. department.
 25. MS. DAVIS: And as a process

1. engineer, I mostly am responsible for coordinating
 2. our change management. So if we were issued a
 3. variance, I would have to get all the people
 4. involved.
 5. We actually have a sample of our
 6. change management form, and I would be responsible
 7. for training all the operators, getting all the
 8. appropriate personnel involved, and doing some
 9. risk assessments to make sure that we're making
 10. safe changes.
 11. And also, my other core role, I
 12. guess, would be making sure all of our procedures
 13. are up to date and accurate. So oftentimes,
 14. operators will come to me and say, hey, we do
 15. things a little differently now. We might want
 16. to, you know, document this so as we get new
 17. employees, that they're trained on accurate
 18. procedures. So procedure training and MOCs is
 19. where I really fall into this.
 20. MR. HARGROVE: So for these boilers
 21. that are, what, 45 years-plus old, do you guys have
 22. any historical data or maintenance challenges or any
 23. issues with the boilers over this period of time,
 24. from a historical data record perspective?
 25. MR. HAYS: We have -- we keep

1. folders, you know, full of papers on these things
 2. for maintenance records. We did bring some examples
 3. of what some of our maintenance programs look
 4. like --
 5. MR. HARGROVE: Right.
 6. MR. HAYS: -- if you'd like to see
 7. them. We use SAP for a maintenance management
 8. system, so we asked our maintenance manager, hey,
 9. give us screenshot examples from SAP in case you
 10. guys ask for it of the type of maintenance we
 11. perform. So -- showing the annual mechanical PM
 12. when it comes out, annual I&E PM; relief valves are
 13. a separate PM, that sort of thing.
 14. And we -- as far as the challenges,
 15. you know, for keeping old boilers like that --
 16. MR. HARGROVE: Right.
 17. MR. HAYS: -- in good shape, they
 18. have had -- these have had two repairs, I believe --
 19. MR. HARGROVE: Two repairs? Okay.
 20. MR. HAYS: -- over the years. We --
 21. but they're in -- you know, they're normally in good
 22. shape. They're opened up and inspected. Our
 23. inspector considers them, you know, to be in good
 24. shape compared to a lot of them, you know, just from
 25. conversations with him every time we open them up.

1. And we really pay attention. This is another thing
 2. that Brittany's involved in -- is our water
 3. treatment and that sort of thing.
 4. So that -- as far as the challenge --
 5. the challenge might be to keep the water treatment
 6. and that sort of thing up to snuff to keep these
 7. things healthy. You know.
 8. MR. HARGROVE: So is Arise the
 9. inspector and has been for what period of time?
 10. MR. HAYS: Yes. Arise is the
 11. inspector. I'm not sure about what period of time.
 12. I do know for the time that -- as far back as I can
 13. remember, and I've been at the facility for 17
 14. years --
 15. MR. HARGROVE: Yes, sir.
 16. MR. HAYS: -- we've worked with
 17. Steve Alexander. So we've seen him -- see him every
 18. year several times a year. We have a lot of
 19. pressure vessels to inspect. So -- and much of the
 20. plant is the same way. You know, the -- our vessels
 21. are older and they -- you know, we have to really
 22. pay attention to them. So --
 23. MS. DAVIS: The other thing I would
 24. add to that, like Chris said, we have a company for
 25. water treatment, and you know, we don't do it

1. ourselves; we hire experts to treat our water for
 2. deaerators and internal for the boilers. So they
 3. really do a good job keeping things nice and clean.
 4. MR. HARGROVE: All right. Thank you.
 5. CHAIRMAN MORELOCK: Any other
 6. questions or comments?
 7. MR. BAUGHMAN: Yes.
 8. CHAIRMAN MORELOCK: Okay.
 9. MR. BAUGHMAN: So when you go through
 10. the inspection, Mr. Alexander's there. Are you
 11. inspecting one boiler at a time or are both boilers
 12. down?
 13. MR. HAYS: Both boilers are down.
 14. MR. BAUGHMAN: Both boilers come
 15. down?
 16. MR. HAYS: That's normally done. The
 17. way we do our major outages is we have a fall outage
 18. that we like to -- when you stop everything moving
 19. in all the pipes, we would like to get that done
 20. before it gets too cold, and that's a good time of
 21. year to do it. So we'll shut down for about four
 22. weeks during our fall outage. We have to have steam
 23. in order to safely remove other chemicals from the
 24. plant.
 25. So after everything is completely

1. taken out of service, we can bring the boilers
 2. down, both of them, cool them off. Open them,
 3. steam drums, mud drums, level chambers,
 4. interconnecting piping, and that sort of thing.
 5. Steve climbs up there, and you know, actually
 6. inspects all that stuff.
 7. MR. BAUGHMAN: One -- a couple of
 8. questions. It says the steam -- under the
 9. description of system being monitored, it says the
 10. steam goes directly into a 150-pound system.
 11. Under the boiler descriptions,
 12. though, it doesn't say what the boilers are
 13. operating at. It gives a design pressure of 250,
 14. but what are the boilers actually operating at?
 15. MR. HAYS: The normal setpoint for
 16. the header is 150.
 17. MR. BAUGHMAN: Okay.
 18. MR. HAYS: When we have both boilers
 19. in line, they may be operating at 155, 158,
 20. something like that.
 21. MR. BAUGHMAN: Okay. One question
 22. that comes up to mind is, what was the issue with
 23. the DA tank? Since it's a 1996, and I'm taking it
 24. that it's been replaced, since the boilers are '71s.
 25. The DA gets inspected at the same time, I take it,

1. that the boilers come down.
 2. But what was the issue with it that
 3. caused its replacement?
 4. MR. HAYS: I couldn't say. I have no
 5. idea what --
 6. MR. BAUGHMAN: Okay. That's all
 7. right.
 8. MR. HAYS: There's --
 9. MR. BAUGHMAN: And it's just more of
 10. a question than anything, so that's okay.
 11. MR. HAYS: Yeah, the deaerator -- I
 12. don't know. I don't even know any information about
 13. the size of it. It may have been poorly sized or --
 14. I'm not even sure it failed.
 15. MR. BAUGHMAN: Okay.
 16. MR. HAYS: You know. So --
 17. MR. BAUGHMAN: Sure. During the
 18. operation of the boilers, is the feedwater -- do the
 19. feedwater pumps run continuously in this system? I
 20. know I'm looking at the other manual -- they did.
 21. MR. HAYS: Yes.
 22. MR. BAUGHMAN: So these run
 23. continuous.
 24. MR. HAYS: Yes.
 25. MR. BAUGHMAN: So if there's an

1. e-stop that gets hit, it does not turn off the DA;
 2. it just turns off the boiler that's an alarm.
 3. MR. HAYS: That's -- yeah. That's
 4. correct. The deaerator pumps would -- well, in case
 5. you closed all the feedwater valves and that sort of
 6. thing, there's a bypass that keeps them, you know,
 7. above their minimum flow and that sort of thing, so
 8. we're not actually dead-heading the pump. But they
 9. do circulate full-time.
 10. MR. BAUGHMAN: Well, and my concern
 11. is that when you -- it depends on where your e-stop
 12. is tied in on the system. It doesn't necessarily
 13. turn off the modulating feedwater valve, and if the
 14. modulating feedwater valve doesn't have a
 15. spring-to-close mechanism, that that feedwater valve
 16. stays open. The pumps are running continuous, and
 17. you can actually continue to feed water to the
 18. boilers themselves even though they've been shut
 19. off.
 20. So within the electrical system, it's
 21. worth taking a look at to see when you turn the
 22. boiler off in an emergency shutoff, does your
 23. feedwater -- modulating feedwater valve go closed,
 24. because you aren't turning off the pump. It's
 25. running continuous and it's on a different

1. electrical system. So you've got the possibility
 2. of continually feeding water into the boiler,
 3. which could then feed water into the header, which
 4. is going to cause you other issues along the way.
 5. MR. HAYS: Right.
 6. MR. BAUGHMAN: Just an operational
 7. thing just to give consideration of.
 8. MR. HAYS: Well, and that's
 9. interesting. At least -- and I don't -- I'm not as
 10. familiar with the Polymer Drive boilers, exactly how
 11. their valves are set up, but the feedwater valves at
 12. Amnicola are actually -- they're fail-open valves,
 13. and I believe that the thought was that if we had a
 14. failure, a loss of plant air, or something like
 15. that, we wouldn't starve a boiler; we would rather
 16. cause a high-level.
 17. MR. BAUGHMAN: Sure.
 18. MR. HAYS: But we could look into
 19. what are we doing exactly with that feedwater valve
 20. in an emergency situation.
 21. MR. BAUGHMAN: You bet. Well, being
 22. that the boilers are rated 250, we've got relief
 23. valves set up to 200 on the boilers; the DA is set
 24. to 50. We had an incident years ago on a modulating
 25. system where we had a failure of the DA itself, and

1. the DA holds the same potential for problems, as far
 2. as a catastrophic failure, so we always like to try
 3. to bring that into play. Even though it doesn't
 4. matter as far as your variance is concerned, it
 5. definitely is worth looking at from an operational
 6. standpoint just because we're all in this for
 7. safety.
 8. MR. HAYS: Yeah. Even as a -- even
 9. if it was a checklist item or something like that to
 10. cover during emergency situations, too.
 11. MR. BAUGHMAN: Absolutely.
 12. MR. HAYS: And train people on and
 13. that sort of thing, for sure.
 14. MR. BAUGHMAN: That's all I got.
 15. MR. HAYS: We -- and as far as relief
 16. valves and that sort of thing, also -- you brought
 17. those up -- we have all our relief valves in the
 18. plant and their calculations and everything like
 19. that revalidated. It's a five-year revalidation --
 20. MS. DAVIS: Right.
 21. MR. HAYS: -- for everything in the
 22. plant, also. So they look at where, you know,
 23. the -- what are the calculations, how were they
 24. made, and that sort of thing, every five years, as
 25. well as annual inspections and preventive

1. maintenance on. So --
 2. MS. DAVIS: And we actually have the
 3. relief valve calculations in the Appendix if you're
 4. interested.
 5. MR. BAUGHMAN: I saw those
 6. calculations in there. And that brought to mind,
 7. how are the relief valves actually being tested
 8. operational-wise in the field?
 9. MR. HAYS: They're removed and sent
 10. to the valve shop for certification. And then we
 11. get the proper documentation back on --
 12. MR. BAUGHMAN: And that's on --
 13. MR. HAYS: -- on the annual PN.
 14. MR. BAUGHMAN: Excuse me, I'm sorry.
 15. MR. HAYS: On the -- during the
 16. annual PN.
 17. MR. BAUGHMAN: And that's on the DA
 18. tank, also?
 19. MR. HAYS: Let me -- the DA tank
 20. could possibly be on a different frequency. I'll
 21. have to look. I would have to look to confirm that.
 22. CHAIRMAN MORELOCK: Well, it could
 23. since it's a pressure vessel. It's not a boiler.
 24. MR. HAYS: Yeah. So it --
 25. CHAIRMAN MORELOCK: It'd be a

1. two-year internal --
 2. MR. HAYS: It may be a -- yeah.
 3. Yeah. Yeah. So I was -- I'm not sure about the
 4. relief valves on those being removed just because we
 5. have the system down. I'm not sure. So we --
 6. MR. BAUGHMAN: Just as long as they
 7. are --
 8. MR. HAYS: Yeah.
 9. MR. BAUGHMAN: -- being removed and
 10. checked accordingly.
 11. MR. HAYS: Yeah. We have -- yeah.
 12. Every -- every valve in the plant, and we've got a
 13. lot of them. You know. You can imagine with that
 14. number of pressure vessels. So --
 15. MR. BAUGHMAN: Thank you.
 16. CHAIRMAN MORELOCK: Any other
 17. comments? Mr. Pischke?
 18. MR. PISCHKE: I just had a question
 19. on Page 6 of Section B, Description of Monitoring
 20. Personnel, paragraph -- fourth paragraph down. It
 21. says, "If the team leader is required to leave the
 22. control room, one of the remaining process
 23. technicians must stay to respond to alarms from all
 24. areas of the facility."
 25. How is this ensured? Is it like a

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1. procedure that's audited on a regular basis? How
2. do you ensure that that happens?
3. MR. HAYS: Well, the way this is --
4. and the team leader's desk -- their normal area
5. where they sit is in the control room. They are not
6. necessarily the control room monitor. They have
7. other functions, like permitting contractors. They
8. may be answering the telephone for deliveries or
9. that sort of thing, or attending a meeting.
10. So the normal operation in our
11. plant -- and I don't have a procedure included in
12. the manual --
13. MR. PISCHKE: Sure.
14. MR. HAYS: -- that proves this, but
15. our normal procedure is, you know, if the team
16. leader has to leave for his production meeting,
17. he'll call an operator in and they just -- their
18. normal way of handling things is calling somebody on
19. the radio, hey, can you come sit with the control
20. room for the next 15 minutes, that sort of thing.
21. And they -- in practice every day,
22. you know, sometimes there would be an operator
23. stuck in the control room that would like to go to
24. his area and take care of some items, and he has
25. to wait for the next person to show up so he can

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1. be relieved.
2. So they just kind of relay each other
3. in and out. And oftentimes, there's four or five
4. people in there.
5. MR. PISCHKE: Okay.
6. MR. HAYS: But as a minimum, you may
7. have a team leader or a single operator. And that
8. was one reason we kind of pointed out to -- because
9. our single operator is not going to be trained in
10. every area, so we try to add the alarm priority
11. lights, and that sort of thing, that we put in the
12. manual to help those guys make a good decision of
13. what area to go to first in multiple alarms or alarm
14. floods, and that sort of thing.
15. So to answer your question, I don't
16. have it in a -- it's not an audited procedure or
17. anything that we drill for or anything like that.
18. MS. DAVIS: There is always somebody
19. in there, though. You will not go in there and find
20. an empty room. They know better.
21. MR. HAYS: It's the main area of the
22. plant.
23. MR. PISCHKE: Right. Yeah. I
24. guess --
25. MR. HAYS: If they left it alone,

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1. their boss would be calling and saying, where are
2. you people at? You know?
3. MR. PISCHKE: Yeah. If it's a
4. fundamental part of their job, I mean, then, you
5. know, that ensures --
6. MS. DAVIS: Yes.
7. MR. PISCHKE: Yeah.
8. MR. HAYS: Right. And if -- also,
9. if, you know, a person is to even step out and down
10. the hall to talk to a production leader's -- you
11. know, office is right outside the door of the
12. control room, and that sort of the thing.
13. So we have audible buzzers, priority
14. lights, and if any alarm requires operator
15. intervention, priority one, two, three, it's going
16. to be ringing a horn that can be heard throughout
17. the site. And there's a different tone for each
18. area. That sort of thing.
19. MR. PISCHKE: Thank you.
20. CHAIRMAN MORELOCK: Any other
21. comments? Yes, Mr. Robinson.
22. MR. ROBINSON: I have two editorial
23. comments and one question. The first is on Page 4
24. for your valves, you have them listed as two -- I'm
25. sorry, 11-2 by 21 by 2. You may have typos on all

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1. of your pressure relief devices.
2. MS. DAVIS: I believe that was
3. actually how they are listed on the P&ID.
4. MR. ROBINSON: But then on your
5. polymer -- not to get off track. On your polymer
6. manuals they're listed correctly.
7. CHAIRMAN MORELOCK: So and you think
8. that's, like, 1 and 1/2 by 2 1/2 instead of 11?
9. MS. DAVIS: So if you look at the
10. P&ID that is attached in Section --
11. MR. HAYS: Oh, yeah. I should have
12. put a space in there.
13. MS. DAVIS: -- 17 --
14. MR. HAYS: That would have been
15. clearer. I see what you're saying. I'm sorry.
16. CHAIRMAN MORELOCK: Yeah.
17. MR. ROBINSON: So are you okay with
18. that?
19. MR. HAYS: I should have put a space
20. in there. That's a -- yeah, that's an inch and 1/2
21. by 2 and 1/2.
22. MR. HARGROVE: Right.
23. MR. PISCHKE: Yeah.
24. MR. ROBINSON: You have the Boiler
25. Number 1, Boiler Number 2, and the deaerator. Okay?

1. And then you've got a -- I'm not
 2. going to jump around. I'm going to go right to
 3. the manual. The manuals calls -- on your recall
 4. list in Section G, it says to call first instead
 5. of shutting the boiler down.
 6. We would like to see -- the minute
 7. you get the alarm -- that tells us it should be
 8. going into a fail-safe mode, which means that the
 9. monitor is supposed to shut the boiler down; then
 10. he gets into recall mode. Yours is just the
 11. reverse.
 12. When a boiler goes into fail-safe,
 13. you start to make calls. And then if you don't
 14. get an answer, then you put the boiler in
 15. fail-safe. That's valuable time.
 16. MR. HAYS: In the case of high steam
 17. pressure, low water level, low air flow, and that
 18. sort of thing, those -- yeah, those do shut the
 19. boiler down. High water level, at this time
 20. doesn't -- doesn't actually shut the boiler down.
 21. MR. ROBINSON: That's correct.
 22. MR. HAYS: So should we clarify --
 23. MR. ROBINSON: Chief and I talked
 24. about that.
 25. MR. HAYS: Yeah.

1. MR. ROBINSON: But like, in the case
 2. of low water, you go into an alarm situation. Your
 3. monitor should safety the boiler.
 4. In reality, the boiler's going to be
 5. safetied by its hard mechanisms. But the fact
 6. that you're on a four-hour rule means that someone
 7. couldn't -- it could go unnoticed. If it goes
 8. unnoticed, then the boiler could do whatever it
 9. wanted to.
 10. The monitor's job is to make sure the
 11. boiler's secured. Then you make your phone calls,
 12. you get your folks in there and investigate, find
 13. out -- like we had the other one, and he says,
 14. okay. The boiler's at fail-safe and you do what's
 15. necessary.
 16. MR. HAYS: The -- so we should change
 17. our language to the -- to say that the ones that
 18. should shut the boiler down --
 19. MR. ROBINSON: Yes, sir.
 20. MR. HAYS: -- verify that the
 21. boiler's down or shut it down.
 22. MR. ROBINSON: Well, no. When the --
 23. okay. For example, Section G: In the case of any
 24. boiler alarm -- let's take high steam pressure.
 25. Number one, radio or page utility technician

1. immediately to correct the situation. If no
 2. response, number two, from the utility technician,
 3. notify the team leader that the boiler will be shut
 4. down from the control room.
 5. If you don't get a response from
 6. either of those two guys, then you shut the boiler
 7. down.
 8. MR. HAYS: And that --
 9. MR. ROBINSON: When the boiler goes
 10. into high steam, the alarm goes off, monitor shuts
 11. the boiler down.
 12. MR. HAYS: For high -- well, we -- we
 13. have a transmitter on there, so we have before --
 14. before the boiler -- so we have pressure monitoring
 15. on the drums and we have pressure monitoring on the
 16. header --
 17. MR. ROBINSON: Yes, sir.
 18. MR. HAYS: -- also. So we have
 19. alarms that are -- that come along before a
 20. deviation from pressure setpoint. We have high drum
 21. pressure that is -- before we would shut the boiler
 22. down and way below the relief valve setting just to
 23. let the folks know, hey, you're -- you may need to
 24. vent, or maybe a bunch of users closed valves.
 25. So in this case, a high steam

1. pressure alarm -- some of them don't shut the
 2. boiler down. We have a -- I can look and see what
 3. the set points are in here, but the -- we have
 4. other alarms for steam pressure and the header and
 5. that sort of thing --
 6. MR. ROBINSON: I follow what you're
 7. saying.
 8. MR. HAYS: -- ahead of time.
 9. MR. ROBINSON: Let me ask you this:
 10. What we're accustomed to -- what we have been
 11. pursuing is on the hard manual resets.
 12. So if your boiler is set to shut off
 13. at 150 psi, those are the ones that we're
 14. concerned about. Now, if you have -- if you
 15. have --
 16. MR. HAYS: Okay.
 17. MR. ROBINSON: -- such as -- if, for
 18. example, if you're using your automatic low water
 19. cutoff mechanism and it cycles 24/7, all day long,
 20. never really shuts the boiler off, but it cycles --
 21. as long as it's doing that -- and that means you're
 22. not really in a fail-safe position.
 23. And I hate to use that word "not
 24. really." You're not in a fail-safe position.
 25. It's actually calling the pumps to send more

1. water. With that said, if you drop below the
2. secondary manual reset, that's the one I want to
3. see lock out. That's the one I want to see the
4. monitor hear and react to it.

5. MR. HAYS: And -- yes. In our case,
6. where the remote monitoring station is, they have
7. all the alarms for the boilers. But -- so you're
8. saying for the -- just so I'm clear, on our placard,
9. our notice, for these -- we should only mention --
10. we shouldn't even mention ones that don't shut the
11. boiler down. We should just --

12. MR. ROBINSON: The hard --

13. MR. HAYS: We should only mention
14. those. So we should --

15. MR. ROBINSON: The manual resets, the
16. one where you go into fail-safe condition -- and
17. hopefully, I'm explaining that term correctly.

18. Go ahead, please Mr. Bowers.

19. MR. BOWERS: I think what you're
20. saying -- some of these alarms are lower setting
21. alarms, just to warn you that you're getting into a
22. situation, right?

23. MR. HAYS: Yeah.

24. MR. BOWERS: That means, like, if the
25. boiler shuts down, for example, at 200, you might

1. have an alarm going off at 180 saying, hey, we're
2. getting high.

3. MR. HAYS: Yes.

4. MR. BOWERS: And I think that's
5. confusing on the manual. But maybe you shouldn't
6. list those alarms, because it really has nothing to
7. do with shutting the boiler down. That's more in
8. your operation --

9. MR. HAYS: Okay.

10. MR. BOWERS: -- than actually
11. shutting the boiler down.

12. MR. HAYS: Yeah.

13. MR. BOWERS: You're confusing -- we
14. were talking about the alarms -- we're talking about
15. the alarms that are hardwired that have to do with
16. the boiler. If you have production alarms that
17. really don't have to do with shutting the boiler
18. down that's just giving you a warning, that's
19. secondary. Am I right?

20. MR. HAYS: So you would not -- okay.
21. Because our thought was that we would -- for
22. instance, we got one of those -- if we got one of
23. those alarms that was, you know, to let the operator
24. know you're heading -- you're heading outside of
25. previously defined process limits, is the language

1. we usually use for all these other things.

2. When we have that type of alarm, we
3. do want them to follow this. We do want them to
4. let the operator know immediately so he can go see
5. what the deal is and that sort of thing. But as
6. an emergency function, you don't want to see it
7. there.

8. MR. ROBINSON: Please.

9. MR. BAUGHMAN: I've got a comment on
10. the low water, because my thought process is that
11. you've got two low waters; a primary and a
12. secondary. The secondary's the manual reset. But
13. if the secondary happens to have failed and the
14. primary's going off, even though it's not a hard
15. reset, you want that boiler shut off.

16. So low water's low water whether or
17. not it's tripped, be it secondary or not. That's
18. the one reset where the one alarm that needs to
19. have attention to it on being able to lock the
20. boiler out, even though it hasn't necessarily
21. tripped the secondary, the secondary may have
22. failed and may not trip an alarm out.

23. So it's important if, for one, the
24. alarm mechanism beyond the primary low water
25. cutoff -- to be able to shut the boiler off,

1. whether or not it's locked it out on the manual
2. reset or not, I don't feel is --

3. MR. ROBINSON: As long as you
4. hadn't -- went into automatic mode.

5. MR. BAUGHMAN: Yes. So if the boiler
6. goes down on low water, it should be attended to,
7. whether or not it's tripped the manual reset or not.
8. It's saying: I've got an issue.

9. MR. ROBINSON: You should get an
10. alarm.

11. MR. HAYS: And these -- and we do.
12. We do. We get alarms for all -- all three. One
13. that --

14. MR. BAUGHMAN: You bet. But the
15. primary is not a manual reset on the boiler itself.
16. And so that's the only thing that, in an alarm
17. context, it's not going to trip to where you have to
18. go back to the boiler room to reset it. It's just
19. gone off. It's shut the boiler off. It may come
20. back up. It may have been whatever mechanical issue
21. caused it to go into low water, but it still needs
22. to shut that boiler off through the e-stop at the
23. remote station.

24. MR. HAYS: Yes. Our -- and I also
25. wanted to mention ours are set up non-recycling. So

1. your primary or secondary, both of them --

2. MR. BAUGHMAN: Trip.

3. MR. HAYS: -- they trip the boiler.

4. So you get a -- both of them trip and you have an

5. alarm ahead of that, and the level transmitter.

6. So you have analog alarms there for

7. water level through a transmitter of 0 to

8. 100 percent, say, deviation alarming --

9. MR. BAUGHMAN: Yeah. Fantastic.

10. MR. HAYS: -- and a -- and three --

11. I'm sorry -- three switches also. One, being a flow

12. type, one being a probe type. The two of them shut

13. the boiler down.

14. And any of our -- on these particular

15. boilers, any of our master fuel trips, the

16. boiler's down, positively. It doesn't come back

17. up until it goes through a -- until the

18. condition's corrected and HRSG cycle, just like

19. a -- just like a normal startup happens.

20. MR. BAUGHMAN: You bet. I think the

21. issue in -- within this notice, in case of any

22. boiler alarm for, it just gives those few alarms

23. that are on there, and that needs to be somewhat be

24. separated and so forth on it. So --

25. MR. HAYS: We can do that easily.

1. MR. BAUGHMAN: It needs a little

2. massaging.

3. MR. ROBINSON: Yeah. Make it clear

4. that once those four items are dealt with that the

5. monitor knows to shut the boiler down, and then make

6. phone calls.

7. MR. HAYS: Right. Right. Yeah,

8. that -- and we will have to be clear about that --

9. MR. ROBINSON: Or radios.

10. MR. HAYS: -- because like I

11. mentioned on the low water, we have -- there are

12. several low water alarms that you could get. You

13. can get low water from the transmitter. You can get

14. low water from the switch that doesn't shut the

15. boiler down, and we also -- we're going to have to

16. be clear about that to --

17. MR. ROBINSON: Yes, sir.

18. MR. HAYS: -- so we don't confuse our

19. control room operators. They get the first alarm

20. that doesn't shut the boiler down, and then they go

21. knock it off line, you know, and they could upset

22. other processes that way.

23. MR. ROBINSON: Yeah.

24. MR. HAYS: So we can clean that up --

25. clear that up for sure.

1. MR. ROBINSON: The last question is

2. that I'm sure the Chief is going to ask to verify

3. your training records when the audit for your

4. variance is performed.

5. Back in your Section G -- and it's

6. got your training records. I guess Terry Smith --

7. you guys had done the training but he didn't sign

8. off on it.

9. MS. DAVIS: He -- so his -- if you

10. turn to the next page -- let me find it.

11. MR. ROBINSON: It's dated 7/29/17.

12. MS. DAVIS: So if you -- where it

13. says, Page 3 of 3, his signature is there on 7/29.

14. MR. ROBINSON: And what about 4 of 4?

15. MS. DAVIS: Where?

16. MR. ROBINSON: Four of 4.

17. MS. DAVIS: I don't know why he

18. didn't sign off right there. It's up here.

19. MR. ROBINSON: It was just editorial.

20. MS. DAVIS: Right.

21. MR. ROBINSON: I'm sure that you --

22. but make sure that your training records are in

23. line, because --

24. MS. DAVIS: Right.

25. MR. ROBINSON: -- right now, they're

1. not.

2. MR. HAYS: In the case of

3. Terry Smith, he is a newer operator --

4. MR. ROBINSON: Yes, sir.

5. MR. HAYS: -- in that area. He's a

6. team leader and he operates in several areas. So in

7. some cases, they may have not -- he may have not

8. signed it himself.

9. What the operators can do, I mean,

10. they have the option of not signing off and

11. working under another operator, if they need to

12. for a longer period of time if they're not

13. comfortable.

14. MR. ROBINSON: I thought it was

15. possibly editorial.

16. MR. HAYS: Yeah. So we'll --

17. MS. DAVIS: I'm not exactly sure what

18. happened there, but he did sign off on the -- it's a

19. repeat page for whatever reason on this, so --

20. MR. ROBINSON: Well, I went through

21. your various manuals and tried to correlate them. I

22. saw the 1603 for the emergency shutdown, 02, 04; I

23. checked them out.

24. That's all I had, sir.

25. CHAIRMAN MORELOCK: Okay. Any other

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1. questions or comments?
2. MR. HARGROVE: Yeah, one last thing,
3. Mr. Chairman. Our guest from Texas --
4. MR. SANTOS: Yes.
5. MR. HARGROVE: What role did you
6. contribute or are you here for total support or --
7. MR. SANTOS: Total support, yes.
8. MR. HARGROVE: Just support? Okay.
9. MR. SANTOS: Also -- yes. I also
10. designed the system out of Houston and -- along with
11. my mentor who had been working on boilers for 40
12. years in his lifetime. He taught me, so I've
13. carried that torch along now. I designed,
14. implemented, and my team came and commissioned the
15. burn management system for BASF Amnicola.
16. MR. HARGROVE: Okay. All right.
17. Thank you, sir.
18. MR. SANTOS: Okay. Thank you.
19. MR. HAYS: And to go along with your
20. question, also, it may be the appropriate time to
21. discuss this, since we're kind of going to run both
22. of these together.
23. Our strategy, as a company, is to be
24. a one-control system vendor site. It really helps
25. with maintenance and lifecycle management of

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1. products and that sort of thing. We get -- we do
2. a lot better job managing one control system type,
3. and we can cross-train between plants and that
4. sort of thing.
5. And our hope in the future, as we
6. upgrade control systems at Polymer Drive that we
7. would -- is that we would use the same type of
8. system, the same type of products, and be able to,
9. you know, keep -- share spare parts, share
10. knowledge, share all that between the plants.
11. So we also wanted -- if there were
12. other questions, just the -- for how does Foxboro
13. do controls and how do they do burn management,
14. and that sort of thing. We thought Carlos would
15. be able to answer better than us.
16. CHAIRMAN MORELOCK: Any other -- yes?
17. MR. BAUGHMAN: One more item. You
18. mentioned the relief valves are taken care of on the
19. boiler. How often?
20. MR. HARGROVE: That's an annual PM on
21. the boiler relief valves.
22. MR. BAUGHMAN: Okay. And the relief
23. valve device review and approval is done how often?
24. MR. HAYS: The -- for the
25. calculations?

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1. MR. BAUGHMAN: Yes. For the
2. calculations. The -- in other words, what I was
3. looking at was the information that is in here for
4. the DA was 2012, but the boilers are dated 2013, as
5. far as the device review and approval. So I was
6. just kind of interested in that date.
7. MR. HAYS: Some things that we do on
8. five-year cycles (verbatim). A good example would
9. be equipment grounding, that sort of thing -- we
10. have to do on five-year cycles. We sometimes
11. schedule those sort of things to do one-fifth of
12. them every year. So that's a possibility, but our
13. five-year, three-year revalidations, and that sort
14. of thing, can be staggered sometimes for
15. calculations and that sort of thing.
16. MR. BAUGHMAN: Okay.
17. MR. HAYS: Just to keep us from
18. having to do the whole plant.
19. MR. BAUGHMAN: Right. And I was
20. trying to remember what you had said previously on
21. how often that was versus what the dates of this
22. report actually showed.
23. MR. HAYS: Okay. So if you're
24. looking at a relief valve calculation, that would be
25. different than -- what I thought we were discussing

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1. earlier was preventive maintenance where we actually
2. pull the valves, send it to the valve shop
3. (verbatim). It would not be that report.
4. MR. BAUGHMAN: Okay.
5. CHAIRMAN MORELOCK: Right.
6. MR. BAUGHMAN: Very good. Thank you.
7. CHAIRMAN MORELOCK: Okay. Any other
8. comments? Okay. Do I have a motion to approve this
9. variance contingent on the manual being revised per
10. board comments and a successful site visit by the
11. Chief Inspector?
12. MR. BAUGHMAN: Mr. Chairman, are you
13. doing these separately or together?
14. CHAIRMAN MORELOCK: We'll do them
15. separately.
16. MR. BAILEY: Separate? Okay.
17. CHAIRMAN MORELOCK: Hopefully, the
18. conversation will be a little faster, but yes.
19. So do I have a motion?
20. MR. HARGROVE: Yeah.
21. MR. BAUGHMAN: One would hope.
22. CHAIRMAN MORELOCK: Do I have a
23. second.
24. MR. PISCHKE: Second.
25. MR. FOX: I'll second.

1. CHAIRMAN MORELOCK: Okay. Any more
2. discussion? All in favor?
3. MR. PISCHKE: Aye.
4. MR. FOX: Aye.
5. MR. BAUGHMAN: Aye.
6. MR. BOWERS: Aye.
7. MR. HARGROVE: Aye.
8. CHAIRMAN MORELOCK: Opposed?
9. Abstentions? Not voting. You do have a contingent
10. variance. Since it is 15 till 11:00, I've held you
11. longer than I wanted to for a break, so please take
12. a 10-minute break and we'll come back and wrap up
13. your second manual.
14. MR. HAYS: Thank you.
15. CHAIRMAN MORELOCK: Thank you.
16. (Recess observed.)
17. CHAIRMAN MORELOCK: All right. We
18. are on Item 17-16, BASF Polymer Drive, requesting a
19. new boiler variance.
20. MR. HAYS: Okay. This is for a
21. plant, too, known as the Polymer Drive site. So
22. BASF is requesting a variance for two boilers at
23. 2120 Polymer Drive. They're used also as a part of
24. the chemical manufacturing process, producing
25. styrene-butadiene, styrene-butyl acrylate, and

1. polymer dispersions for carpet, vacuums, and paper
2. coatings.
3. The plant operates 91 other pressure
4. vessels, including nine 3,300-gallon reactors.
5. And processes, like Amnicola, are covered by PSM
6. and RMP standards. Both of our facilities are
7. divided into six production units. We have the
8. same -- it's not the same layout, but our -- the
9. purposes for our units are numbered the same. And
10. so the -- at Plant 2, the area at 2,600 is where
11. the boilers are located.
12. So this is the difference, as far as
13. remote monitoring goes, between the two plants.
14. At the Amnicola plant where I
15. explained that the main control room was a central
16. location for all of the operators, for permitting
17. and all that sort of thing, in this case, the
18. reactor control room, mainly serving the reactor
19. area, is the centrally located control room.
20. And it's the one that's attended
21. 24/7. And it's by reactor technicians, so not all
22. flavors of operators, so to speak; it's just the
23. reactor technicians. And there are two of them.
24. So the remote monitoring stations for
25. the boilers are located in the reactor control

1. room, and it's around 300 feet from the boiler
2. room. So same two-way radio communication, that
3. sort of thing, between operators, and same
4. training requirements, minimum requirements, and
5. that sort of thing.
6. Another difference between the two
7. plants, boiler control systems (verbatim). Where
8. we have a Foxboro, a Schneider Foxboro plant DCS
9. at Polymer Drive, it is not controlling the
10. boilers, but it is remotely monitoring. We're
11. using that system for remote monitoring purposes.
12. So that would be the difference.
13. There are standalone control systems
14. on each boiler that were installed as turnkey
15. packages when the boilers were installed. I
16. believe that was -- I think it was 2005. But
17. that's the -- that's the major difference -- it's
18. 2004 on the boiler install. So -- or boiler
19. replacement. So that's the difference.
20. CHAIRMAN MORELOCK: Okay. Do I have
21. a motion to discuss this item?
22. MR. PISCHKE: So moved.
23. CHAIRMAN MORELOCK: Do I have a
24. second?
25. MR. BOWERS: Second.

1. CHAIRMAN MORELOCK: Okay. Are there
2. any conflicts with this item? All right. Hearing
3. none, all in favor, say, "aye."
4. MR. HARGROVE: Aye.
5. MR. PISCHKE: Aye.
6. MR. FOX: Aye.
7. MR. BAUGHMAN: Aye.
8. MR. BOWERS: Aye.
9. CHAIRMAN MORELOCK: Opposed?
10. Abstentions? Not voting? So the floor is now open
11. for discussion. So who's -- who has comments on
12. this package?
13. MR. ROBINSON: Two editorial
14. comments. Obviously, the shutoff discussion, make
15. that first. As far as the recall on the shutoff,
16. the emergency shutoff instructions. Okay? Make
17. editorial changes to secure the boiler first and
18. then start the recall.
19. Okay. And then the other comment I
20. have is that Section -- I guess it's C or B, but
21. it's the description of the system. Let's see.
22. I was going through -- and that's
23. going to be your data sheet. I was going through
24. looking at your boiler certificates, your
25. certifications, and I see you just had the

1. inspection completed in November, and then one in
 2. September.
 3. But you do have an expired
 4. certificate on your boiler -- I guess that's your
 5. first one, your Boiler Number 1, and I'll give you
 6. the number for it. It's the 50491 number. It's
 7. expired since September. And then the DA tank --
 8. it's been dormant since 2008. I don't know.
 9. MR. HAYS: You don't have inspection
 10. records for the DA tank?
 11. MR. ROBINSON: No, sir. Since 2008,
 12. your -- let's see. I do have the date that it was
 13. actually put into service but I didn't write that
 14. down. I just wrote down the date that it was taken
 15. out of service.
 16. And it was taken out of service and I
 17. didn't get the name, but it was 7/2/2008. And
 18. maybe the number could have been -- I don't know.
 19. Something's up.
 20. MR. HAYS: It sounds like --
 21. MR. ROBINSON: So just verify --
 22. MR. HAYS: -- for that information, a
 23. field walk is in order on that.
 24. MR. ROBINSON: It is.
 25. MR. HAYS: And for us and --

1. MR. ROBINSON: Get that information
 2. back to the Chief.
 3. MR. HAYS: -- get that straight.
 4. Yeah. Exactly.
 5. MR. ROBINSON: So that's all I had.
 6. CHAIRMAN MORELOCK: Okay. What other
 7. comments?
 8. MR. PISCHKE: I assume that the same
 9. recommendations for the last modifications would
 10. be --
 11. CHAIRMAN MORELOCK: Yes.
 12. MR. PISCHKE: -- in order for this
 13. one.
 14. CHAIRMAN MORELOCK: And that's
 15. correct. All the comments from the previous manual
 16. will apply for this manual, as well.
 17. So I just have a few comments, while
 18. everybody else is thinking a little bit. On
 19. Page 9 -- it's in Section B, Page 9.
 20. You state that renewal of the
 21. variance will be added to the maintenance plan,
 22. SAP upon approval by the board, inspection by the
 23. Chief Inspector. And then above that, it says,
 24. any manual revision -- the last sentence in the
 25. first paragraph says any manual revision must be

1. approved by the Board of Boiler Rules for the
 2. variance to remain in effect.
 3. That is not entirely true. If your
 4. manual comes up for renewal in three years and you
 5. have no technical changes, that approval can
 6. strictly be handled by the Chief Inspector.
 7. If you do make a technical change,
 8. yes, it would need to come to the board. But we
 9. don't -- we do not have to approve your manual
 10. every three years unless there's a technical
 11. change.
 12. MS. DAVIS: Better safe than sorry.
 13. CHAIRMAN MORELOCK: Huh?
 14. MS. DAVIS: Better safe than sorry.
 15. CHAIRMAN MORELOCK: Yes.
 16. MR. HARGROVE: Okay.
 17. CHAIRMAN MORELOCK: And that's just
 18. for your information. So -- but -- so you really
 19. don't need that sentence, because we don't -- if you
 20. put it in your manual, you don't want us to hold you
 21. to that, right?
 22. MS. DAVIS: Right.
 23. CHAIRMAN MORELOCK: So --
 24. MR. HAYS: Sure. We can -- right.
 25. We can remove that, and the next sentence kind of

1. takes care of that, too, saying that --
 2. CHAIRMAN MORELOCK: Yes.
 3. MR. HAYS: -- if we make any change,
 4. we do our management of change process, which --
 5. CHAIRMAN MORELOCK: Right.
 6. MR. HAYS: -- may or may not
 7. include --
 8. CHAIRMAN MORELOCK: Right. If
 9. your --
 10. MR. HAYS: -- another one of these
 11. manuals.
 12. CHAIRMAN MORELOCK: If your change to
 13. the manual trips the MOC process, it's probably
 14. going to be some sort of technical change, too. But
 15. there's probably -- not always. You're right.
 16. MR. HAYS: Sometimes for things that
 17. are inserted in this manual, such as the operating
 18. procedures that we inserted in there in a certain
 19. format, we may get audited, and an auditor pointed
 20. out to us that our format needs a correction, and
 21. we'll have to change the format of every procedure
 22. out there. So that might be an example of --
 23. CHAIRMAN MORELOCK: That's right.
 24. MR. HAYS: -- where we don't change
 25. how we operate the boilers but we may need --

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1. CHAIRMAN MORELOCK: Right.
2. MR. HAYS: -- a correct procedure
3. inserted into the manual. So we would go -- we
4. would do the change management for that.
5. CHAIRMAN MORELOCK: And with all
6. those procedures in your manual, it's fine. It's
7. your manual. It's not required by the checklist.
8. It's fantastic information.
9. So if you make a change to that
10. procedure, that wouldn't necessarily trigger the
11. board having to review it. You just need to say
12. that this change does not affect the requirements
13. of the checklist. It may affect your internal
14. policies, but we're not telling you how to
15. maintain those policies. So --
16. MR. HAYS: Okay.
17. CHAIRMAN MORELOCK: But if your
18. variance changes, technically, you change
19. controllers, you change boilers, you change
20. setpoints, whatever that may be, then we would need
21. to review that manual at your renewal. Okay?
22. On Pages 12 and 32, I had question.
23. How do you control -- because you
24. have this manual electronically. How do you
25. control your electronic version of this manual

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1. from unauthorized changes?
2. MR. HAYS: The -- well, at this point
3. in time, we have -- electronically, we have it in
4. the maintenance department's files and folders. And
5. so if you wanted rights to edit in that directory on
6. our shared drive, you would have to have permission
7. from the maintenance department and our IT folks --
8. CHAIRMAN MORELOCK: Okay.
9. MR. HAYS: -- would have to give you
10. those rights. Otherwise, probably anyone in
11. maintenance can see it, can see the folders.
12. Operators may not. They may just have manuals and
13. procedures, and that sort of thing. So our folder
14. structure is set up that way where everybody gets
15. some rights and then specific job functions get
16. others.
17. CHAIRMAN MORELOCK: Well, and just --
18. it's for our benefit, as well as yours. You don't
19. want the Chief Inspector to come to your plant with
20. this manual and say, I want to see your electronic
21. version, and they're not the same manual.
22. MS. DAVIS: Right.
23. MR. HAYS: Right.
24. CHAIRMAN MORELOCK: So just -- as
25. long as you control that unauthorized access, that's

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1. very important.
2. MR. HAYS: Right.
3. MS. DAVIS: And then our hard copies
4. are printed on paper that says, document control.
5. CHAIRMAN MORELOCK: And I saw that.
6. Yeah. I saw that. So that's good.
7. MR. HAYS: We'll also -- we'll MOC
8. this also. You know. We'll run this through the
9. change management process also, and there's going to
10. be a risk assessment and everything else that goes
11. along with it, you know, that we have do here on
12. site and all the management approval. But we'll do
13. training on how -- with maintenance on how to
14. maintain their variance, and as a checklist item,
15. get it in the maintenance plan where something's
16. going to come up just like our electrical license or
17. anything else that says, hey, you're due to renew
18. this before it expires.
19. CHAIRMAN MORELOCK: Okay.
20. MR. HAYS: So --
21. CHAIRMAN MORELOCK: Again, like I've
22. said with other manuals, as you read through the
23. manual, you know your facility, you know your
24. process, and you know your people. Make sure your
25. job titles are consistent from org. chart to all

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1. sections of the manual. Okay?
2. It was interesting on Page 30 where
3. you say that you do realize that your remote
4. monitors could be distracted, but you also cover
5. that by having more than one person monitoring at
6. any given time. So that was a nice way to state
7. that.
8. Page 42. I had a question. Is the
9. utility technician the boiler operator?
10. MR. HAYS: Yes, sir.
11. CHAIRMAN MORELOCK: Okay. What about
12. a process tech?
13. MR. HAYS: All plant operators are
14. process technicians --
15. CHAIRMAN MORELOCK: Okay.
16. MR. HAYS: -- as a general job
17. description.
18. CHAIRMAN MORELOCK: Okay. Again,
19. that goes back to my previous statement. Make sure
20. we understand that those are the same people.
21. And then you've got a lot of great
22. information in here. Just for my clarity, who is
23. responsible for the boiler facility, implementing
24. this variance, and keeping the manual current?
25. MR. HAYS: How did we state that in

- 1. the -- looking at --
- 2. MS. DAVIS: I believe we said that it
- 3. was a maintenance thing to keep current, because
- 4. it's in their maintenance SAP.
- 5. CHAIRMAN MORELOCK: Because we just
- 6. want a point of contact that's -- usually see that
- 7. in your cover letter, which would be under
- 8. Section A. And it says that you all are present,
- 9. which you are here today, but I didn't see a
- 10. specific listing. And in your cover letter would be
- 11. fine just to say, this is who's responsible for the
- 12. boiler facility, implementation of the variance, and
- 13. maintaining the manual.
- 14. MS. DAVIS: Just one second.
- 15. CHAIRMAN MORELOCK: Because I saw a
- 16. term that said "change coordinator" and I --
- 17. MR. HAYS: Okay. Okay. Yeah. So
- 18. that -- whenever we make a change --
- 19. CHAIRMAN MORELOCK: Right.
- 20. MR. HAYS: -- if I initiate the
- 21. change, I'm the change coordinator. If it's a
- 22. change for this manual, then I would be responsible
- 23. for it.
- 24. CHAIRMAN MORELOCK: Right.
- 25. MR. HAYS: Unless I make Brittany the

- 1. change coordinator or something like that where you
- 2. can hand it off to other people.
- 3. CHAIRMAN MORELOCK: And revising the
- 4. manual, that's fine, but we just want a name of
- 5. who's responsible for those functions, whoever that
- 6. may be.
- 7. MR. HAYS: If it needs to be one
- 8. person, we can name --
- 9. CHAIRMAN MORELOCK: Well, no, I mean,
- 10. you could be different people responsible for the
- 11. boiler facility, a different person responsible for
- 12. the variance, and a different person for the manual.
- 13. You just tell us who that is.
- 14. MR. PISCHKE: What position.
- 15. CHAIRMAN MORELOCK: Yeah.
- 16. MR. HAYS: We try to --
- 17. CHAIRMAN MORELOCK: And it could be a
- 18. job position or a name.
- 19. MS. DAVIS: Yeah.
- 20. CHAIRMAN MORELOCK: A job position
- 21. would be acceptable. That way, you don't have to
- 22. revise your manual any time you have a personnel
- 23. change.
- 24. MR. HAYS: Yeah, I'm thinking that we
- 25. didn't get too specific on that, because possibly --

- 1. CHAIRMAN MORELOCK: Right.
- 2. MR. HAYS: -- like even our pipe
- 3. service index where we, you know, have gasket types
- 4. and certain things, valve types and materials and
- 5. construction for different services, that I may be
- 6. instructed to -- you know, by my manager to do an
- 7. update and I might do an MOC on -- another project
- 8. manager might do it. So at our plant -- the way
- 9. it's actually done -- it's not one certain person's
- 10. job function. You know.
- 11. CHAIRMAN MORELOCK: Okay.
- 12. MR. HAYS: It may be whoever's
- 13. available in the engineering department to head the
- 14. thing up and see that it's done correctly --
- 15. CHAIRMAN MORELOCK: Well --
- 16. MR. HAYS: -- or production, but --
- 17. CHAIRMAN MORELOCK: -- you know, we
- 18. being the board and the State --
- 19. MR. HAYS: Right.
- 20. CHAIRMAN MORELOCK: -- they just need
- 21. to know -- like, when they make that site visit --
- 22. MR. CHAPMAN: Who they're --
- 23. CHAIRMAN MORELOCK: -- who do they
- 24. talk to about being responsible for the manual,
- 25. responsible for the boiler --

- 1. MS. DAVIS: So the way that Section
- 2. Number 11 is written that says who's responsible for
- 3. the manual updates -- really, what happens is if we
- 4. were granted a variance, then it would go into our
- 5. SAP program, which in three years will kick out and
- 6. say, hey, you need to determine if you've had any
- 7. changes, which, you know, if we haven't had any
- 8. changes, technically, we would have come back to the
- 9. Board already (verbatim).
- 10. But it will be a maintenance
- 11. responsibility to inform somebody that, hey, this
- 12. needs to be looked at because it's kept in their
- 13. maintenance system. Then it will go to probably
- 14. whoever coordinated the last MOC. But on our
- 15. cover letter it has Chris's and I's contact
- 16. information.
- 17. CHAIRMAN MORELOCK: Okay.
- 18. MS. DAVIS: So really what would
- 19. happen is maintenance would, in theory, if both of
- 20. us are still there, contact us and say, hey, you
- 21. need to do something about this.
- 22. CHAIRMAN MORELOCK: So you could put
- 23. your job titles in --
- 24. MS. DAVIS: Right.
- 25. CHAIRMAN MORELOCK: -- if you want

1. to, just to add some clarity to that. That would be
 2. fine.
 3. MR. HAYS: Okay.
 4. CHAIRMAN MORELOCK: Okay?
 5. MR. HAYS: A little more information
 6. there. I would say as long as we're employed at the
 7. Chattanooga site, that Brittany and I will be --
 8. MS. DAVIS: Are the lucky ones.
 9. MR. HAYS: Yeah. Nobody's going to
 10. volunteer to take that over.
 11. MR. ROBINSON: Both of you two guys
 12. are predating yourselves.
 13. CHAIRMAN MORELOCK: That's all the
 14. comments I have. It is a very good manual, though,
 15. by the way.
 16. MR. HAYS: Thank you. Thank you.
 17. CHAIRMAN MORELOCK: You did a lot of
 18. work on that. So anything else?
 19. MR. BAUGHMAN: Yes sir. So on
 20. Page 19 under remote monitoring system descriptions,
 21. under the remote alarm system -- under a remote
 22. alarm system, it says, alarms are displayed to the
 23. operator via the current alarm display and
 24. prioritized according to urgency and severity.
 25. I don't see a prioritization chart,

1. so I'm wondering, is that a -- how is it
 2. determined the urgency and severity? What's the
 3. protocol? Is it a written protocol?
 4. MR. HAYS: Well, I almost hate that
 5. we're talking about Polymer on this, because our
 6. actual alarm prioritization procedure that I'm most
 7. familiar with is for Amnicola. But we actually have
 8. a procedure where we say, you do a risk assessment
 9. and there's a risk matrix in there that's similar to
 10. what we use -- the corporate risk matrix that we use
 11. for assessing risk.
 12. And then you would look at things
 13. like, does it require operator intervention? Does
 14. it -- is this an alarm that would -- that could be
 15. handled in the next 15 minutes that requires
 16. operator intervention? Is it immediate? That
 17. sort of thing. And it's prioritized that way at
 18. our --
 19. MR. BAUGHMAN: Is it a written -- I
 20. mean, how -- in other words, I'm sitting at the
 21. remote station and I get an alarm, how do I --
 22. what's my protocol for knowing urgency and severity?
 23. MR. HAYS: It's -- on the current
 24. alarm display, when you get alarms in the corner of
 25. the display. It gives you a colored square. Red

1. with a one in it would be a priority one; amber with
 2. a two in it would be priority two; blue with a three
 3. in it, I think is what the normal convention is for
 4. that --
 5. MR. BAUGHMAN: Is that described in
 6. this manual?
 7. MR. HARGROVE: It's --
 8. MS. DAVIS: We have a photo of the
 9. lights.
 10. MR. HAYS: Well, we have the -- that
 11. was for Amnicola.
 12. We do have a screenshot of a current
 13. alarm display, though.
 14. MR. BAUGHMAN: Okay.
 15. MR. HAYS: Somewhere. This is
 16. where --
 17. MR. BAUGHMAN: So when the inspector
 18. goes to do his variance inspection and he makes the
 19. boiler trip and shut off, if it's not determined a
 20. urgent or severe and it's an amber instead of a red,
 21. it may not require a shutdown, according to a risk
 22. matrix. It's been determined? Is that what I'm
 23. getting at?
 24. MR. HAYS: As far as -- maybe I could
 25. have put this differently. As far as alarms that

1. require an operator intervention, generally, we have
 2. priority one, two, three, and five.
 3. So some priority alarms -- or
 4. priority five alarms are used for time stamps,
 5. basically. They may trigger, but it's not really
 6. an alarm; it's a notification. It's a low enough
 7. priority to where if we need to know, hey, this
 8. process change happened in the middle of the
 9. night. We started having trouble with such and
 10. such, and it doesn't have to be the boilers.
 11. Where we would say, well, we saw that this
 12. happened during this time. You know. And it's in
 13. an alarm log.
 14. MR. BAUGHMAN: Sure. But specific to
 15. the boilers.
 16. MR. HAYS: But specific to the
 17. boilers, at Polymer Drive, there are fewer alarms
 18. there, and I do not have the information in there
 19. for their priority. Their exact -- this alarm is
 20. this priority and this alarm is that priority; I
 21. don't have that information in there.
 22. MR. BAUGHMAN: Okay.
 23. MR. HAYS: If it comes to the control
 24. room from the boilers at Polymer Drive, it's low
 25. water, high pressure, a boiler shutdown, I believe

1. we listed them --

2. MR. ROBINSON: So what priority --

3. MR. HAYS: -- but we didn't list the

4. priority.

5. MR. ROBINSON: -- would those take?

6. MR. HAYS: Well, they should be a

7. priority one, because a boiler alarm -- and I don't

8. have the procedure in front of me for prioritizing,

9. but I would say it's a -- we have some words in our

10. procedure that, you know, says that it may have EHS

11. significance.

12. MR. ROBINSON: Yes, sir.

13. MR. HAYS: Or it may have

14. environmental, you know, impacts if you're running a

15. tank over, or something like that. You know,

16. spilling a chemical. That sort of thing.

17. So EHS-related items are generally in

18. that priority one. I believe -- I don't think you

19. can get to priority one without having a --

20. MS. DAVIS: The risk matrix that we

21. use is actually the same risk matrix we use when

22. we're doing our PHAs for PSM purposes.

23. MR. ROBINSON: Yes, ma'am.

24. MS. DAVIS: So -- and really, where

25. the prioritization comes in -- like we said, there's

1. always somebody in the control room, so they're not

2. going to let an alarm go off and then not

3. acknowledge it.

4. But really, where the prioritization

5. comes in is if there's multiple alarms going off,

6. they need to know which ones to attend to first.

7. Like I said, they're going to look at

8. alarms, but if they have three going off at the

9. same time, maybe one's, you know, high priority

10. and the other two are lower. So they're going to

11. be directed to the high priority first.

12. CHAIRMAN MORELOCK: But does this tie

13. back to Mr. Robinson's comment about the -- go ahead

14. and e-stop the boiler. Don't get on the radio.

15. Don't be calling people. So if you get a red square

16. with a priority one in it, does that need to go in

17. your emergency procedure, as well, to go ahead and

18. e-stop that boiler? I don't know.

19. MR. HAYS: Well, as far as -- and

20. we'll have to think about that a little bit --

21. CHAIRMAN MORELOCK: Yeah.

22. MR. HAYS: -- to make it clear to the

23. operator --

24. CHAIRMAN MORELOCK: Yeah.

25. MR. HAYS: -- here is exactly what

1. you should do. But then in other cases like at

2. Amnicola where they have the full alarming

3. capability --

4. CHAIRMAN MORELOCK: Right.

5. MR. HAYS: -- there, you know, and

6. don't have the standalone control systems at the

7. boilers. They have a little bit different

8. decision-making process.

9. CHAIRMAN MORELOCK: Okay.

10. MR. HAYS: Also, at Polymer Drive,

11. it's a little less confusing, possibly, for the

12. operators, because if you are a finishing

13. operator -- this is why it's important at Amnicola

14. to have good alarm prioritization and good

15. indications. We even have lights above the stations

16. just to let them know during an alarm flood, if that

17. were to happen, where they need to go first.

18. Because they may not be trained in two of those

19. areas, and they just relay information. Here's what

20. I'm seeing on the screen, Mr. Operator, for this

21. area.

22. At Polymer Drive, just reactor guys.

23. Just the reactor area and boiler alarms. You

24. know, certain -- that show up on the miscellaneous

25. page that we included in the manual. There's

1. examples of what -- there's a miscellaneous alarms

2. page.

3. So when they get an alarm in the

4. boiler area, they would get an indicator; their

5. little tab would be flashing; it would direct them

6. to click on it; and that page would open up they

7. would see it, you know, right away.

8. So it's not exactly the same between

9. the plants, and I'm not sure we got that across as

10. well as we could have.

11. MR. BAUGHMAN: Yeah. Well, and

12. that's why we look at these individually, too,

13. because they are two separate installation

14. identities. But --

15. MR. HAYS: Yeah. I think it's easier

16. for the Polymer guys to, you know, sort through

17. their alarms because the vast majority of anything

18. that they did are the reactor area. You know, in

19. their normal routine.

20. MR. ROBINSON: Mr. Hays, when we --

21. Chief just advised me. When we perform your audit,

22. we're going to be looking for your boiler to shut

23. down on the fail-safes. What you do with your

24. matrix -- I know it's outside the scope of our

25. variance, but what we want to see is the boiler put

1. into a safe condition.
2. And naturally, it's going to revert
3. back to your emergency operating procedure with
4. the Items 1 through 4, and the first one being,
5. you know, the monitor's going to make a phone call
6. or he's going to actually shut down the boiler,
7. and then he's going to start making phone calls.
8. That's what we're doing. We're here to verify
9. that.
10. MR. HAYS: And --
11. MR. ROBINSON: Just to be clear.
12. MR. HAYS: Right. Right. So same as
13. the Amnicola, basically. If it's a high enough
14. pri -- if the alarm priority that's assigned to it
15. doesn't necessarily determine in the burner
16. management system that it shuts the boiler down or
17. not, we could -- it's either -- it either meets the
18. requirement for burner management or not. You know.
19. So that's what you'll see. That's what you'll see.
20. You'll see it.
21. MR. ROBINSON: Now I can get the
22. Chief off my back.
23. MR. HAYS: I didn't want you to think
24. that possibly something that should have shut the
25. boiler down, low water cutoff -- oh, they messed up

1. and assigned priority five and it doesn't shut the
2. boiler down -- that doesn't determine whether it's
3. a -- you know, hardwired analog or anything like
4. that shuts the thing down.
5. MR. ROBINSON: Yes, sir.
6. MR. HAYS: That's operational-type
7. stuff. What does that mean to you as an operator?
8. How important is it, possibly, to you, if you're not
9. familiar with the area? So --
10. MR. BAUGHMAN: How is your
11. feedwater -- these are, again, modulating feedwater
12. on the boilers?
13. MR. HAYS: Yes, sir.
14. MR. BAUGHMAN: And how are they
15. controlled? Did you say they were pneumatic or are
16. they electric off the boiler?
17. MR. HAYS: I believe those are
18. pneumatic. I believe those are. I'll have to -- I
19. would have to look here.
20. MR. BAUGHMAN: Okay. And again, who
21. is in charge of training within your manual itself
22. and within the boilers themselves?
23. MS. DAVIS: So it depends on what
24. kind of training you're talking about. Like --
25. MR. BAUGHMAN: Okay. Let's -- I'm

1. sorry, go ahead.
2. MS. DAVIS: Like I said, for the MOC
3. process, if we were to initiate MOC, that would be
4. myself or whoever initiates the MOC, but as far as
5. boiler training and area training for whatever job
6. they might be doing, the process for that is the new
7. technician will follow a senior operator. So we
8. have several levels of process technicians, so they
9. will shadow a senior technician.
10. And then the production group leader
11. will evaluate whether, you know, they're -- you
12. know, we have some questions and stuff that they
13. go through, and they will evaluate whether they
14. are qualified or not.
15. Now, the technician in training does
16. have the opportunity to say, I don't feel
17. confident in this yet and I prefer to keep on
18. training. So it's a combined decision between the
19. senior process technician that is being shadowed,
20. the new process technician, and the production
21. group leader. And then annual training is kicked
22. out in our learning management system for
23. refresher.
24. MR. BAUGHMAN: And who's in charge of
25. training through the variance manual?

1. MS. DAVIS: Excuse me?
2. MR. BAUGHMAN: Who is in charge of
3. training personnel to the variance manual?
4. MS. DAVIS: That would be whoever
5. initiates the MOC, so either Chris or myself, or
6. maybe it'll be a joint effort.
7. MR. HAYS: It'll most likely be us.
8. MR. HARGROVE: Should that be stated?
9. MR. BAUGHMAN: Well, is that not a
10. requirement for it to be stated as far as who's in
11. charge of training, specifically?
12. MR. ROBINSON: It's a good idea to
13. make someone responsible. And that way, naturally,
14. you can ask the question once and do it, and get a
15. direct answer.
16. MR. BAUGHMAN: I just didn't know if
17. that was actually a requirement or not of our
18. variance that there's someone specific to the
19. training or that that be identified.
20. CHAIRMAN MORELOCK: It's just --
21. again, we're not going to tell them how to train --
22. MR. BAUGHMAN: Super.
23. CHAIRMAN MORELOCK: -- they just have
24. to train.
25. MR. BAUGHMAN: All right.

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1. CHAIRMAN MORELOCK: Okay.
 2. MR. PISCHKE: But just to add to
 3. that, the clearer you can be with that --
 4. CHAIRMAN MORELOCK: Yeah.
 5. MS. DAVIS: Right.
 6. MR. PISCHKE: -- it just makes it
 7. easier.
 8. CHAIRMAN MORELOCK: It does. Any
 9. other questions or comments? All right. Hearing
 10. none --
 11. MS. DAVIS: We -- so can I interject
 12. for just one second?
 13. CHAIRMAN MORELOCK: Yes. You're --
 14. MS. DAVIS: On Page 27, it says the
 15. MOC coordinator is responsible training remote
 16. monitoring personnel and boiler operators on
 17. changes. The last sentence.
 18. CHAIRMAN MORELOCK: Okay.
 19. MR. BAUGHMAN: On changes.
 20. MS. DAVIS: So we stated previously
 21. that if we were given a variance, this manual would
 22. go through a management of change process, and right
 23. here we're saying the MOC coordinator is responsible
 24. for training.
 25. MR. HAYS: So if it's your MOC,

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1. you're responsible to get everybody trained,
 2. basically, unless you can convince one of your
 3. co-workers to do it or something.
 4. MS. DAVIS: And it's face-to-face
 5. training and all the operators have to sign off on a
 6. physical sheet that they understand.
 7. MR. BAUGHMAN: Thank you.
 8. CHAIRMAN MORELOCK: Okay.
 9. MR. GROSS: Mr. Chairman?
 10. CHAIRMAN MORELOCK: Yes, sir.
 11. MR. GROSS: Jeremy Gross with Valero.
 12. So at our site, for that question, David, you had,
 13. so our boiler operators folks require an annual
 14. training. The complex manager is the one who's in
 15. charge of those guys' training. So he invokes the
 16. training of our variance procedure at our site.
 17. I didn't know if that would answer
 18. more of what -- Dave, what you were asking for,
 19. who actually invokes the training after your
 20. variance is approved. So at our site, the
 21. subsequent training efforts are identified with
 22. the complex manager so he can -- just something I
 23. wanted to help you guys out with.
 24. MR. BAUGHMAN: Thank you, Jeremy.
 25. CHAIRMAN MORELOCK: And Page 27

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1. answers the question. And you've got job titles so
 2. you don't have to update it every time there's a
 3. personnel change, so thank you.
 4. Any other questions or comments?
 5. Very, very good discussion.
 6. With that said, I'm going to -- I
 7. need a motion for contingent approval of this
 8. variance manual --
 9. MR. PISCHKE: So moved.
 10. CHAIRMAN MORELOCK: -- contingent
 11. upon the -- oh, sorry.
 12. MR. PISCHKE: No. Go ahead.
 13. CHAIRMAN MORELOCK: Contingent upon
 14. the fact of the changes being -- the comments from
 15. the board being implemented into the manual, as well
 16. as a successful site visit from the Chief Inspector.
 17. MR. PISCHKE: So moved.
 18. CHAIRMAN MORELOCK: So moved.
 19. MR. PISCHKE: Yes, sir.
 20. CHAIRMAN MORELOCK: You got a second?
 21. MR. BAUGHMAN: Second.
 22. CHAIRMAN MORELOCK: All right. Last
 23. chance for any more comments. Okay. Hearing none,
 24. all in favor, say, "aye."
 25. MR. FOX: Aye.

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1. MR. HARGROVE: Aye.
 2. MR. PISCHKE: Aye.
 3. MR. BAUGHMAN: Aye.
 4. MR. BOWERS: Aye.
 5. CHAIRMAN MORELOCK: Opposed?
 6. Abstentions? Not voting? You have a contingently
 7. approved variance manual.
 8. MR. HAYS: Thank you.
 9. MS. DAVIS: Thank you.
 10. MR. BAUGHMAN: It's good to see you
 11. guys again.
 12. MS. DAVIS: It's a pleasure.
 13. MR. HAYS: We're glad it went a
 14. little smoother this time.
 15. MR. PISCHKE: It's like anything
 16. else. Go through it once and --
 17. MR. HAYS: Thank you all.
 18. CHAIRMAN MORELOCK: Thank you.
 19. MR. PISCHKE: Thank you.
 20. CHAIRMAN MORELOCK: Okay. That
 21. concludes our old business. Moving on to Item 8 on
 22. the agenda, which is New Business. And our first
 23. item is Item 17-17.
 24. Valero Memphis Refinery is going to
 25. give us a risk-based inspection program update.

1. MR. GROSS: All right. Good morning,
2. board and guests. I'm Jeremy Gross. I'm the chief
3. inspector at the Valero Memphis Refinery. I'm here
4. to give our annual review of our RBI inspection
5. program to show that we are evergreening in keeping
6. that program constant.

7. The report before you -- the
8. summary -- our risk-based inspection programs to
9. be active at the Valero Memphis Refinery
10. (verbatim). We continue to maintain our scheduled
11. damaged mechanism, specific inspections planned,
12. and executed on training during routine
13. maintenance or during major maintenance outages.

14. The key activities related to the
15. program in 2017 are as follows: The site
16. underwent a corporate process safety management
17. audit, as well as a Tennessee occupational safety
18. and health administration voluntary site audit in
19. 2017.

20. Following the rigorous evaluation,
21. the site achieved the prestigious honor of being
22. named a VPP star site. That is a big
23. accomplishment for our facility. We've been
24. working towards that for quite some time. The
25. Memphis Refinery is now one of just 36 volunteer

1. star sites in Tennessee. So we're very proud of
2. that accomplishment.

3. Valero has a total of 15 refineries
4. and is leading the refining industry with nine
5. total star sites across the U.S. and two outside
6. of the North American continent. Our maintenance
7. and inspection activities executed during 2017 are
8. listed in Table A below in the report.

9. Also, the State Chief Boiler
10. Inspector and Deputy Boiler Inspector did complete
11. a site audit for our boiler operating inspection
12. of maintenance program procedure. That procedure
13. was approved for 24-month internal inspection
14. frequency, and was put into place on
15. March 21st, 2017.

16. The site will also have a few process
17. units taken down for maintenance work in the month
18. of November, which we completed that maintenance
19. work. And then we're also having planning efforts
20. ongoing for our 2019 outage, as well as a 2018
21. outage.

22. As far as Table A, you can see our
23. internal inspections that we performed in 2017 up
24. to November was 111. We have 72 planned for 2018.
25. We completed 417 external inspections, and we have

1. 108 planned for 2018. And we completed six CUI
2. inspections, which is corrosion under insulation,
3. as well as -- I have 21 planned for 2018.

4. And our jurisdictional inspection
5. total for 2017 was 231. As you can see, we have
6. quite a hefty year for 2018 with 488 coming,
7. starting in January. So a big year for our
8. jurisdictional externals coming up.

9. Our evergreen activities for the RBI
10. program include, reviewing our assigned damage
11. mechanisms and executing those proper inspection
12. techniques. And then we record those inspection
13. results and grading them per our respective
14. inspection effectiveness tables. Those scheduling
15. activities happen within our PCMS data management
16. system, and we utilize a RBI module using the RBI
17. methodology.

18. Non-intrusive inspection techniques
19. are executed and captured during the external
20. inspection, routine corrosion monitoring, and
21. especially non-destructive testing is performed
22. when required. And we do revalidate our fluid
23. properties and operating conditions ongoing on a
24. five-year interval, which is per PSM rules and
25. regulations.

1. Our jurisdictional activities on our
2. registered equipment are maintained with zero
3. delinquencies and are handled outside our RBI
4. program. Our process equipment is circuitized and
5. risk-ranked in the RBI program. Our data
6. management software integrates the design
7. information, visual inspection history, thickness
8. monitoring data, the assigned damage mechanism
9. inspection results, and inspection scheduling that
10. is integrated within the RBI module.

11. The table below, the risk data
12. distribution shows our risk levels currently for
13. all our circuits within our pressure vessels in
14. the system. We did have a change with all the
15. inspection activities. We reduced risk,
16. basically, on 194 circuits within our system. We
17. have a total of 1,819 circuits within our program.

18. As far as key results in 2017, the
19. overall 111 internals, 417 externals, the six CUI
20. inspections were performed in accordance with our
21. RBI manual and program. Our damage mechanism
22. specific inspection activities decreased 194
23. circuits, as mentioned in our 2017 activities.

24. We also executed insulation and
25. fireproofing repairs on our pressure vessels and

1. structures within our plants this year. We did
 2. have an insurance audit, and that was one of our
 3. areas that we had a finding on, and we corrected
 4. that finding.
 5. Are there any questions from the
 6. board of the data presented?
 7. CHAIRMAN MORELOCK: Any questions?
 8. MR. BAUGHMAN: It's a good report.
 9. MR. GROSS: Thank you.
 10. MR. BAUGHMAN: Yeah. Jeremy, you do
 11. real well. You mentioned the boilers got a variance
 12. approved for two-year, 24-month inspection
 13. intervals?
 14. MR. ROBINSON: Internal inspection.
 15. MR. GROSS: Yes, sir.
 16. MR. BAUGHMAN: Internal inspections?
 17. MR. GROSS: Yes, sir.
 18. MR. BAUGHMAN: So when was the last
 19. time they were inspected?
 20. MR. GROSS: Last year.
 21. MR. BAUGHMAN: Last year.
 22. MR. GROSS: Yeah. We will maintain
 23. our every six-month external inspection during that
 24. 24-month period. So we will be also continuing our
 25. external six-month.

1. MR. BAUGHMAN: Good. But the
 2. internal's gone to 24-month --
 3. MR. GROSS: That is correct. Yes,
 4. sir.
 5. MR. BAUGHMAN: And that's something
 6. that we brought and discussed here previously.
 7. MR. GROSS: Yes, sir.
 8. CHAIRMAN MORELOCK: Jeremy, what RBI
 9. software are you using?
 10. MR. GROSS: We use PCMS, which is
 11. Plant Condition Monitoring System, and that modules
 12. based off the EPI.
 13. CHAIRMAN MORELOCK: Okay. Very good.
 14. Any other questions or comments?
 15. MR. BAUGHMAN: I'd just like to
 16. congratulate you for obtaining VPP status.
 17. MR. GROSS: Thank you.
 18. CHAIRMAN MORELOCK: Yeah.
 19. MR. BAILEY: That was very hard to
 20. do.
 21. MR. GROSS: Yes, sir. We've got --
 22. we actually have two of our employees, Tara and
 23. Thomas, who you know, Dan.
 24. MR. BAUGHMAN: Yeah.
 25. MR. GROSS: He has now been trained

1. to be an SGE employee to work with
 2. Mr. David Blessman to go out to other sites and help
 3. with other VPP assessments, as well as our -- we
 4. have a VPP coordinator, and his name is
 5. John Pfiffer. He was also trained.
 6. So we have two SGEs at our site now
 7. that will be able to help Tennessee OSHA conduct
 8. assessments. As a matter of fact, your PSM
 9. manager came to our site, Brian, to do ours.
 10. CHAIRMAN MORELOCK: Yeah.
 11. MR. GROSS: So -- as an SGE.
 12. CHAIRMAN MORELOCK: Very good. Any
 13. more comments? Okay. With that said, do I have a
 14. motion to accept the Valero report to give them --
 15. MR. PISCHKE: Conflict.
 16. MR. BAILEY: Is there a conflict?
 17. CHAIRMAN MORELOCK: Oh, yeah. Thank
 18. you. Is there a conflict of interest? All right.
 19. Good.
 20. So do I have a motion to accept the
 21. Valero report to allow them to continue the RBI
 22. program?
 23. MR. BAUGHMAN: So moved.
 24. MR. PISCHKE: Second.
 25. CHAIRMAN MORELOCK: Second? Any more

1. discussion? All in favor, say, "aye."
 2. MR. BAUGHMAN: Aye.
 3. MR. PISCHKE: Aye.
 4. MR. BOWERS: Aye.
 5. MR. FOX: Aye.
 6. MR. HARGROVE: Aye.
 7. CHAIRMAN MORELOCK: Opposed?
 8. Abstentions? Not voting? Jeremy, thank you for
 9. your report.
 10. MR. GROSS: Thank you.
 11. CHAIRMAN MORELOCK: All right. Our
 12. next item is 17-18, Wacker Polysilicon, and they're
 13. going to also present their RBI report to the board,
 14. as well.
 15. MR. ENG: Richard Eng, Wacker
 16. Chemical. Good morning.
 17. MR. HARGROVE: Good morning.
 18. CHAIRMAN MORELOCK: Good morning.
 19. MR. ENG: I would like to present our
 20. RBI program and provide an update to the board
 21. members. Perhaps I'll just take a few seconds to
 22. recap who we are, what we have done, or not done.
 23. Wacker Chemical had a facility built
 24. here about three or four years ago, spent about
 25. \$2.5 billion. It's a legacy production facility

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1. for polysilicon, meaning that they've been
2. producing this product for quite a while;
3. approximately five decades.
4. Back in 2015, we commissioned the
5. site, late 2015. And in 2016, early 2016, we
6. operated the site at a steady state. And soon
7. after, we demonstrated a nameplate capacity of
8. 20,000 tons of polysilicon.
9. Our RBI program started right before
10. commissioning, and we made our presentation to the
11. board for them to review our program and provide
12. their technical comments, which we did, and it is
13. still in place now.
14. Before I go on to perhaps where we
15. are in the RBI program, I would like to make
16. mention that currently, the site is not in
17. production, and this is a result of an incident
18. that occurred in September.
19. I think everyone in this room knows
20. the severity of the incident, the nature of the
21. incident, and it is still currently under
22. investigation. And when the results come out,
23. we'll be happy to share those findings with the
24. members.
25. So effective September 7th, we have

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1. been down and we are still currently not in
2. production. But there are many other parts of the
3. plant that are actually running but not producing
4. product. For instance, the scrubber system's
5. operational. Waste water treatment is
6. operational. Nitrogen is operational. Steam, and
7. so on and so forth. All those are in operation
8. but not producing a particular product.
9. Even though we're not in operation,
10. our RBI program continues. We are still
11. inspecting equipment, whether it's due to a
12. program recommendation from Meridium, or due to
13. some opportunities that we had available because
14. we are down. So that's where we are today.
15. I just want to perhaps ask the board
16. to go to the last page -- the second page,
17. actually, and summarize where we are and what we
18. have completed in 2017.
19. Internal inspections: We have
20. completed 10, not because we required an internal
21. inspection for the equipment, because the
22. equipment became available because we were down.
23. So we took the opportunity to conduct these
24. internal inspections.
25. External inspections: We completed

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1. 315 on vessels and equipment, and 109 circuits on
2. the piping system.
3. For 2018, we anticipate a
4. continuation of our RBI program in the same
5. magnitude and similar quantities of equipment that
6. will be inspected. Since we are down for the
7. foreseeable future, we will anticipate to inspect
8. many more equipment than originally thought.
9. Also, a quick update to the board.
10. Between the date of this report and today, we also
11. inspected about 12 more pieces of equipment: Two
12. tanks and a tank form, two tanks and a wastewater
13. system, two distillation systems, including
14. condensers and reboilers, and two distillation
15. systems without the condensers and the reboilers,
16. and four reactors. So that's in addition to what
17. is inspected as of the date of this report.
18. Also, part of today's update is to
19. provide information on our baseline readings.
20. Last year, we took measurements on a number of
21. equipment to establish baseline thicknesses on the
22. equipment that we have selected to monitor.
23. So if I can ask the board to go to
24. the spreadsheet. I think it's the last page on
25. the report. And you will see some data that we

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1. have collected.
2. This is a representative sample
3. vessel that we did last year, and we concluded
4. with a second round of readings this year.
5. So if I can just direct the board to
6. the -- one, two -- the fourth column from the
7. right, nominal thickness, and then the third
8. column from the right, the first round of
9. readings. And then the second column from the
10. right, the second round of readings. Okay.
11. And there's 20 points on this
12. particular vessel. So after taking a set of
13. readings on the first round back in 2015, that was
14. presented to the board for comment and evaluation
15. and analysis. And I think we felt pretty
16. comfortable with those values compared to the
17. nominal thickness.
18. Part of today's objective is to
19. present round two of this vessel and other vessels
20. that we have selected to monitor. And in April of
21. 2017, we got some additional thickness
22. measurements in the same location because they've
23. been identified. And the results are presented
24. here.
25. Normally, we would stop the

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1. continuing monitoring at this point and not go any
2. further, but because there were some discrepancies
3. that we felt that we were not comfortable with the
4. first round readings compared to the second round
5. readings, we've decided to get another set of data
6. which would be verification, the last column, in
7. August of 2017.
8. What prompted that was thickness
9. measurement .5. There was a significant
10. difference between round two and round one. And
11. also, on the .18, there was a significant
12. difference between round two and round one. So we
13. suspect that one was wrong and perhaps not due to
14. a real thickness loss on the vessel.
15. So thus, we came back and got
16. additional readings on round two. And it confirms
17. our suspicion that the data point was incorrect,
18. and I want to capture this so that the board has
19. some additional confidence that what we claim is
20. correct. We are claiming that our process, as we
21. operate it, is noncorrosive. And we want to
22. continue to demonstrate that belief.
23. Typically, we would stop at this
24. point and not continue with additional monitoring
25. unless there's reason for us to believe there's

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1. corrosion within the system. We probably, at this
2. point, will not stop and continue to get round
3. three numbers and round four numbers and continue
4. to monitor this vessel and other vessels that are
5. representative of our plant and our facility.
6. This is a representation only, and we
7. have dozens and dozens of other vessels with the
8. same data points that we have collected. So it's
9. empirical data from the field; it's data-intensive
10. for perhaps Dr. Hargrove to make some additional
11. comments (verbatim).
12. That is all I have for today at this
13. moment. So I'm open to the board for any
14. questions that may come up.
15. CHAIRMAN MORELOCK: Okay. What
16. comments does the board have?
17. MR. PISCHKE: Do we need a motion to
18. discuss or --
19. CHAIRMAN MORELOCK: Sure, we can do
20. that. But I mean -- yeah. Yeah, a motion to
21. discuss?
22. MR. PISCHKE: Yeah. I move to
23. discuss.
24. CHAIRMAN MORELOCK: Second?
25. MR. FOX: Second.

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1. CHAIRMAN MORELOCK: Okay.
2. MR. BAUGHMAN: Any conflicts?
3. CHAIRMAN MORELOCK: Any conflicts of
4. interest? No. Okay.
5. MR. PISCHKE: I had a question about
6. your -- the data that you just presented. When you
7. discovered, you know, the variations in the data,
8. did you perform a measurement system analysis of
9. your process to determine that the measurement
10. process is adequate enough to -- Level II?
11. MR. ENG: It's ASNT, and we use an
12. outside independent company, TUV. They use a Level
13. II technician, and I would say it is -- we requested
14. that the second set of data is taken from the same
15. instrument with the same calibration by the same
16. technician, if that answers your question.
17. MR. PISCHKE: Kind of.
18. MR. ENG: Kind of. Okay.
19. MR. PISCHKE: I mean, that's
20. obviously making things as consistent as can be. Of
21. course, with the time factor, you don't know, you
22. know, if there was any variation in the equipment or
23. anything like that. Or if that -- if the process
24. itself is capable of being consistent enough. You
25. know.

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1. MR. ENG: The measurement process?
2. MR. PISCHKE: Yes.
3. MR. ENG: I'm not sure how to respond
4. to that, other than we have examples of the
5. measurements provided by TUV, and it has all the
6. necessary information to ensure some degree of
7. accuracy.
8. MR. PISCHKE: I'm just wondering why
9. the variation. Can we explain off the variation?
10. MR. ENG: I would like to say perhaps
11. operator error is one.
12. MR. PISCHKE: That's part of the
13. measurement system analysis.
14. MR. ENG: And thus we review all the
15. data points that go into our database so that we can
16. catch these inconsistencies and then get validation
17. on these differences.
18. But I don't think I answered your
19. question, but that's --
20. MR. PISCHKE: I'm -- no. I'm getting
21. a picture, you know, of the process that you're
22. incorporating. I would recommend evaluating the
23. process a little deeper to understand the variation,
24. so that, moving forward, you know, if there is any
25. variation, you say, yeah, this is why.

1. MR. ENG: Okay.
2. MR. PISCHKE: And owners understand.
3. MR. ENG: Sure.
4. MR. PISCHKE: That's my only
5. recommendation.
6. MR. ROBINSON: Can I make a comment?
7. CHAIRMAN MORELOCK: Yeah. Chip had
8. his hand up.
9. MR. ESKRIDGE: I'm sorry. Open
10. meeting, I thought I'd make a comment.
11. MR. ROBINSON: Please do.
12. MR. ESKRIDGE: When we have these
13. kind of deviations from inspectors, it's not
14. uncommon for us to ask for a reinspection of those
15. locations, if it's operator -- we think it's
16. operator error, especially if it's an external
17. inspection.
18. MR. ROBINSON: And just --
19. MR. BAILEY: Wait, wait. State your
20. name for the record.
21. THE REPORTER: Yes, please.
22. MR. ESKRIDGE: Chip Eskridge.
23. MR. ROBINSON: And just for your own
24. knowledge, repeatability by using the same machine
25. technically isn't required. That's the whole

1. purpose of the process.
2. Just so you know, when that
3. particular inspection method is applied, the
4. set-up is more important than the equipment. And
5. when I say that, you use known calibration blocks,
6. known test standards, and you record that
7. information so if there is a variation, you can go
8. back and repeat the scenario.
9. It's -- and it sounds like to me --
10. forgive me. It sounds like to me you had a big
11. length and -- when you took the measurement and
12. then realized that you had a deviation. You may
13. want to get a little proactive in real-time in
14. doing that. Okay?
15. Again, if you have any questions,
16. point back to the Chief to direct you to Section 5
17. or question -- don't be afraid to question that
18. Level II technician, because that's a big
19. deviation.
20. MR. PISCHKE: And just to expand
21. on --
22. MR. ROBINSON: Please.
23. MR. PISCHKE: -- his point, is, the
24. more you can change the variables and get consistent
25. measurements, the more you've proven your process.

1. MR. ROBINSON: Absolutely.
2. MR. PISCHKE: And so that will tell
3. you where your variation is, whether it be the
4. operator or the equipment or the environment, you
5. know, the temperatures at which you're measuring,
6. things like that. Any variation -- that will point
7. you in the right direction.
8. MR. ROBINSON: Yes, sir.
9. MR. ENG: Just to comment on this
10. whole discussion here. We took the measurements in
11. 2015 as the first set of measurements. We assumed
12. those to be correct to start out, right?
13. So we took the second set in April of
14. 2017 and realized there were two points that were
15. inconsistent.
16. MR. ROBINSON: Yes, sir.
17. MR. ENG: Okay. And what we noticed
18. was that if you go to the -- to this photo here --
19. MR. ROBINSON: Yes, sir.
20. MR. ENG: -- right? There are two
21. points underneath the structure that was difficult
22. to access, we realized later on. And therefore,
23. there were some variations on the angle of the probe
24. and perhaps caused this -- that's why we went back
25. with our supervision to ensure that it's consistent.

1. MR. ROBINSON: Yes, sir. And that's
2. understandable.
3. MR. PISCHKE: And if you evaluate
4. that, then perhaps maybe you might want to look at a
5. different type of probe that is a little more
6. forgiving --
7. MR. ENG: Yeah, yeah. Sure.
8. MR. PISCHKE: -- in the angle and
9. things like that. That's just a suggestion.
10. MR. ENG: Well, actually, we may take
11. a different location, so it's easier to get to.
12. MR. PISCHKE: Sure.
13. MR. ENG: Understood.
14. MR. ROBINSON: One other observation,
15. Mr. Eng. Very nice report.
16. MR. PISCHKE: Yeah.
17. MR. ROBINSON: If possible, could you
18. add the Tennessee number, if assigned to that
19. particular vessel?
20. MR. ENG: Sure.
21. MR. ROBINSON: That way, we could
22. track it in our database as well.
23. MR. ENG: No problem.
24. CHAIRMAN MORELOCK: Richard, on the
25. column, "Nominal thickness," where did that value

1. come from? Was that a new one --
2. MR. ENG: The engineer gave it to me.
3. I suspect it's from the material and grader
4. specification.
5. CHAIRMAN MORELOCK: Okay.
6. MR. ENG: Published information.
7. CHAIRMAN MORELOCK: Because, you
8. know, I don't know -- I'm not going to belabor the
9. point, but I mean, by the time you -- if it's just a
10. published value, not a measured value, it -- you
11. know, with plate undertolerance and all that in the
12. code --
13. MR. ENG: Yeah. Yeah.
14. CHAIRMAN MORELOCK: -- I don't --
15. that value's really not very meaningful to you until
16. you actually measure it.
17. MR. ENG: That's correct. Yeah.
18. CHAIRMAN MORELOCK: So --
19. MR. ENG: We wanted to make sure we
20. went three times nominal --
21. CHAIRMAN MORELOCK: Yeah.
22. MR. ENG: -- with something like
23. that.
24. CHAIRMAN MORELOCK: Yeah. I think --
25. MR. ENG: So we'll delete that next

1. time. We'll add the tag number next time.
2. MR. ROBINSON: Yes, sir.
3. CHAIRMAN MORELOCK: Any other
4. questions? Okay.
5. MR. ROBINSON: Just one last one. I
6. noticed on all the UT reports, you add a .5 as
7. nominal thickness.
8. MR. ENG: All the UT reports?
9. MR. ROBINSON: Yes. It was .5.
10. MR. ENG: Oh, okay.
11. MR. ROBINSON: It probably would be
12. beneficial to put the actual Tmin on that somewhere.
13. I saw Tmin in your column on your spreadsheet.
14. MR. ENG: Uh-huh.
15. MR. ROBINSON: But it was almost like
16. the tester didn't know exactly what he was looking
17. for.
18. MR. ENG: Okay. I'll make a note of
19. that, sir.
20. CHAIRMAN MORELOCK: So are you
21. calculating Tmin or is somebody calculating that for
22. you?
23. MR. ENG: Somebody else is
24. calculating this Tmin, and there's another Tmin
25. calculated directly from the Meridium software.

1. CHAIRMAN MORELOCK: Right. Right.
2. But just know that that has issues.
3. MR. ENG: Okay. Would you like to --
4. CHAIRMAN MORELOCK: Yeah. They --
5. well, they only recognize two stress tables.
6. MR. ENG: Oh, in Meridium. Yes, I --
7. CHAIRMAN MORELOCK: Yes.
8. MR. ENG: Yeah. Yes. I recall.
9. CHAIRMAN MORELOCK: And so -- and
10. every calculation they do is based off of a
11. cylinder, so it's got issues. I wouldn't hang my
12. hat on that one.
13. MR. ENG: We don't.
14. CHAIRMAN MORELOCK: Okay.
15. MR. ENG: Okay.
16. CHAIRMAN MORELOCK: So it is an
17. excellent report, and I know what your situation is
18. right now. But as you move forward, you know, we
19. would like to see ridge ranking, damage
20. mechanisms --
21. MR. ENG: Sure.
22. CHAIRMAN MORELOCK: -- all that
23. information as you come back with your report when
24. the facility is operating, and just to kind of give
25. us an idea. Especially if you're going to try to

1. state that the process is noncorrosive, you're going
2. to need a little more ammunition to make that
3. happen.
4. MR. ENG: Yeah. That's what we're
5. trying to demonstrate longterm.
6. CHAIRMAN MORELOCK: Okay.
7. MR. ENG: Yeah.
8. CHAIRMAN MORELOCK: That's all I
9. have. Anything else?
10. Do I have a motion to accept Wacker's
11. report and give them permission to continue their
12. RBI program?
13. MR. PISCHKE: So moved.
14. MR. BAUGHMAN: Second.
15. CHAIRMAN MORELOCK: Okay. Any more
16. discussion? All in favor, say, "aye."
17. MR. PISCHKE: Aye.
18. MR. BAUGHMAN: Aye.
19. MR. BOWERS: Aye.
20. MR. FOX: Aye.
21. MR. HARGROVE: Aye.
22. CHAIRMAN MORELOCK: Opposed?
23. Abstentions? Not voting? Richard, thank you for
24. your report.
25. MR. ENG: Thank you.

1. CHAIRMAN MORELOCK: Our next item is
2. 17-19. West Tennessee Healthcare is requesting a
3. variance for four high-pressure boilers.
4. Just come forward and introduce
5. yourselves and present your manual.
6. MR. BUTLER: Good morning.
7. MR. BAUGHMAN: Good morning.
8. MR. ROBINSON: Good morning, sir.
9. MR. BUTLER: My name is Larry Butler.
10. I'm the executive director of facilities at
11. Jackson-Madison County General Hospital and West
12. Tennessee Healthcare.
13. MR. JONES: I'm Mark Jones. I'm the
14. plant operations manager at Jackson-Madison Count
15. General Hospital.
16. MR. BUTLER: We would like to thank
17. you for allowing us to come here before the board.
18. Just a little back story. We have been operating
19. under a boiler attendant variance since our new
20. central energy plant was commissioned back in 2006,
21. at what time we had a Hawk ISC control system.
22. Earlier this year, Mark was meeting
23. with a Cleaver-Brooks representative and he'd
24. informed us that our ISE system is day -- or
25. sunsetting, or about to not be able to get any

1. parts. So at which time we needed to upgrade --
2. update our control system.
3. Being a public entity as we are,
4. we're owned by the Jackson -- City of Jackson and
5. Madison County. It takes us a while to get
6. funding, so in February -- our fiscal year ends in
7. June. And so consequently, at that time we were
8. in the budget process, so Mark obtained pricing
9. from Cleaver-Brooks Power Equipment out of
10. Memphis. And so we were approved in late June.
11. And so frankly, we started the
12. process in July, recognizing that since we were
13. sunsetting on our controls and we wanted to
14. maintain continuity in operations (verbatim).
15. So we've just recently completed the
16. upgrade, and we -- since we have changed the
17. equipment, it is obvious that we need to update
18. our variance. And so that is why we appear before
19. you, and again, thank you for that.
20. MR. JONES: We began our upgrade --
21. October the 9th -- is when we started the upgrade of
22. the controls. We reverted to the 20-minute rule at
23. that time, and we're currently still on the
24. 20-minute rule.
25. We upgraded to the Hawk 4000 system.

1. If has been completely installed. We are
2. currently using it. Although we're on the
3. 20-minute rule, we're using all the features. We
4. have a remote station.
5. We also have a Johnson Controls
6. Metasys system that integrates to this. At the
7. same time the remote station is alerted, it pages
8. three on-call people, as well as myself. There's
9. another plant operations manager as well. He's
10. contacted as well; all simultaneously.
11. CHAIRMAN MORELOCK: All right. Now,
12. do I have a motion to discuss?
13. MR. BAUGHMAN: So moved.
14. MR. PISCHKE: Second.
15. CHAIRMAN MORELOCK: All right.
16. MR. BAILEY: Any conflicts?
17. MR. HARGROVE: Conflict of interest?
18. CHAIRMAN MORELOCK: Any conflicts of
19. interest? All right. Thank you. All right. So
20. all in favor, say, "aye."
21. MR. PISCHKE: Aye.
22. MR. HARGROVE: Aye.
23. MR. BAUGHMAN: Aye.
24. MR. BOWERS: Aye.
25. MR. FOX: Aye.

1. CHAIRMAN MORELOCK: Opposed?
2. Abstentions? Not voting? All right.
3. The floor is open for comments and
4. questions.
5. MR. HARGROVE: What's the age of all
6. four of those -- or when they were manufactured?
7. MR. JONES: 2006.
8. MR. HARGROVE: All of them?
9. MR. JONES: The boilers?
10. MR. HARGROVE: All of them.
11. MR. JONES: Yes, sir. That central
12. energy plant was built all at one time.
13. MR. HARGROVE: All at one time.
14. MR. JONES: Yes, sir. Prior to that,
15. we were on a -- we had another central energy plant
16. that had some boilers that were 30-something years
17. old. They as well were on a variance that were
18. granted to us in '99, and then we built this new
19. plant.
20. We reverted to the 20-minute rule
21. when the new plant was built in '06. We were
22. granted the variance, I think, in early '07 on
23. this plant, but they're '06 model boilers. Four
24. 600-horse Cleaver-Brooks boilers.
25. MR. HARGROVE: So make sure that's

1. documented.
2. MR. JONES: Uh-huh.
3. CHAIRMAN MORELOCK: Yes, Mr. Pischke?
4. MR. PISCHKE: The question I had is:
5. The difference from the previous variance, other
6. than the equipment itself. Is there any
7. procedural -- major procedural changes that you've
8. made since --
9. MR. JONES: No, sir. The boiler
10. room's still in the same place, remote station's in
11. the same place. No changes to the boiler
12. themselves; just the control systems.
13. CHAIRMAN MORELOCK: So if I can build
14. off of that -- so would this variance -- instead of
15. being a new one, would this be a modification to the
16. existing variance?
17. MR. JONES: I'm not sure.
18. MR. ROBINSON: Because it was
19. considered to be a software change, we considered to
20. bring it before the board for approval --
21. CHAIRMAN MORELOCK: Right.
22. MR. ROBINSON: -- as an equipment
23. change.
24. CHAIRMAN MORELOCK: Okay. But is
25. that new or is that a modified?

1. MR. CHAPMAN: New. New.
2. CHAIRMAN MORELOCK: Huh?
3. MR. CHAPMAN: New.
4. CHAIRMAN MORELOCK: New? Okay.
5. MR. CHAPMAN: Yeah.
6. CHAIRMAN MORELOCK: I just wanted to
7. clarify that.
8. MR. CHAPMAN: Yes.
9. CHAIRMAN MORELOCK: Yeah. So go
10. ahead. Sorry.
11. MR. PISCHKE: No, you -- that's --
12. the point I had was this is not completely new.
13. CHAIRMAN MORELOCK: Right.
14. MR. PISCHKE: It's an existing system
15. that has been modified.
16. MR. CHAPMAN: Yeah.
17. CHAIRMAN MORELOCK: Okay. Other
18. questions?
19. MR. BAUGHMAN: Under Appendix A, the
20. boiler system data. You mentioned they're
21. 600-horse, but there's no indication on the boiler
22. system data that these are 600-horse. There's no
23. model numbers -- well, I take that back. You've got
24. the GBI 200-600 150 --
25. MR. JONES: Yeah.

1. MR. BAUGHMAN: So maximum input of
2. all the units, 24,000,494, but it's not maxed of
3. all -- in other words, is that per each unit?
4. MR. JONES: I think that's per each.
5. MR. BUTLER: Per each.
6. MR. BAUGHMAN: Okay. I just want to
7. have that clarification. And the same thing with
8. the maximum output. It doesn't show any figures on
9. that for an output. We do have the serial numbers
10. identified for each one, and Tennessee numbers.
11. What type of feedwater system? We
12. have no data on whether you've got a DA system --
13. MR. JONES: We do have a DA.
14. MR. BAUGHMAN: -- which I'm
15. anticipating you do.
16. MR. JONES: We do.
17. MR. BAUGHMAN: We'd like to see it
18. included --
19. MR. JONES: Okay.
20. MR. BAUGHMAN: -- in the information.
21. The ICS -- I thought it was interesting -- a
22. previous discussion earlier, the boilers had the ICS
23. on them. They're obviously being "obsoleted" out
24. and new systems being put in place.
25. Is any of this monitoring via

1. web-based?
2. MR. JONES: The remote station is
3. not. The remote station is hardwired. The
4. contacting -- once the remote station is notified,
5. they turn it off.
6. They contact the boiler attendant via
7. radio or phone. The boiler attendant is notified,
8. though, via web-based through the Metasys system,
9. as well as a back up.
10. MR. BAUGHMAN: Okay.
11. MR. JONES: So he most of the time
12. knows it before they call him.
13. MR. BAUGHMAN: Very good. So there's
14. an e-stop at a point of egress or points of egress
15. at the boiler room also?
16. MR. JONES: Yeah. There's one on --
17. outside of the building.
18. MR. BAUGHMAN: Do they shut all four
19. boilers down?
20. MR. JONES: Yes.
21. MR. BAUGHMAN: Okay.
22. CHAIRMAN MORELOCK: Any other
23. questions, comments?
24. I just have a few.
25. MR. BUTLER: Okay.

1. CHAIRMAN MORELOCK: On Page 3, the
2. first paragraph, the last sentence, just a
3. consistency in your terminology that the boiler
4. operator should be boiler attendant, because the
5. rest of your manual says boiler attendant.
6. MR. JONES: Okay.
7. CHAIRMAN MORELOCK: On Page 5, as
8. we've noted on the other manuals, as well, Item 2 at
9. the bottom of Page 5. If the system is not
10. functioning properly, the boiler attendant shall
11. attend the boiler, and then add, per rule
12. 0800-03-03-.08(11), until the problem is corrected,
13. so it'll revert back to the 20-minute rule.
14. On Page 6 -- again, this is just
15. terminology here. Your wording is good. Just on
16. Item 4, under emergency duties, you say security
17. officer, and that's who the remote station
18. personnel is, but you probably ought to put remote
19. station personnel or security officer/remote
20. station personnel so your terminology is correct.
21. And the same on Item 6. If the
22. security officer is unable to communicate with the
23. boiler attendant, you could put either remote
24. station personnel or security officer/remote
25. station personnel, just for clarity.

1. Your emergency procedures on
2. Page 8 -- and it is not highlighted or tabbed for
3. ease of finding it in the event of an emergency.
4. I know you have a placard out there. I know that.
5. Go ahead and highlight that in your
6. manual as well. Who provides training to the
7. boiler attendants?
8. MR. JONES: We do.
9. CHAIRMAN MORELOCK: Okay.
10. MR. JONES: Plant operations.
11. MR. BUTLER: Plant operations.
12. CHAIRMAN MORELOCK: Make sure that's
13. in the manual and that's clarified as well. I mean,
14. you've got the remote station training in there.
15. MR. JONES: Yeah.
16. CHAIRMAN MORELOCK: And then in
17. Appendix G for job descriptions, I don't see any job
18. descriptions for the boiler attendant duties for
19. plant operation manager and maintenance mechanics
20. one, two, and three. If they're the serving the
21. boiler attendant, you need to note that in their job
22. descriptions. And that's all the comments I have.
23. Yes.
24. MR. PISCHKE: I have another one.
25. The security department -- that's staffed by

1. security department, are these full-time employees
2. or are these outsourced (verbatim)?
3. MR. JONES: No. They're full-time
4. employees.
5. MR. PISCHKE: Okay.
6. MR. JONES: Around the clock.
7. MR. PISCHKE: Okay.
8. CHAIRMAN MORELOCK: Any other
9. questions? Okay.
10. MR. BAUGHMAN: And just to --
11. CHAIRMAN MORELOCK: Go ahead.
12. MR. BAUGHMAN: Just to reiterate,
13. under the equipment description for the variance, I
14. know I just asked about the web-based, but it shows
15. that -- the equipment description shows, for one,
16. under the Hawk 4000, a 10-inch touchscreen with
17. integrated web server and password-protected to
18. prevent unauthorized access.
19. Who has the password?
20. MR. JONES: Plant operations manager.
21. That'd be myself and the other manager.
22. MR. BAUGHMAN: And you do have
23. that --
24. MR. JONES: I do have it.
25. MR. BAUGHMAN: Super. But then on

1. down, it still lists the personal computer, the
2. Johnson's Control Metasys interface.
3. MR. JONES: Yes, sir.
4. MR. BAUGHMAN: And you say that is
5. used only for what purpose?
6. MR. JONES: That's only used --
7. really used as a backup. That's what pages the
8. on-call or on-duty boiler attendant, and it pages
9. myself and the other plant operations manager.
10. MR. BAUGHMAN: And how is it used as
11. a backup? What's the primary?
12. MR. JONES: When the Hawk goes into
13. alarm -- the Hawk is integrated to this system.
14. When the Hawk goes in alarm, it not only alarms at
15. the remote station, it sends an alarm through the
16. Metasys system and it sends out a page, like a group
17. page to three on-call boiler attendants, as well as
18. myself and the other manager. And that's 24 hours a
19. day.
20. CHAIRMAN MORELOCK: So it's dual
21. notification?
22. MR. JONES: It is. It's just kind
23. of -- but we use it as a backup. Most of the time,
24. when the remote station personnel call him, he's
25. already got it, because it actually reads out on an

1. Alpha pager. It'll say, boiler one, high water
2. alarm.
3. MR. BAUGHMAN: Uh-huh.
4. MR. JONES: Now, the remote
5. station -- he does not know what the alarm is. He
6. knows it went into alarm. He's got an audible and a
7. light and he turns it off, but he doesn't know if
8. it's high or low. But our guy knows by the time he
9. gets there, I'm dealing with high, low; I'm dealing
10. with something.
11. MR. BAUGHMAN: Very good. Thank you.
12. MR. JONES: Uh-huh. Yes, sir.
13. CHAIRMAN MORELOCK: Any other
14. questions?
15. MR. BAUGHMAN: Are you operating one
16. or two DAs?
17. MR. JONES: Just one.
18. MR. BAUGHMAN: Okay.
19. MR. JONES: We have a -- in the site
20. plan, you'll see a two -- the second DA there.
21. MR. BAUGHMAN: Yes.
22. MR. JONES: We're actually using that
23. just as a flash tank. We're just flashing our
24. condensate there and pumping it over.
25. MR. BAUGHMAN: But it's still a

1. pressure code vessel?
2. MR. JONES: It is.
3. MR. BAUGHMAN: Okay. Yeah. I would
4. like that in the equipment description, not that
5. it's mandatory --
6. MR. JONES: Okay.
7. MR. BAUGHMAN: -- as part of the
8. variance, but since they're both on the site plan
9. and they're both identified, not as a flash tank,
10. but as a --
11. MR. JONES: As a DA.
12. MR. BAUGHMAN: -- deaerator.
13. MR. JONES: It's actually a DA.
14. We're just using it as flash.
15. MR. BAUGHMAN: Okay. Thank you.
16. MR. JONES: Uh-huh.
17. CHAIRMAN MORELOCK: All right.
18. Anything else? All right. Then do I have a motion
19. for contingent approval of this variance based upon
20. revisions to the manual to incorporate Tennessee
21. Board's comments and a successful site inspection by
22. the Chief Inspector?
23. MR. PISCHKE: So moved.
24. MR. BAUGHMAN: Second.
25. CHAIRMAN MORELOCK: We have a motion.

1. Second? I have a second. Any comments? I'm going
2. to call the question. All in favor, say, "aye."
3. MR. PISCHKE: Aye.
4. MR. HARGROVE: Aye.
5. MR. BAUGHMAN: Aye.
6. MR. BOWERS: Aye.
7. MR. FOX: Aye.
8. CHAIRMAN MORELOCK: Opposed?
9. Abstentions? Not voting? Gentlemen, you have a
10. contingently approved variance.
11. MR. JONES: Thank you for your time.
12. MR. BUTLER: Thank you very much.
13. CHAIRMAN MORELOCK: Thank you. That
14. concludes our new business. We'll move now into
15. Item 9, which is open discussion items.
16. Our first item is status of the 2018
17. Tennessee Boiler Safety Conference.
18. MS. RHONE: Deborah Rhone. Okay.
19. Yes. Regarding the 2018 Boiler Safety Conference,
20. we have received approval to host that conference,
21. which this year, it will include the deputy and
22. special inspectors via the insurance companies.
23. MR. BAUGHMAN: Super.
24. MS. RHONE: And planning will begin
25. next quarter.

1. CHAIRMAN MORELOCK: Oh, excellent.
2. MR. BAUGHMAN: Fantastic.
3. MS. RHONE: So okay. All right.
4. Thank you.
5. MR. ESKRIDGE: Quick question, when
6. is that conference?
7. MS. RHONE: It's in the fall.
8. MR. ESKRIDGE: Has it --
9. MS. RHONE: We have a tentative date
10. in September. Yes, it's usually the third week in
11. September.
12. MR. ESKRIDGE: How many days is it?
13. MS. RHONE: It'll be two and a half
14. days for the inspectors. We usually host some
15. training for our state inspectors; the first portion
16. of it.
17. MR. ESKRIDGE: And maybe I should
18. have asked first. Is it open to the public?
19. MS. RHONE: Yes.
20. MR. ESKRIDGE: Okay. Good. Thank
21. you.
22. MS. RHONE: Okay. All right. Thank
23. you.
24. CHAIRMAN MORELOCK: I will add that
25. it's a very good conference.

1. MR. ESKRIDGE: Yeah.
 2. MR. PISCHKE: Yes.
 3. CHAIRMAN MORELOCK: It really is.
 4. MR. ESKRIDGE: Very good. In
 5. Nashville?
 6. CHAIRMAN MORELOCK: That's very
 7. exciting.
 8. MR. ESKRIDGE: Nashville?
 9. MS. RHONE: Yes. Nashville.
 10. CHAIRMAN MORELOCK: Does anybody have
 11. any more questions? All right. Thank you very
 12. much, Deborah. That's a great report. Good, great
 13. news.
 14. Our next item is update on
 15. administering the National Board Commission Exam,
 16. and the board members have a handout for that.
 17. And has this been revised slightly from what
 18. was -- the red line copy that was sent in?
 19. MS. JEFFERSON: It's been revised
 20. several times.
 21. CHAIRMAN MORELOCK: Okay.
 22. MS. JEFFERSON: Yes, it has. It has.
 23. As we all know, the boiler law dates back to the
 24. 1970s, so this was the department's attempt to clean
 25. up the law --

1. CHAIRMAN MORELOCK: Okay.
 2. MS. JEFFERSON: -- and to make some
 3. clarifications in the law, because things have
 4. changed since then. And with the board's help,
 5. along with the Boiler Unit, the Chief and the deputy
 6. assistants, we were able to modify Tennessee Code
 7. Annotated Section 68-122-109, subsection A.
 8. And the current section will be
 9. deleted and it will be replaced with this language
 10. that has been proposed by the department. This is
 11. the current proposal.
 12. CHAIRMAN MORELOCK: Okay.
 13. MS. JEFFERSON: But even this could
 14. change.
 15. CHAIRMAN MORELOCK: Okay.
 16. MS. JEFFERSON: This is still -- this
 17. is not final. It's just a draft.
 18. CHAIRMAN MORELOCK: Okay.
 19. MS. JEFFERSON: But this is what the
 20. department, along with you-all's assistance has
 21. brought us to. Again, the objective was to clean it
 22. up and just to clarify. And if you take a look at
 23. subsection A, it specifies that the examination for
 24. chief, deputy, or special inspectors -- of course,
 25. the deputy inspectors are the state inspectors and

1. special inspectors are insurance inspectors -- must
 2. be administered by the National Board -- I'll just
 3. abbreviate that -- National Board member
 4. jurisdiction, and that's Tennessee, in the event
 5. that we have a chief (verbatim). And you all may
 6. remember previously when we didn't have a chief, we
 7. couldn't administer the exam.
 8. CHAIRMAN MORELOCK: Right.
 9. MS. JEFFERSON: So that's just
 10. clarity there. In the event that we don't have a
 11. chief, another alternative would be the National
 12. Board -- during the last day of the in-service
 13. commission, the two-week course -- and we just had
 14. one of our inspectors to actually attend that
 15. course, and that was Justin. What's Justin's last
 16. name?
 17. MR. CHAPMAN: Justin Simpson.
 18. MS. JEFFERSON: Justin Simpson. He
 19. actually attended that course. So that's another
 20. alternative for us. The next alternative is the
 21. on-demand provider approved by the National Board.
 22. And an example of that is H&R Block. That's the
 23. current.
 24. And the final is the other testing
 25. methods that are approved by the National Board in

1. the future. So that's a catch-all clause, because
 2. we understand that something else, something more
 3. innovative may occur in future years. So we just
 4. wanted to have a provision for that.
 5. CHAIRMAN MORELOCK: Very good.
 6. MS. JEFFERSON: And that's basically
 7. it.
 8. CHAIRMAN MORELOCK: Well, and just
 9. for the audience, the visitors -- the law -- well,
 10. it still reads because it's not been amended -- is
 11. that the commissioning exam would be held here and
 12. it would be proctored by two board members, and it
 13. just doesn't happen that way anymore. And so we
 14. needed to bring it into the present day. And so
 15. that's -- this was very good wording.
 16. MS. JEFFERSON: It is. And with the
 17. help of our legislative liaisons, they're still
 18. working. And of course none of this would start
 19. until the first of next year.
 20. CHAIRMAN MORELOCK: Okay.
 21. MS. JEFFERSON: That's when the
 22. legislation -- that's when the legislature goes into
 23. session. So we'll keep you all posted.
 24. CHAIRMAN MORELOCK: Great. It's a
 25. great report.

1. MS. JEFFERSON: Great. And also, I
 2. just wanted to --
 3. MR. BAUGHMAN: Please -- I was going
 4. to say, even if passed, it probably would not go
 5. into effect until July 1.
 6. CHAIRMAN MORELOCK: Okay.
 7. MS. JEFFERSON: Yes. That's correct.
 8. So --
 9. MR. PISCHKE: Yeah. I was going to
 10. say, that's pretty soon.
 11. CHAIRMAN MORELOCK: Yeah.
 12. MS. JEFFERSON: Yes. I'm sorry.
 13. Yes. The -- that's just the legislative process.
 14. MR. BAUGHMAN: Right.
 15. CHAIRMAN MORELOCK: Right.
 16. MS. JEFFERSON: Yes. Okay. And I
 17. just want to thank the board this year. I feel like
 18. we've had a really good productive 2017. I just
 19. feel like it's getting better and better every year.
 20. So I wanted to especially thank the board,
 21. especially our new members, everyone that has
 22. stepped up to the plate, and you are so thorough.
 23. That's the one thing that I hear.
 24. You all take time to actually
 25. evaluate all the different -- every time a company

1. recognition, but he does so much -- he does so
 2. much for the board. But not only this board, but
 3. he's also the legal counsel for our Prevailing
 4. Wage Commission, as well as our Elevator and
 5. Amusement Device Safety Board.
 6. So I just wanted to thank all of you
 7. for what you do and also our participants in the
 8. audience. Just want to thank everybody for what
 9. they do. And I feel like we had a really
 10. successful 2017, so I'm looking forward to 2018.
 11. MR. PISCHKE: Thank you.
 12. CHAIRMAN MORELOCK: Thank you. Okay.
 13. We have one more item to discuss. It's a new item
 14. that we just added this morning during the approval
 15. of the agenda. So Mr. Eskridge has a State Special
 16. proposal that he would like to just introduce as
 17. discussion, and then he will provide all the work to
 18. develop an item that will eventually become a voted
 19. item on a future Tennessee Board agenda. So
 20. gentlemen, you have the floor.
 21. MR. ESKRIDGE: All right,
 22. Mr. Chairman, members, thanks for granting us time
 23. to discuss the initial steps of the State Special.
 24. I'm Chip Eskridge. I'm a consultant
 25. for Dow Chemical in this process. With me is

1. presents a variance, you all take the time to
 2. actually ask the questions. You actually help
 3. them to get what they need so that they can have,
 4. you know, their variance, and it's proper.
 5. And also, Eugene and Sam, they've
 6. done so much work as far as the variance process
 7. is concerned, because they've taken all of those
 8. old documents that we had on file. And I know
 9. they've converted those into an electronic form
 10. and they actually know what variances we have.
 11. And you've listened to Eugene's report as to
 12. what's current, what's pending, and that comes a
 13. long way, because we had a discussion previously
 14. as to what -- what's really pending within the
 15. department, within the unit. And we couldn't
 16. really say with clarification. So that -- that's
 17. what they've brought.
 18. And so I wanted to especially
 19. acknowledge them, as well as Deborah for what she
 20. does with the administrative staff and the entire
 21. administrative staff. They're going to be really
 22. busy preparing for the conference next year, and a
 23. lot of work goes into that.
 24. And also Dan, he's always kind of
 25. quiet. He probably doesn't even like to have that

1. Brian Pauley, who's a project manager in
 2. Knoxville, Tennessee that owns this project, and
 3. also Wes Byrd, with Charleston, West Virginia,
 4. who's engineering support for Dow Chemical.
 5. What we have is a process in
 6. Knoxville that's near, you know, residential or a
 7. populated area, and Dow Chemical goes through
 8. extra layers of safety analysis in order to
 9. determine, you know, their process there in
 10. Knoxville is safe.
 11. And through a PHA process (verbatim),
 12. which is a process safety analysis, they've
 13. identified several layers of protection they have
 14. on some reactors they have that they operate,
 15. which are exothermic.
 16. And "exothermic" is a term in a
 17. chemical reaction where, as a reaction occurs, it
 18. gives off heat and it actually drives the reaction
 19. even faster and faster and faster.
 20. So in this process, besides some of
 21. the syllogic (phonetic) they have, which is safety
 22. interlocks, they've identified one other layer of
 23. protection, which is, like, six layers deep. It's
 24. like, you know, a sixth thing that they would
 25. reach for, is to actually inject inhibitor into

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1. the reactor to stop the reaction (verbatim).
2. And the reaction's not that fast.
3. It's a polymerization reaction, but it does take,
4. what I understand, you know, maybe several days
5. for it to get unmanageable.
6. But it's a way of, kind of, like
7. throwing water on the fire. And that's what --
8. this vessel that we're asking for a State Special
9. is a vessel -- and it's a system, actually. It's
10. not just a vessel. It's a system that's on a cart
11. that's made by a German company that has this
12. technology -- this type of technology.
13. And so the inhibitor is what's
14. referred to as PTZ, but it's -- again, it's just a
15. chemical that actually can stop the reaction.
16. Dow has purchased several small ones
17. under five cubic feet, that they will use in --
18. for rail cars and other areas of the plant. But
19. at the reactor itself, they need a 500-liter
20. vessel, which is about 132 gallons.
21. The vessel itself contains the PTZ,
22. and it's injected into the reactor when they need
23. to, you know, go to this sixth layer of
24. protection, which is not foreseen, really, to need
25. to go this deep. But it's injected -- we use

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1. compressed air and nitrogen that are in bottles on
2. the cart.
3. The reason that we feel like a State
4. Special is warranted is the company that's
5. actually inspecting the vessel and certifying this
6. system is TUV, which we see it as T-U-V. You
7. always see it in this country as T-U-V, but they
8. go by "toof".
9. TUV is a big insurance agency in
10. Europe. They're like a Hartford, but they do more
11. than just vessel -- like shop inspections.
12. They're also like UL. They certify things at all
13. levels. In this case, the trailer itself, which
14. we had -- we'd emailed the Chief -- don't know if
15. you had got it. It's on a cart that's pulled
16. around, because the reaction is slow enough. They
17. have time to hook up the equipment.
18. But this system has been certified by
19. TUV. And so not only have they done the design
20. calculations to the German code for the vessel,
21. they've also certified the delivery of the
22. chemical in there. So it's kind of like a
23. proprietary system, much like a fire extinguisher
24. might have a container and a nozzle. It's not
25. warranted anymore if you start changing out

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1. components on this system.
2. Right now, they have a manual process
3. of injecting this PTZ into the reactor if anything
4. occurred, again. So they have a way of more
5. labor -- labor-intensive of charging a drum and
6. pumping it in.
7. So you've got pumps and you've got
8. electricity, so we feel like injecting it with
9. compressed air. Actually, it's -- I was told,
10. actually it's not compressed air. It's 92 percent
11. nitrogen, 8 percent oxygen, just to keep it on the
12. lean side so you're not actually adding a
13. combustion air into a reactor (verbatim).
14. So when I looked at the Tennessee
15. requirements for State Special, I felt like this
16. fell into that where we're building something,
17. what we feel like is a -- we're purchasing
18. something equivalent to an ASME vessel. And
19. familiar with maybe how other jurisdictions
20. operate, we wanted to get here to get some
21. guidance on what kind of documentation you would
22. like for us to submit within 45 days.
23. We feel a drawing with calculation is
24. appropriate, but you know, we didn't know if there
25. was any more guidance like welding procedures,

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1. MTRs, hydro-test reports, anything else that board
2. members would want to see so that we could make a
3. more informative presentation in the March
4. meeting.
5. CHAIRMAN MORELOCK: Any comments?
6. MR. HARGROVE: I would say if this is
7. an emerging or innovative technology that has just
8. been introduced within the state, that you provide
9. documentation, at least from a technical or
10. engineering perspective, the impact of the
11. technology.
12. You know, not a thesis or anything,
13. but if it's German technology, I think that would
14. be good information to know.
15. CHAIRMAN MORELOCK: What's going to
16. benefit you the most is you need to show equivalency
17. to ASME code. So if you can run a calculation to
18. show that this vessel satisfies ASME code,
19. Section VIII, Division 1 -- or 2, if you choose, but
20. if you go the Division 2 route, you're going to have
21. to do a lot more paperwork.
22. MR. ESKRIDGE: Right.
23. CHAIRMAN MORELOCK: I would recommend
24. Section 1. Then -- because if you read through our
25. rules --

1. MR. PISCHKE: Div 1.
 2. MR. ESKRIDGE: Div 1.
 3. CHAIRMAN MORELOCK: Div 1, I'm sorry.
 4. MR. PISCHKE: Not section. We don't
 5. want --
 6. CHAIRMAN MORELOCK: But our rules say
 7. that, as under the construction standards, that
 8. pressure equipment in Tennessee shall be built to
 9. ASME code. And so the Special will allow you --
 10. what you're approaching the board with. So if you
 11. show equivalency that this vessel is safe per ASME
 12. code calculations, that'll go a long way toward
 13. getting it approved as a State Special.
 14. MR. ESKRIDGE: Yeah. And --
 15. CHAIRMAN MORELOCK: And so your MTRs,
 16. your thicknesses -- so we can take all that data,
 17. compare that to what's in the calculations, make
 18. sure everything lines up; it'll be a better process
 19. for you.
 20. MR. ESKRIDGE: All right. Some
 21. things I've done preliminarily: I've run the
 22. calculation. And the vessel's a quarter-inch thick.
 23. And Div 1 would require a .18.
 24. CHAIRMAN MORELOCK: Okay.
 25. MR. ESKRIDGE: So we meet the

1. thickness. They hydro'd it to 1.43. Section VIII
 2. is 1.3.
 3. CHAIRMAN MORELOCK: Correct.
 4. MR. ESKRIDGE: And they did what
 5. would be equivalent of RT2. They x-rayed
 6. 100 percent, the long seam, and they spot-x-rayed
 7. the circumferential seam on the heads.
 8. But then we started getting down --
 9. besides that kind of low-hanging fruit, we get
 10. down to welding procedures. All right. We were
 11. going to ask for welding procedures, but there --
 12. what would be -- their essential variables may be
 13. something different than what Section IX essential
 14. variables are. But yet they are certified welding
 15. procedures by TUV.
 16. CHAIRMAN MORELOCK: So are these type
 17. one welded joints where it's a --
 18. MR. ESKRIDGE: They're full-pin
 19. welds.
 20. CHAIRMAN MORELOCK: -- full
 21. penetration?
 22. MR. ESKRIDGE: They're full-pin
 23. welds.
 24. CHAIRMAN MORELOCK: And so what type
 25. of NDE do you have to clear those? You said --

1. MR. PISCHKE: RT2.
 2. CHAIRMAN MORELOCK: So RT2, though,
 3. you're going to do two spots every 50 feet, not just
 4. one. The spot's going to be one every 50 feet on
 5. the circs. But if you want to get that UW
 6. (a)(5)(b) --
 7. MR. ROBINSON: 52.
 8. CHAIRMAN MORELOCK: -- to get you to
 9. RT2, you've got to take two spots on those circs.
 10. So look at your --
 11. MR. ROBINSON: I can't remember if
 12. RT1 or -- I'm sorry, RT2 or RT3.
 13. CHAIRMAN MORELOCK: Well, RT1 is full
 14. radiography --
 15. MR. ESKRIDGE: Correct.
 16. CHAIRMAN MORELOCK: -- and RT2 is
 17. you're taking credit for a full radiography with the
 18. additional spots on the circ seams. RT3 is spot,
 19. and then RT4 is whatever.
 20. MR. ESKRIDGE: Yeah.
 21. MR. ROBINSON: I know spot --
 22. CHAIRMAN MORELOCK: It's the
 23. catch-all.
 24. MR. ROBINSON: -- is under UW-52.
 25. CHAIRMAN MORELOCK: Yeah. Yeah.

1. MR. ESKRIDGE: Yeah. And RT2,
 2. there's only one T-joint -- it's a 32-inch diameter
 3. vessel. And so -- okay. So it looks like it's --
 4. they're following the equivalency of RT2. And if I
 5. don't have enough spots on the circ seams, then
 6. we'll drop down to RT3 --
 7. CHAIRMAN MORELOCK: Right.
 8. MR. ESKRIDGE: -- and treat it with a
 9. different joint efficiency.
 10. CHAIRMAN MORELOCK: Right.
 11. MR. ROBINSON: Perfect.
 12. CHAIRMAN MORELOCK: And it might be
 13. from one to .85.
 14. MR. ESKRIDGE: Yeah. Right now,
 15. they're taking credit for one on the shell and .85
 16. on the heads. And so --
 17. CHAIRMAN MORELOCK: Well, then
 18. that's -- okay.
 19. MR. ESKRIDGE: But again, that's the
 20. German code.
 21. CHAIRMAN MORELOCK: Yeah.
 22. MR. ESKRIDGE: They don't have their
 23. spot on the circ seams, and I thought -- well,
 24. again, we're what, six inches every 50 feet. I
 25. think what you're telling me -- it's probably 12

1. inches every 50 feet is what I heard.
 2. So is there a checklist that -- we've
 3. searched the website for a Tennessee board
 4. checklist. Anything out --
 5. CHAIRMAN MORELOCK: There's not a
 6. checklist for a Special.
 7. MR. ESKRIDGE: Okay. All right. And
 8. it's -- I understand most other board jurisdictions
 9. require that a State Special be PE stamped.
 10. CHAIRMAN MORELOCK: We do not require
 11. that.
 12. MR. ESKRIDGE: Okay.
 13. MR. CHAPMAN: Yeah.
 14. MR. ROBINSON: Calculations -- you
 15. just have to have the calculations --
 16. CHAIRMAN MORELOCK: Right.
 17. MR. ESKRIDGE: Okay.
 18. MR. ROBINSON: -- signed off on.
 19. MR. ESKRIDGE: That's fine. And
 20. then --
 21. MR. BOWERS: Drawings and
 22. calculations.
 23. CHAIRMAN MORELOCK: Right.
 24. MR. PISCHKE: And do they need to be
 25. signed off by the --

1. MR. ROBINSON: Well --
 2. MR. PISCHKE: -- State PE?
 3. MR. ROBINSON: They've got them
 4. electronic now and I don't know what the future
 5. says, but --
 6. CHAIRMAN MORELOCK: Tennessee really
 7. won't require a PE --
 8. MR. ROBINSON: Yeah.
 9. CHAIRMAN MORELOCK: -- review of
 10. that.
 11. MR. ROBINSON: So I --
 12. CHAIRMAN MORELOCK: Not in Rule
 13. 0800-03-03 anyway.
 14. MR. ROBINSON: Let me bring this up.
 15. Just using the Tennessee Special applies to vessels
 16. that are under construction.
 17. CHAIRMAN MORELOCK: That's true.
 18. MR. CHAPMAN: Yes.
 19. MR. ROBINSON: As opposed to being
 20. constructed.
 21. MR. ESKRIDGE: Yeah.
 22. MR. ROBINSON: So just -- that's the
 23. point of issue.
 24. CHAIRMAN MORELOCK: Right. But we've
 25. set precedent where we've already --

1. MR. ROBINSON: Right. I'm okay with
 2. it.
 3. CHAIRMAN MORELOCK: Yeah.
 4. MR. ROBINSON: I'm okay with it.
 5. MR. ESKRIDGE: Yeah.
 6. CHAIRMAN MORELOCK: We've already
 7. dealt with that.
 8. MR. ROBINSON: I'm perfectly okay.
 9. I'm just --
 10. CHAIRMAN MORELOCK: Yeah.
 11. MR. ESKRIDGE: Yeah.
 12. MR. ROBINSON: Not to make to it an
 13. issue going forward.
 14. CHAIRMAN MORELOCK: Sure. Sure.
 15. MR. ROBINSON: Also, just be advised,
 16. on material standards for TUV, there are certain
 17. instances where the testing required by TUV or
 18. Stoomwezen, that did inspect, is going to ask you
 19. for different test -- mechanical testing. Just make
 20. sure that that testing does -- at least you could
 21. transfer it over to Section II. I'm -- forgive me,
 22. my mind just went blank.
 23. CHAIRMAN MORELOCK: Yeah. Yeah.
 24. Section II's materials.
 25. MR. ROBINSON: Okay? And then --

1. MR. ESKRIDGE: You mentioned the
 2. tensile test, I think --
 3. MR. ROBINSON: Yes, sir.
 4. MR. ESKRIDGE: -- on the --
 5. CHAIRMAN MORELOCK: Yeah.
 6. MR. ROBINSON: On certain materials
 7. and not knowing what you're constructing it with,
 8. I'm just advising you that I've seen cases where
 9. they didn't inspect -- will require you to do
 10. certain mechanical tests.
 11. MR. ESKRIDGE: Correct.
 12. MR. ROBINSON: It either transfers --
 13. letting you know it's a whole host of things that
 14. are different. And just be advised that when you
 15. take that material, whatever it may be, and transfer
 16. it with your material test report to ASME Section
 17. II, that you have the adequate testing that was
 18. performed in advance. And it will show on the
 19. report, just a comparison.
 20. MR. ESKRIDGE: Okay.
 21. CHAIRMAN MORELOCK: Well, and you can
 22. ask the question, is this an equivalent ASME
 23. material that's been accepted by ASME Section II?
 24. MR. ESKRIDGE: Right. The material's
 25. 316Ti. Okay. It's kind of like a -- been around

1. for a long time. They use it a lot in Europe
2. instead of the L grades. They throw titanium in the
3. heat to stabilize it.
4. CHAIRMAN MORELOCK: You've got 316Ti
5. in --
6. MR. ESKRIDGE: And we do have 316Ti
7. in Section II.
8. MR. ROBINSON: Is it --
9. MR. ESKRIDGE: But again, it's going
10. to come from, you know, a plate material, like
11. 240 --
12. CHAIRMAN MORELOCK: 240.
13. MR. ESKRIDGE: -- 304.
14. CHAIRMAN MORELOCK: Right.
15. MR. ESKRIDGE: And -- but as Eugene
16. mentioned -- that, you know, they -- whether they do
17. tensiles in the traverse direction or longitudinal,
18. it'd be on the MTRs, so I'll look for that.
19. MR. ROBINSON: And -- yes. And
20. just -- yeah. Good. Perfect. Grain size -- I've
21. seen differences, just so you know.
22. MR. ESKRIDGE: Yeah.
23. MR. ROBINSON: And I don't know what
24. you're using, but just to let you know.
25. MR. ESKRIDGE: Okay. Yeah.

1. CHAIRMAN MORELOCK: Well, this will
2. be stainless vessel. So --
3. MR. ESKRIDGE: It will, so yeah, I
4. don't think they'll be looking at grain size. But
5. yeah, they -- the tensiles, I'll pay attention to
6. that. Anything else that you think on the MTRs?
7. CHAIRMAN MORELOCK: So what's the
8. maximum allowable temperature and a MDMT for this
9. material?
10. MR. ESKRIDGE: The MAWP is 232 psig.
11. CHAIRMAN MORELOCK: I know, but
12. what's the temperature? The maximum allowable
13. temperature?
14. MR. ESKRIDGE: 50 C, which is 121 F.
15. CHAIRMAN MORELOCK: Okay. So what's
16. the minimum design level temperature?
17. MR. PAULEY: Zero.
18. CHAIRMAN MORELOCK: Zero?
19. MR. ESKRIDGE: Zero C?
20. MR. PAULEY: Yes. Zero C.
21. MR. ESKRIDGE: So 32 F.
22. CHAIRMAN MORELOCK: Oh yeah,
23. that's --
24. MR. PISCHKE: That's pretty high.
25. MR. ESKRIDGE: Yeah. Especially for

1. stainless.
2. MR. PISCHKE: Yeah.
3. CHAIRMAN MORELOCK: Yeah. So
4. they're --
5. MR. ESKRIDGE: So there's no impact
6. test requirements. Yeah.
7. CHAIRMAN MORELOCK: Right. Right.
8. So there's --
9. MR. PISCHKE: But the European code
10. usually, or oftentimes, will mandate impact
11. testing --
12. MR. ESKRIDGE: Yeah.
13. MR. PISCHKE: -- that ASME would --
14. MR. ROBINSON: Would never.
15. MR. ESKRIDGE: Yeah.
16. MR. PISCHKE: -- would never. So --
17. MR. ESKRIDGE: The PED requires that.
18. I don't know if it does it for stainless, but I know
19. for carbon steel, they require that.
20. Even though the German code might not
21. do it, PED requires --
22. MR. PISCHKE: Yeah. You raised a
23. good point, and I don't want to complicate this any
24. more than we have to, about the welding procedures.
25. You know, their welding procedures are very close to

1. ours, to ASMEs. And over the past 10 years, we've
2. tried to harmonize them as much as possible, but
3. there may be some differences. Now, from a design
4. standpoint, it's not an issue.
5. And so I don't know if we want to
6. make that an issue. You know. They tend to --
7. the codes -- the European codes tend to emphasize
8. some slightly different things than we do, but
9. they're just as safe, and you know, just as good
10. as ours. It's just that they have a little
11. different approach --
12. MR. ESKRIDGE: Right.
13. MR. PISCHKE: -- to it.
14. MR. ESKRIDGE: Yeah. And so that's
15. why it's equivalency, not identical that we would
16. have to --
17. CHAIRMAN MORELOCK: Right.
18. MR. PISCHKE: Exactly.
19. MR. ESKRIDGE: One thing I've noticed
20. with even the Chinese code with the European is, you
21. see -- and you mentioned it in a previous variance
22. request -- nominal plate thickness, half-inch. And
23. if you order a nominal plate, it can come in
24. ten-thousandths under .49 or thirty-thousandths
25. over, depending on the thickness.

1. ASME has a statement that says, if it
 2. comes in that undertolerance, we'll still call it
 3. good. In Europe, they don't allow that
 4. undertolerance.
 5. So they -- so where they might not --
 6. they might be more liberal in one area, like for
 7. materials, if it comes in .495, it's rejected. It
 8. has to be five inches or greater.
 9. CHAIRMAN MORELOCK: Well, but you
 10. know why that is? Because their design margin is
 11. way lower than ours is.
 12. MR. ESKRIDGE: Right. That's exactly
 13. why. That's exactly why.
 14. CHAIRMAN MORELOCK: So they can't
 15. play around with that undertolerance.
 16. MR. ESKRIDGE: And so ASME uses a
 17. higher design margin and allows a little bit more
 18. margin on, you know, welding procedures and tensile
 19. tests, even. We might not have exactly the same
 20. tensile test, but they've certified it to 75,000
 21. tensile and 35,000 yield. So -- all right.
 22. CHAIRMAN MORELOCK: Okay. So --
 23. yeah. I think if you'll do that, it'll be a good
 24. review.
 25. MR. ESKRIDGE: So we'll have to

1. the drawings now, if you would like. We actually
 2. had a preliminary package.
 3. CHAIRMAN MORELOCK: You can leave
 4. them with Sam.
 5. MR. PISCHKE: I'm just going to ask a
 6. question --
 7. CHAIRMAN MORELOCK: One more question
 8. from Mr. Pischke.
 9. MR. PISCHKE: The pressure relief
 10. devices --
 11. MR. ESKRIDGE: Oh yeah, right.
 12. Right.
 13. MR. PISCHKE: Is that --
 14. MR. ESKRIDGE: We asked -- I asked
 15. about that with -- to Brian and they will put a
 16. National Board UV relief valve on there.
 17. MR. PISCHKE: Okay.
 18. MR. PAULEY: All of our safety
 19. instruments are done through our engineering and
 20. design group --
 21. MR. ESKRIDGE: Now, I --
 22. MR. PAULEY: -- to make sure that
 23. they --
 24. MR. ESKRIDGE: I have something else
 25. that -- it helps out the inspectors that we would

1. submit it within 45 days. So our target is sometime
 2. by the middle of January. Mail the board seven
 3. copies?
 4. CHAIRMAN MORELOCK: Send it to the
 5. State.
 6. MR. ESKRIDGE: Ten copies with
 7. plotted drawings and --
 8. MR. BYRD: To Sam's attention?
 9. CHAIRMAN MORELOCK: Yeah. Send them
 10. to Sam and then they'll get them sent to us.
 11. MR. ESKRIDGE: Okay.
 12. MR. BYRD: Thank you.
 13. CHAIRMAN MORELOCK: All right.
 14. MR. ESKRIDGE: Anything else?
 15. CHAIRMAN MORELOCK: Any other
 16. questions or concerns?
 17. MR. BYRD: No.
 18. MR. PAULEY: No.
 19. CHAIRMAN MORELOCK: All right.
 20. MR. PAULEY: Thanks for your time.
 21. MR. BYRD: Thank you.
 22. CHAIRMAN MORELOCK: It'll be
 23. interesting to see the drawings on that.
 24. (All talking at once.)
 25. MR. ESKRIDGE: We do have copies of

1. always have a problem in Kentucky is the vessel will
 2. come stamped bar --
 3. MR. ROBINSON: Yes, sir.
 4. MR. ESKRIDGE: -- but the PSV's going
 5. to be PSI.
 6. MR. ROBINSON: Yes, sir.
 7. MR. ESKRIDGE: So I would like to
 8. request to the manufacturer an informational tag or
 9. something on there to put the PSI so that you can
 10. match that with the relief valve and you don't have
 11. to do the calculations in the field.
 12. CHAIRMAN MORELOCK: Well, let me ask
 13. you a quick question. So when you put this into
 14. service, will it have a DOW nameplate on it beside
 15. the manufacturer's nameplate?
 16. MR. PAULEY: No.
 17. CHAIRMAN MORELOCK: Okay. Because
 18. when we get a vessel in, it'll have the
 19. manufacturer's and then we'll put our company
 20. nameplate on it, and that's where you could also
 21. print the units.
 22. MR. PAULEY: I mean, that's doable,
 23. and that makes a lot of sense. I mean, that way,
 24. you could convert everything over.
 25. CHAIRMAN MORELOCK: Right.

1. MR. PAULEY: So yeah.
 2. MR. ESKRIDGE: And Eugene -- these
 3. are manufactured vessels, so this one hasn't been
 4. built yet.
 5. MR. ROBINSON: Yes, sir.
 6. MR. ESKRIDGE: So we were able to
 7. incorporate some features like that.
 8. CHAIRMAN MORELOCK: Well, so -- and
 9. if it's not been built yet, then --
 10. MR. PISCHKE: I would request the
 11. dual --
 12. CHAIRMAN MORELOCK: Yeah.
 13. MR. PISCHKE: -- dual nameplate.
 14. MR. ESKRIDGE: Well, and the
 15. problem -- it'd be a dual nameplate if the
 16. AD Merkblatter allows dual nameplates.
 17. CHAIRMAN MORELOCK: Right.
 18. MR. ESKRIDGE: You know, ASME code
 19. does, but if their German code allows a dual
 20. nameplate --
 21. CHAIRMAN MORELOCK: I believe they
 22. do. We've -- I believe we've bought dual --
 23. MR. PISCHKE: Yeah.
 24. MR. ESKRIDGE: Okay. We'll request
 25. that.

1. CHAIRMAN MORELOCK: Yeah. If you do
 2. that, then it's a moot point.
 3. MR. ESKRIDGE: Yeah.
 4. MR. PAULEY: You know, we're
 5. certainly not going to weld on it, so --
 6. MR. ESKRIDGE: Yeah, yeah. It helps
 7. with, like I said, looking at MAWP and relief valve
 8. to make sure it's -- they connect.
 9. CHAIRMAN MORELOCK: All right.
 10. MR. ROBINSON: Very well.
 11. CHAIRMAN MORELOCK: Thank you very
 12. much.
 13. MR. PAULEY: Thank you.
 14. MR. ROBINSON: Good presentation.
 15. CHAIRMAN MORELOCK: Yeah. Good one.
 16. Okay. We have no rule cases or interpretations.
 17. Item 11, the next Board of Boiler
 18. Rules meeting is scheduled for 9:00 a.m.,
 19. Wednesday, March the 14th, right here at the
 20. Department of Labor. And my last item is Item 12,
 21. which is adjournment.
 22. And before I adjourn, I want to echo
 23. what Ms. Jefferson said. It's just been an honor
 24. to serve with all of you all. It's been really
 25. enjoyable to get to know all of the folks that

1. come to the board. We've built some really good
 2. relationships through that process. I hope we've
 3. been useful to you all, as well, as -- serving you
 4. to make sure that we keep pressure equipment safe
 5. in the state of Tennessee.
 6. I want to wish all of you all and
 7. your families a very merry Christmas and happy
 8. New Year, and we are here to serve you. So thank
 9. you for the opportunity. And we're adjourned.
 10. END OF PROCEEDINGS.

1. CERTIFICATE
 2.
 3. STATE OF TENNESSEE)
 4. COUNTY OF WILLIAMSON)
 5.
 6. I, Dominique A. Dubois LCR# 686, Notary
 7. Public and Court Reporter, do hereby certify that I
 8. have recorded to the best of my skill and ability
 9. by machine shorthand all the proceedings in the
 10. foregoing transcript, and that said transcript is a
 11. true, accurate, and complete transcript to the best
 12. of my ability.
 13. I further certify that I am not an attorney
 14. or counsel of any of the parties, nor a relative or
 15. employee of any attorney or counsel connected with
 16. the action, nor financially interested in the
 17. action.
 18. SIGNED this 16th day of February, 2018.
 19.
 20.
 21. _____
 22. Dominique A. Dubois, LCR# 686
 23. Notary Public State at Large
 24. My commission expires: 4/9/2018
 25.

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