

1 STATE OF TENNESSEE
2 DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
3 BOARD OF BOILER RULES
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8 QUARTERLY MEETING OF THE
9 STATE OF TENNESSEE
10 BOARD OF BOILER RULES

11 March 16, 2022
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18 ORIGINAL
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23 CASSANDRA M. BEILING, LCR# 371
24 STONE & GEORGE COURT REPORTING
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Suite 900 - PMB 234
Franklin, Tennessee 37069
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1 APPEARANCES:

2 Brian Morelock, Chairman
Owner-User Representative

3 David W. Baughman
4 Owner/User Representative
Allied Boiler & Supply, Inc.
5 4006 River Lane
Milton, Tennessee 37118

6 Jeffery Henry, Board Member
7 Boiler Manufacturer Representative
ATC-CES, Chattanooga, Tennessee

8 Dr. Keith Hargrove, Board Member
9 (Not present.)

10 Chris O'Guin, Chief Boiler Inspector

11 Mike Ryan, Assistant Chief Boiler Inspector
(Not present.)

12 Thomas Herrod
13 Assistant Commissioner, State of Tennessee

14 Daniel Bailey, Esq.
Legal Counsel, State of Tennessee

15 Dewayne Scott
16 Deputy Commissioner, State of Tennessee

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18 Jamie Diefenbach
19 Executive Admin. Assistant, State of Tennessee

20 Michelle Irion
Boiler Board Secretary, State of Tennessee

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1 Guest Appearances:

2 ECS Consulting
3 Marty Toth

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6 Court Reporting Services
7 STONE & GEORGE COURT REPORTING
8 Cassandra M. Beiling, LCR

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10 ** Reporter's Note: All names are spelled
11 phonetically unless otherwise provided to the
12 Reporter by the parties.

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A G E N D A

- 1
- 2 I. Call Meeting to Order
- 3 II. Introductions and Announcements
- 4 III. Adoption of Agenda
- 5 IV. Approval of the January 16, 2021 Meeting
6 Minutes
- 7 V. Chief Boiler Inspector's Report
- 8 VI. Variance Report
- 9 VII. Old Business
None
- 10 VIII. New Business
22-18 Lamberti Synthesis
- 11 IX. Rule Case & Interpretations
12 BI 21-02 ECS Consulting, LLC
- 13 X. Open Discussion Items
David Baughman
14 Tennessee Code Annotated 68-122-110
- 15 XI. Announcement of Next Meeting
16 Unless the Board decides otherwise, the
17 next regularly scheduled meeting of the
18 Board of Boiler Rules will be held 9:00 a.m.
19 on June 15, 2022, at the State of
20 Tennessee of Department of Labor and
Workforce Development building located at
220 French Landing Drive, Nashville,
Tennessee. Tentative dates for 2022 meeting
of the Board of Boiler Rules: March 16,
June 15, September 14, and December 14.
- 21 XII. Adjournment
- 22
- 23
- 24
- 25

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2 CHAIRMAN MORELOCK: Good
3 morning, everybody. I'll call this meeting to
4 order of the Tennessee Board of Boiler rules for
5 the March meeting. And if you don't have an
6 agenda, they're on the back table, and so you're
7 welcome to that.

8 We do have some refreshments if you
9 would like.

10 And so again, welcome everybody to the
11 Tennessee board meeting. I am going to start out
12 with introductions and announcements. And I want
13 to go around the room and let everyone introduce
14 themselves. And I'm going to start with our court
15 reporter.

16 THE REPORTER: Cassandra
17 Beiling, Stone & George Court Reporting.

18 MR. HENRY: Jeff Henry, board
19 member.

20 CHAIRMAN MORELOCK: Brian
21 Morelock, Board Chair.

22 MR. BAUGHMAN: Dave Baughman,
23 board member.

24 MS. MEDLEY: Jennifer Medley,
25 WRC.

1 MR. SCOTT: Dewayne Scott,
2 Deputy Commissioner. The Department.

3 MR. BAILEY: Dan Bailey, legal
4 counsel.

5 MR. HERROD: Tom Herrod,
6 Assistant Commissioner of WRC.

7 MR. O'GUIN: Chris O'Guin,
8 Chief Inspector.

9 MS. IRION: Michelle Irion,
10 board secretary.

11 MR. BOWERS: Harold Bowers,
12 retired board member.

13 MR. PROCTOR: Lonnie Proctor,
14 jurisdictional inspector, FM Global.

15 MR. HICKERSON: Philip
16 Hickerson, Deputy Inspector.

17 MR. STRICKLAND: Greg
18 Strickland, State Inspector.

19 MR. LARRY RITTER: Larry
20 Ritter, Somp International.

21 MR. COURSON: Steven Courson.
22 I'm the Director of Process Safety and Mechanical
23 Integrity for Wacker Corporation.

24 MR. RUDER: William Ruder,
25 Lamberti Synthesis, Project Manager.

1 MR. HAYNES: Brandon Haynes.
2 I'm an engineer with Industrial Boiler &
3 Mechanical.

4 MR. POWELL: Ian Powell,
5 Eastman Chemical at Kingsport.

6 CHAIRMAN MORELOCK: Thank you
7 all.

8 As far as announcements go, a brief
9 safety item is, "In the event of an emergency or
10 natural disaster, security personnel will take
11 attendees to a safe place either within the
12 building or direct them to exit the building on
13 the Rosa Parks side." So that's my safety item
14 for the day.

15 I would ask, if you have cell phones,
16 please be courteous and put those on silent during
17 the meeting so it won't be disruptive to people
18 making presentations.

19 Are there any other announcements
20 that anybody needs to make?

21 (No verbal response.)

22 CHAIRMAN MORELOCK: Okay.
23 That takes us to Adoption of the Agenda. So do I
24 have a motion to accept the agenda?

25 MR. HENRY: So moved.

1 CHAIRMAN MORELOCK: I've got a
2 motion.

3 MR. BAUGHMAN: Second.

4 CHAIRMAN MORELOCK: Second.

5 Any discussion, comments, positions?

6 (No verbal response.)

7 CHAIRMAN MORELOCK: All right.

8 All in favor say "aye."

9 (Affirmative Response.)

10 CHAIRMAN MORELOCK: Opposed,
11 abstentions, not voting?

12 (No verbal response.)

13 CHAIRMAN MORELOCK: We have an
14 agenda. And it's a short one.

15 All right. Our next item is approval
16 of the January 16, 2021 meeting minutes. I hope
17 you've had a chance to look through those. Do I
18 have a motion to approve these?

19 MR. O'GUIN: Chairman?

20 CHAIRMAN MORELOCK: Yes?

21 MR. O'GUIN: The date for the
22 January 16, that was actually the 27th.

23 CHAIRMAN MORELOCK: Okay. So
24 that's a typo?

25 MS. IRION: Sorry about that.

1 I just noticed it.

2 CHAIRMAN MORELOCK: Okay.

3 Well, I'm just reading off the agenda, so it's
4 okay.

5 MS. IRION: It was originally
6 the 16th.

7 CHAIRMAN MORELOCK: Right.
8 Okay. So that is the January 27th.

9 MS. IRION: Correct.

10 CHAIRMAN MORELOCK: All right.
11 Very good.

12 MR. HERROD: 22.

13 CHAIRMAN MORELOCK: Yeah,
14 2022. So any --

15 MR. HERROD: January 22.

16 CHAIRMAN MORELOCK: Oh, is it
17 22?

18 MS. IRION: It is.

19 CHAIRMAN MORELOCK: Okay. All
20 right. One more time. January 22, and that would
21 be 2022, right?

22 MR. HERROD: Correct.

23 CHAIRMAN MORELOCK: Instead of
24 2021?

25 MR. HERROD: Yes.

1 CHAIRMAN MORELOCK: All right.

2 We'll go for that. All right.

3 So now that we've got that straight,
4 any other additions or comments?

5 (No verbal response.)

6 CHAIRMAN MORELOCK: All right.

7 I'm going to call the vote.

8 All in favor say "aye."

9 (Affirmative Response.)

10 CHAIRMAN MORELOCK: Opposed,
11 abstentions, not voting?

12 (No verbal response.)

13 CHAIRMAN MORELOCK: All right.

14 We have approved the January 22, 2022 meeting
15 minutes.

16 That takes us to the next item on the
17 agenda which is the Chief Inspector's report.

18 I'll hand that over to Mr. O'Guin.

19 MR. O'GUIN: Thank you,
20 Chairman.

21 If you can see the graphs, Chairman,
22 the orange is for state inspections. It shows you
23 the difference in inspections since 2015. For the
24 current year of 2022, we're at 10,046 inspections.
25 We're tracking to 15,830, which will be a little

1 bit above last year.

2 We have had a couple of setbacks with
3 COVID and training this year that knocked us kind
4 of off track of what we were expecting.

5 The non-state for 2022 is 15,600,
6 tracking to 23,959, which is 5,000 short of last
7 year.

8 Delinquency Totals/Rates: State-
9 assigned vessels, 22,601; delinquent, 675 with a
10 rate of 3 percent. Insurance has 51,357 vessels
11 assigned; delinquent, 1,456 with a 2.8 percent
12 delinquency rate. Total assigned vessels, 73,958;
13 delinquent, 2,131 with a 2.9 percent overall.

14 High-pressure vessels assigned to the
15 State are 375; delinquent, 75 with a rate of
16 20 percent. Insurance-assigned, 1,500 vessels
17 with a delinquency of 375; delinquency rate,
18 25 percent. Total high-pressure vessels, 1,875;
19 450 delinquent with a 24 percent overall
20 delinquency rate.

21 For variances, we've got 89 active;
22 8 inspections performed this quarter and 8 passed.
23 We have 12 board-approved variances awaiting the
24 company for inspection. Those are not ready. We
25 follow up every 30 days.

1 CHAIRMAN MORELOCK: Any
2 questions or comments from the Chief's report?

3 MR. BAUGHMAN: I would like to
4 make a comment that I like the format that this
5 information is put in, Chief. It's in a good
6 format to be able to look at and analyze the
7 numbers. And I appreciate that.

8 MR. O'GUIN: I gave all of you
9 a copy of this so you can review it after the
10 meeting, if you like.

11 CHAIRMAN MORELOCK: Any other
12 questions or comments?

13 (No verbal response.)

14 CHAIRMAN MORELOCK: All right.
15 Our next item is the variance report.
16 And will that be Chief O'Guin?

17 MR. O'GUIN: I just gave it.

18 CHAIRMAN MORELOCK: Oh, okay.
19 That's on the back, isn't it? I was looking for
20 Mike. Sorry.

21 All right. Moving on to old
22 business, there is none.

23 That takes us to new business, which
24 is Item 22-18. Lamberti Synthesis requests
25 consideration for approval of a variance to the

1 boiler attendant requirement.

2 So if you would come to the public
3 podium and introduce yourself and present your
4 item.

5 While they're coming to the podium,
6 do we have any conflicts of interest on this item?

7 (No verbal response.)

8 CHAIRMAN MORELOCK: The Board
9 has no conflicts.

10 MR. BAILEY: Mr. Chairman?

11 CHAIRMAN MORELOCK: Yes?

12 MR. BAILEY: I was just going
13 to remind everybody that this is being recorded.
14 We have a court reporter, so please try to make
15 sure only one person is speaking at a time. If we
16 hear two people talking, then there's a problem.
17 So just try to keep that in mind.

18 MR. HAYNES: Good morning. My
19 name is Brandon Haynes. I'm an engineer with
20 Industrial Boiler & Mechanical. I've assisted
21 Mr. Ruder here with Lamberti in preparing his
22 variance manual. And I'll let him tell you about
23 his manual and the plant.

24 MR. RUDER: Hi. I'm William
25 Ruder with Lamberti Synthesis. I'm a project

1 manager. We're located in Chattanooga, Tennessee.
2 We make polyol surfactants, emulsifiers,
3 demulsifiers. A lot of those are used in
4 detergents, waxes, hardening concrete, additives
5 in oil drilling and oil processing. The plant was
6 Greenfield in 1999 and it started up in 2001.
7 Lamberti purchased the facility in December of
8 '06. It was originally Synair.

9 CHAIRMAN MORELOCK: Do I have
10 a motion to discuss?

11 MR. HENRY: So moved.

12 CHAIRMAN MORELOCK: Thank you.
13 So we have a motion to discuss.

14 MR. BAUGHMAN: Second.

15 CHAIRMAN MORELOCK: All right.
16 What comments or questions does the Board have of
17 this proposed variance?

18 MR. BAUGHMAN: This is Dave
19 Baughman, board member.

20 First of all, thanks for being here,
21 for coming in and making a presentation.

22 So the plant was put into effect in
23 '99 and operational in...

24 MR. RUDER: 2001.

25 MR. BAUGHMAN: 2001. So are

1 the boilers of that same age? I didn't see the
2 year of the boilers. I just see the model numbers
3 and the serials. Are they both '99s or 2000
4 models, or thereabouts?

5 MR. RUDER: The Donlee boiler
6 is. The Cleaver-Brooks was purchased used and
7 retubed at that time.

8 MR. BAUGHMAN: And what year
9 was that?

10 MR. HAYNES: Sorry, I forgot.

11 MR. BAUGHMAN: I'm sorry,
12 Brandon. You said sorry, you forgot?

13 MR. HAYNES: Yes, sir.

14 MR. BAUGHMAN: I'm just giving
15 you a hard time.

16 All right. Well, I'll come back to
17 that and make my notes on it, just because I'd
18 like to know what the age of the units are. We
19 don't have, necessarily, the Tennessee numbers
20 assigned on these boilers either. I see the
21 serial numbers, but don't necessarily see the
22 Tennessee numbers assigned, unless you've got that
23 in there somewhere.

24 MR. HAYNES: I don't believe I
25 do, Mr. Baughman. I'll make a note.

1 MR. BAUGHMAN: And that's all
2 right. And it's just more for my informational
3 purposes, for our purposes here and so forth.

4 So we've got the used boiler for the
5 CB been retubed, and it's gone through all the
6 R-1s and so forth on it, and application for
7 installing a secondhand boiler and so forth.

8 The Donlee, being new, I noticed it's
9 rated at 350 horsepower. The input on it is
10 11,000,718, which comes out shy at 350 horse. So
11 we're not running this boiler at its capacity; is
12 that correct?

13 MR. RUDER: That sounds
14 correct, yes.

15 I do have the date for the
16 Cleaver-Brooks. It's 1982.

17 MR. BAUGHMAN: 1982. Thank
18 you.

19 I think the 11,000,718 comes out to
20 somewhere around 279 horsepower. That's why I was
21 just interested in its waste stream, coming off
22 the TOX stream on that.

23 Getting into the kind of meat and
24 potatoes, I had a question as far as the procedure
25 goes for the heat-recovery boiler, in particular,

1 on its checking of the low water. So I would like
2 you to explain to me how the heat-recovery boiler
3 is checked, or doing a positive check of the
4 low-water cutoff. And I'm asking this because in
5 the manual, it talks about having a shunt, a
6 low-water cutoff shunt, that's simulating but not
7 actually going through the procedure of a
8 low-water -- in other words, it's a low-water
9 bypass. It's just checking the low water, but
10 it's not actually doing a function of a low-water
11 check. And it's putting the TOX dump stack -- you
12 have to put it in the manual position when you're
13 doing this. And then when it's finished, it goes
14 to the automatic.

15 So my concern is how do we ever check
16 the automatic -- how do we ever check the TOX dump
17 valve in the automatic position to make sure that
18 it's bypassing if it goes into low water?

19 MR. RUDER: When they do the
20 check, we'll put it in bypass, like you said, and
21 they'll open the blow-down of the blow controller,
22 and the light will alarm on the panel right there
23 by it. It will also alarm in the control room
24 where the remote attendant is.

25 MR. HAYNES: And you're

1 correct, we're not physically shutting the boiler
2 down. That's our request, yes.

3 MR. RUDER: Well -- okay.
4 Yeah, lifting the stack shuts the boiler down.

5 MR. BAUGHMAN: Yeah. So I
6 guess my -- in doing this, one of the concerns is,
7 is that the TOX bypass, the dump, is going into a
8 manual -- you're manually operating it, and then
9 when you're done, you're putting it back into
10 auto; whereas, we're never having it checked in
11 the auto position to make sure that that valve
12 works and goes closed during a low-water incident.

13 So my concern is, how do we ever
14 check to see if that dump actually works in the
15 automatic position? Does that make sense?

16 MR. HAYNES: It does. I mean,
17 I think we're trying to, you know, do what we need
18 to do to test the equipment without affecting the
19 plant process too much.

20 Maybe we need to discuss what's
21 acceptable for you guys, whether that's daily or
22 what we can do.

23 MR. BAUGHMAN: And for those
24 that don't know, what we're looking at is this
25 dump valve has to do with the heat source. So

1 what we're doing is we're not -- presently, we're
2 not checking the heat source cutting off
3 automatically. We're manually cutting off the
4 heat source when we're doing a blow-down of the
5 equipment. And then when we're done with the
6 blow-down, we're putting it back into automatic,
7 and then proceeding on with the operation. But
8 we're never checking it in real-life operation to
9 make sure that that mechanism bypasses the heat
10 source as it's supposed to do.

11 So that's the only thing that I saw
12 in that procedure that was kind of a red flag to
13 me, was we're not actually checking to make sure
14 that the heat source is bypassing during a
15 possible incident.

16 Mr. Ruder, does that make sense to
17 you? I don't want it to be ambiguous, but I
18 wanted to make sure I was clear on what I was
19 trying to put across.

20 MR. RUDER: I understand that
21 it's -- because if you open it, you're not
22 checking the automatic function.

23 MR. HAYNES: So I think what
24 you're getting at, we'd be better off to trip the
25 manual -- the automatic capabilities, we'd trip

1 that, I guess, daily or whatever you guys would
2 like to see.

3 MR. RUDER: So you would think
4 to eliminate lifting the stack and running it that
5 way?

6 MR. BAUGHMAN: Well, it's open
7 for discussion. It's just a concern of mine that
8 we're not checking to make sure that the heat
9 source is bypassed. And so because of that, the
10 mechanisms are alarming. In other words, we're
11 giving an alarm off, and it's going back to the
12 DCS and the remote station, but the equipment
13 itself is not actually being checked to make sure
14 that it operates when it needs to. So we're just
15 missing that one part of the equation, and that's
16 the checks of the operation of the equipment
17 itself.

18 I was trying to relate it to a
19 gas-fired or oil-fired boiler, and you're making
20 the checks but you're not actually checking it and
21 making sure the burner is shutting off. And
22 that's what we're trying to attempt here, is
23 checking it in an automatic position as in
24 real-life operations.

25 I'll leave that open for more

1 discussion as I look at some other questions. I
2 didn't want to beat that too hard, but that was
3 probably one of the bigger ones that I had.

4 And the other, quickly, was, are all
5 the alarms hardwired back to the remote station,
6 or are they going through the computer, the DCS --
7 in other words, we got a hardwired e-stop --

8 MR. RUDER: Correct.

9 MR. BAUGHMAN: -- but the
10 alarms themselves, how are they being transmitted?

11 MR. RUDER: They're
12 transmitted through the DCS system, which is
13 through -- in the boiler house, there's a remote
14 terminal unit where they go to the controller,
15 which controls the process. And there's six units
16 of those in the plant, and it goes through a fiber
17 loop back to the control room where it's in the
18 computer.

19 MR. BAUGHMAN: So the alarms
20 aren't necessarily hardwired. They're being
21 transmitted to these different areas via a fiber
22 loop?

23 MR. RUDER: Yes, for the
24 alarms. But like you said, the e-stops aren't
25 hardwired directly.

1 MR. BAUGHMAN: Sure. Are
2 those -- so is there also a -- the alarms come up
3 on a screen?

4 MR. RUDER: Correct.

5 MR. BAUGHMAN: And is there
6 any reset off of that screen itself that can be
7 accomplished?

8 MR. RUDER: No.

9 MR. BAUGHMAN: Okay.

10 MR. RUDER: It has -- no. You
11 cannot reset it in that area. It has to be reset
12 in the field.

13 MR. BAUGHMAN: Okay. So the
14 alarms come up -- if an alarm comes up, then it's
15 up to a remote attendant to hit the e-stop, and
16 then, I take it, we've got the e-stops out in the
17 boiler room itself, also, to cut the units off?

18 MR. RUDER: Yes. So there's
19 also a panel in the control room that has a red
20 light and an audible alarm that goes off in the
21 event that the control screen is not immediately
22 available -- or, I mean, immediately being looked
23 at at that moment. So it -- the alarm. The
24 audible alarm brings attention to everyone in the
25 control room and the remote attendant.

1 MR. BAUGHMAN: Excellent.

2 MR. RUDER: But it's also
3 going through the DCS.

4 MR. BAUGHMAN: So alarms --
5 and I was looking for a list of the alarms, and
6 there's -- the computerized remote monitoring
7 station on page 11 showed the parameters being
8 remotely monitored by both the DCS and the
9 closed-circuit TV. But I'm anticipating this is
10 not an all-inclusive set of parameters, or is it?

11 MR. RUDER: This is
12 all-inclusive for the boilers. This is not
13 all-inclusive for the DCS.

14 MR. BAUGHMAN: Okay. So this
15 would be for the boilers alone. So in particular,
16 we're looking at header pressures, which are
17 headers not on the boilers themselves. We're
18 looking at the heat recovery stack temperature off
19 of the Donlee boiler. I'm seeing low waters and
20 so forth for both units, but I'm not necessarily
21 seeing the alarms off of the boilers themselves,
22 unless it's on another page, Brandon.

23 MR. HAYNES: I mean, we just
24 list a flame fail here for the Donlee. It's the
25 only, I guess, boiler-specific alarm that we've

1 got.

2 MR. RUDER: Yeah, the flame
3 fail and the low waters.

4 MR. HAYNES: So yeah, we can
5 expand the list of possible alarms that they'll
6 get, and verify them.

7 MR. BAUGHMAN: And you as a
8 boiler man know there's a lot --

9 MR. HAYNES: More than that,
10 yes, sir.

11 MR. BAUGHMAN: All right. And
12 that definitely needs to be included if we're
13 doing remote monitoring and there's an alarm.
14 We've got a number of alarms that are not listed
15 on here that need to be. And I won't go into the
16 list of those, but let me just say that it's
17 lacking in that regard. Not that it can't be
18 added in, but those alarms are...

19 CHAIRMAN MORELOCK: Well, and
20 just to add to that point, during the site visit,
21 they can ask you to trip all of those alarms, and
22 if you can't do it -- you need to fix it now
23 instead of later.

24 MR. HAYNES: Yes, sir.

25 CHAIRMAN MORELOCK: Don't you

1 agree?

2 MR. BAUGHMAN: I do. And
3 Brandon can advise more on those alarms, but it's
4 not always going to be a standard low-water alarm.
5 It's blow-down, checking on low water. So
6 whatever the case may be, it may be high gas
7 pressure, low gas pressure, maybe air flow switch,
8 maybe whatever. And you've got the capabilities
9 through this Fireye E110 of tying into the mod bus
10 on it and enunciating that back, but if we're not
11 enunciating -- it's enunciating on flame failure,
12 but there's a lot more failure modes than just
13 flame failure. And we also need to have -- we've
14 got the header pressures on here, but we also need
15 to be looking at the high pressures on the boilers
16 themselves, the high-pressure switch, not so much
17 on the headers, but off of the boilers themselves.

18 And I know we're talking about low
19 water, so I want to make sure that the primary low
20 water is what's enunciating in addition to the
21 secondary low water. So at any rate, Brandon and
22 I can definitely get you taken care of on that.

23 MR. HAYNES: Yes, sir.

24 MR. BAUGHMAN: But we need to
25 make it more inclusive. Thanks, guys.

1 MR. HAYNES: Thank you.

2 CHAIRMAN MORELOCK: Is that
3 all your comments?

4 MR. BAUGHMAN: Yes.

5 CHAIRMAN MORELOCK: In looking
6 in the manual, if you look on page 15 of 20 and
7 then 18 of 20, both are emergency procedures. And
8 they're similar but they're not the same. And for
9 training and familiarity, I think all of your
10 emergency procedures should read the same so
11 there's not any confusion in training and
12 execution of those alarms.

13 I think that's all my comments. Any
14 other comments or questions?

15 MR. HENRY: No.

16 CHAIRMAN MORELOCK: No?

17 MR. BAUGHMAN: So we've got a
18 procedure that needs to be changed in here, or
19 discussed, and that goes back to the TOX dump.
20 And so that needs to be changed within the manual
21 itself on how they're actually going through that
22 and listing that out.

23 And so we don't necessarily have the
24 ability to review that on this front end, to look
25 at that procedure and how they're going to be

1 changing it. So they're saying they're going to
2 change it, but how do we look at that, review it,
3 approve it, or do we have them do that and
4 somebody else reviews it and says its good, or how
5 do we move forward with that?

6 Because as it stands right now, the
7 procedure on the TOX dump doesn't really cut the
8 mustard.

9 CHAIRMAN MORELOCK: Okay. So
10 that needs to be a revision to the manual, right?

11 MR. BAUGHMAN: Yes.

12 CHAIRMAN MORELOCK: And can
13 that revision be done based on the board member
14 comments today? Will the minutes detail what
15 changes need to be made?

16 MR. BAILEY: Mr. Baughman,
17 just for us who aren't boiler experts, what does
18 TOX stand for?

19 MR. BAUGHMAN: It's a thermal
20 oxidizer. It's taking --

21 MR. RUDER: Waste gas from the
22 process, and using as a fuel source to power the
23 boiler.

24 MR. BAUGHMAN: It has BTUs in
25 it from the process that, instead of having a

1 burner per se as a boiler would, it's using a
2 waste stream that has BTUs. And it typically
3 comes off of what we call a thermal oxidizer.

4 CHAIRMAN MORELOCK: So since
5 that's your comment, would that clear your comment
6 if it's revised based on what is going to be
7 recorded in this meeting to revise that?

8 MR. BAUGHMAN: It's good with
9 myself.

10 CHAIRMAN MORELOCK: Okay.

11 MR. BAUGHMAN: I just wanted
12 to make sure that we discussed it.

13 CHAIRMAN MORELOCK: So in the
14 site visit, then, they can see that that's been
15 revised per the comments here today.

16 MR. BAUGHMAN: Will we get a
17 revised manual or a revised portion to insert into
18 ours for those of us who keep these manuals? Will
19 we get a revision to put in there?

20 CHAIRMAN MORELOCK: I think
21 you can request that, yes.

22 MR. BAUGHMAN: I would, just
23 so we've got it for our own documentation.

24 MR. RUDER: I can certainly do
25 that. Yes, sir.

1 CHAIRMAN MORELOCK: Okay. All
2 right. Very good. Any other questions or
3 comments?

4 (No verbal response.)

5 CHAIRMAN MORELOCK: Do I have
6 a motion to contingently approve this variance
7 based on revisions to the manual from the board
8 member comments as well as a successful site visit
9 by the boiler unit?

10 MR. HENRY: So moved.

11 CHAIRMAN MORELOCK: I've got a
12 motion.

13 MR. BAUGHMAN: Second.

14 CHAIRMAN MORELOCK: Last call
15 for comments.

16 MR. HENRY: If I could just
17 add this one quick question further to
18 Mr. Baughman's comment.

19 Chief, do you consult the minutes
20 before making an inspection to ensure that any of
21 these provisional actions are confirmed?

22 MR. O'GUIN: When you-all
23 approve one that has to have changes made to the
24 manual, then yes, I will.

25 MR. HENRY: Okay. Thank you.

1 CHAIRMAN MORELOCK: Any other
2 comments?

3 (No verbal response.)

4 CHAIRMAN MORELOCK: All right.
5 All in favor say aye.

6 (Affirmative response.)

7 CHAIRMAN MORELOCK: Opposed,
8 abstentions, not voting?

9 (No verbal response.)

10 CHAIRMAN MORELOCK: Gentlemen,
11 you have a contingently approved variance manual.

12 MR. RUDER: Thank you.

13 MR. HAYNES: Thank you,
14 gentlemen.

15 CHAIRMAN MORELOCK: That
16 concludes new business. Moving on to -- the next
17 item on our agenda is Rule Cases &
18 Interpretations. And the first item that we have
19 is BI 21-02. ECS Consulting, LLC, requests an
20 interpretation on the requirements for manually
21 operated remote shutdown switches assigned to
22 low-pressure boilers installed and operated in the
23 state of Tennessee.

24 And so I'm going to let Mr. Toth
25 present this.

1 MR. TOTH: Thank you,
2 Mr. Chairman. Members of the Board, can you hear
3 me okay?

4 (Affirmative response.)

5 MR. TOTH: Wonderful. I
6 appreciate the opportunity. Sorry I cannot be
7 there in person. Y'all look well and healthy on
8 the screen.

9 If I could, I am going to share my
10 screen. I believe I can. I'm not as familiar
11 with the Microsoft version of this.

12 All right, members of the Board.
13 Please let me know that you see my screen.

14 CHAIRMAN MORELOCK: Yes.

15 MR. TOTH: Okay. Perfect. As
16 you can see, this interpretation was presented
17 some time ago, but with the pandemic and meetings
18 that we're trying to catch up on, it was tabled
19 for quite a few meetings. But Chief O'Guin and
20 myself were able to take a look at this proposal
21 and put some work into it, and hopefully it will
22 satisfy the Board.

23 In light of the interpretations that
24 were put out for high-pressure boilers,
25 Mr. Baughman made a wonderful suggestion some time

1 ago to look at low-pressure boilers and to
2 separate that into its own interpretation. So we
3 are doing so in this case.

4 Again, the requirements for ASME
5 CSD-1 and NFPA 85 that are both adopted through
6 the State of Tennessee have certain stipulations
7 within that require four e-stops, the emergency
8 stops, to assist the operator in the ability to
9 secure the boiler. Locally, they're at the
10 boiler, within the vicinity, but not directly
11 adjacent to the boiler.

12 What we've done here is massage some
13 of what you saw back in the original presentation
14 of this interpretation. And again, this was work
15 that was done between myself and Chief O'Guin to
16 try to put something together that would be
17 acceptable to the Board and more suitable for what
18 we see in the industry.

19 So as we can see here, Mr. Chairman,
20 if you would like, I can read through these and
21 give you the recommended replies.

22 CHAIRMAN MORELOCK: Yeah,
23 that's fine.

24 MR. TOTH: All right. So
25 Inquiry Number 1, what we have is, "In the state

1 of Tennessee, is it required that all locations
2 operating a low-pressure boiler at 400,000 BTUs
3 per hour or greater and built under Section IV of
4 the ASME Code and possessing the 'H' stamp be
5 connected to a manually operated remote shutdown
6 switch or circuit breaker?"

7 And the reply is yes.

8 That was really not much of a
9 difference from what was originally, as you can
10 see. The changes that Chief O'Guin and I made are
11 represented here on the right side.

12 Mr. Chairman, how would you like to
13 proceed? Would you like to take questions on each
14 inquiry or wait until the end?

15 CHAIRMAN MORELOCK: I'm okay
16 with voting at the end unless the board members
17 want to take them item by item.

18 MR. TOTH: Okay. I will
19 proceed. If anybody has any questions, please
20 interrupt me and I'll try to answer those.

21 Inquiry Number 2: "In the state of
22 Tennessee, is it required that all locations
23 operating a low-pressure boiler at 400,000 BTUs
24 per hour or greater and built under Section IV of
25 the ASME Code, and possessing the 'HLW' stamp be

1 connected to a manually operated remote --
2 (indiscernible).

3 Again, the answer is very similar.
4 But what we are referring to, for those that are
5 not aware --

6 THE REPORTER: (Indicating.)

7 CHAIRMAN MORELOCK: Can I
8 interrupt just for a minute?

9 THE REPORTER: I didn't pick
10 up that whole last part.

11 CHAIRMAN MORELOCK: Cassandra
12 can't hear you well enough to record your minutes
13 here, so can you speak more clear?

14 MR. TOTH: Okay. I don't know
15 what to do about that. Do we need to turn up? Do
16 we -- just tell me what I need to do.

17 MR. HERROD: Mr. Toth, can you
18 speak up and slow down just a little bit?

19 MR. TOTH: Sure. I'll do my
20 very best.

21 MR. HERROD: The screen is a
22 little small. If you could enlarge it for those
23 who don't have a handout, if that's an option for
24 you, so we can see these things.

25 MR. TOTH: Are you asking me

1 to increase the size? Is that...

2 MR. HERROD: Yes, sir.

3 MR. TOTH: Okay. All right.

4 And you're asking me to speak up?

5 MR. HERROD: Yes.

6 MR. TOTH: So I'll try to do

7 my best. I'm actually in a lobby.

8 MR. HERROD: Audio up and

9 speed down. Audio up and speed down.

10 MR. TOTH: Okay. So kind of

11 tell me when -- am I loud enough now?

12 THE REPORTER: (Indicating.)

13 MR. TOTH: Yes? Kinda sorta?

14 I see Cassandra kind of shaking her head, nodding

15 a little bit.

16 I don't really know what else to do.

17 I have my ear buds in, so I'm going to keep going

18 and then you just tell me if I need to repeat

19 something. How does that sound?

20 CHAIRMAN MORELOCK: Okay.

21 MR. TOTH: Okay. I see an

22 affirmative there from our distinguished court

23 reporter, so I will keep going.

24 So what we have here is -- again,

25 when we take a look at this, Inquiry Number 1 and

1 Number 2 are very similar. However, what we're
2 looking at is two different types of boilers
3 within the section for the ASME code, and one of
4 those being the H-stamp boiler, which is a heating
5 boiler, and the other being the HLW, which is your
6 lined hot water heater type of unit used for hot
7 water supply. That's why they're indicated
8 separately so that there is no confusion from the
9 end user if their potable water heater would have
10 to possess an e-stop or not. And so that's what
11 we have in this case.

12 Moving on to Inquiry Number 3, the
13 original inquiry did address potable water
14 heaters, but as you can see, we have struck this
15 inquiry because it is being addressed within
16 Inquiry Number 2 and is not necessary.

17 Inquiry Number 4, we will change that
18 to Number 3 and then change this reply also to
19 Number 3. It says, "If the reply of either
20 Inquiry 1 or 2 is yes, is it required that a
21 manually operated remote shutdown switch be
22 installed at each means of pedestrian egress from
23 the low-pressure boiler location? Example:
24 Boiler room."

25 And the reply is yes.

1 Former Inquiry Number 5 will be
2 changed to Number 4. "Where a low-pressure boiler
3 that is required to have a manually operated
4 remote shutdown switch is located indoors in a
5 facility and not in an equipment room, example,
6 boiler room, mechanical room, et cetera, is it
7 still required to have a manually operated remote
8 shutdown switch installed?"

9 And the reply is, "Yes; the manually
10 operated remote shutdown switch (e-stop) shall be
11 located within 50 feet or 15 meters of the boilers
12 along the pedestrian egress route from the
13 boilers."

14 Inquiry Number 5, previously Inquiry
15 Number 6, "For a fuel-burning burner on a
16 low-pressure boiler, is it required for the
17 manually operated remote shutdown switch to
18 disconnect all fuel and electrical power to the
19 boiler?"

20 The reply is, "No; the switch need
21 only shut off the fuel to the boiler, that is, the
22 burner."

23 Inquiry Number 6, previously
24 Number 7, "In the state of Tennessee, is it
25 required for all low-pressure boilers installed in

1 a location, example, boiler room, mechanical room,
2 facility location, et cetera, to be electrically
3 connected to a single manually operated remote
4 shutdown switch, i.e., e-stop, installed at the
5 point of egress, where the activation of the
6 switch shall actuate the master fuel trip relays
7 on all the boilers within the location?"

8 And I thought that we had talked
9 about this, and maybe Chief O'Guin can interject,
10 but we're saying, "No; however, this does not
11 restrict the owner-user from doing so if they
12 choose."

13 Inquiry Number 7, previously
14 Number 8, "For a low-pressure boiler(s) manually
15 operated remote shutdown switch where the boiler
16 room door/doors is on the building exterior, is it
17 allowable for the switch to be located just inside
18 the door to the boiler room?"

19 The reply is yes.

20 Inquiry Number 8, previously
21 Number 9, "For a low-pressure boiler manually
22 operated remote shutdown switch, where the boiler
23 room door is on the building interior, leading to
24 a place of assembly or foot traffic, and subject
25 to tampering, is it allowed for the switch to be

1 located just inside the door to the boiler room?"

2 The reply is yes.

3 And last but not least, Inquiry
4 Number 9, previously Number 10, "In the state of
5 Tennessee, when an existing low-pressure boiler
6 installation that's required to have a manually
7 operated remote shutdown switch is found to not,
8 is it required that these switches be
9 retroactively installed to the boilers?"

10 And the reply is yes.

11 And Mr. Chairman, that is the
12 presentation.

13 CHAIRMAN MORELOCK: Thank you,
14 Mr. Toth. Do I have a motion to discuss?

15 MR. HENRY: So moved.

16 CHAIRMAN MORELOCK: Thank you.

17 MR. BAUGHMAN: Second.

18 CHAIRMAN MORELOCK: What
19 questions/comments do you have on this proposed
20 interpretation?

21 MR. O'GUIN: Chairman, I have
22 one suggestion.

23 CHAIRMAN MORELOCK: Okay.
24 Chief O'Guin?

25 MR. O'GUIN: Inquiry 6 talks

1 about the single switch for all boilers in the
2 boiler room. I would recommend going like the
3 high-pressure interpretation is, where the reply
4 would be yes. However, you can request approval
5 from the Chief Inspector.

6 MR. TOTH: Yes. You kind of
7 cut out on me there, Chief O'Guin, but I think
8 we're on the same page, where we were on the
9 high-pressure boilers. We required for the e-stop
10 to trip all the boilers but allowing for the
11 owner-user to request for them not to. Is that
12 kind of what you were saying?

13 MR. O'GUIN: Yes, sir.

14 MR. TOTH: Yeah. That's kind
15 of where I saw that we had not -- I believe it's
16 Inquiry Number 6 that we're referring to, correct?

17 MR. O'GUIN: Yes, sir.

18 MR. TOTH: Okay. And if it
19 would please the Board, I would like to take this
20 inquiry and match what we have for the
21 high-pressure boiler interpretation, if that
22 satisfies you.

23 CHAIRMAN MORELOCK: I agree
24 with that.

25 Any other comments?

1 MR. HENRY: Mr. Toth, could
2 you go up to your current Number 3? This is just
3 an editorial suggestion.

4 MR. TOTH: Sorry. You kind of
5 cut out on me. I can't...

6 MR. HENRY: Could you scroll
7 up to your current Interpretation 3, Number 3?

8 MR. TOTH: On here that's on
9 the screen?

10 CHAIRMAN MORELOCK: No. It's
11 not showing on the screen.

12 MR. HENRY: You're showing on
13 the -- the first one showing on the screen is
14 Number 4.

15 MR. TOTH: Okay. I see...
16 Unfortunately, I'm seeing Number 3 on my screen.
17 Maybe it's just a lag. Is that possible?

18 MR. HENRY: It's a significant
19 lag, then.

20 MR. TOTH: It must be a lag.
21 Let's see how I can solve that.

22 MR. HENRY: Well, rather
23 than -- okay.

24 MR. TOTH: Here it is.

25 MR. HENRY: Okay. Yes.

1 CHAIRMAN MORELOCK: There you
2 go.

3 MR. TOTH: Okay.

4 MR. HENRY: And again, this is
5 just an editorial, but I think the way that
6 response should read or the way the inquiry should
7 read is, "If either of the responses to the first
8 two inquiries is 'Yes.'"

9 MR. TOTH: Okay.

10 MR. HENRY: Thank you.

11 MR. TOTH: And you said, "If
12 either of the responses" -- say that again, sir.
13 How would you like for that to read?

14 MR. HENRY: I said, "If either
15 of the responses to the first two inquires is
16 'Yes.'" And then everything else remains the
17 same.

18 MR. TOTH: Okay. I will make
19 sure and put that in there.

20 MR. HENRY: Thank you.

21 CHAIRMAN MORELOCK: What other
22 questions or comments?

23 MR. BAUGHMAN: Mr. Toth, it's
24 Dave Baughman. How are you doing, buddy?

25 MR. TOTH: I'm doing fine.

1 How are you?

2 MR. BAUGHMAN: Glad for
3 another day.

4 I've got just a question on Inquiry
5 Number 2, whereas it says, "In the state of
6 Tennessee, it is required that all locations
7 operating a low-pressure boiler built under
8 Section IV of the ASME Code possessing the HLW
9 stamp" -- and that "HLW" being a hot water lined
10 water heater; is that correct?

11 MR. TOTH: It can be, yes. It
12 can be lined, or it's mostly potable. But yes.

13 MR. BAUGHMAN: And so we're
14 talking about hot water heaters, correct?

15 MR. TOTH: That's any type of
16 hot water heater, hot water supply boiler, yes.

17 MR. BAUGHMAN: Okay. So hot
18 water supply boiler. And I guess my question is,
19 is we're in the industry and we're explaining this
20 code to others, and we're trying to -- the code
21 states "low-pressure boiler," and we're trying to
22 describe to them that it's a hot water heater.
23 I'm just wanting to make it as easy as possible to
24 explain this wording to somebody to make it as
25 understandable as possible. I didn't know if we

1 could change that to hot water supply boilers and
2 hot water heaters versus low-pressure boiler,
3 which most interpret as a low-pressure steam
4 boiler or a hot water heating boiler.

5 MR. TOTH: Absolutely. I
6 think that would be a satisfactory suggestion. We
7 could, as you suggested in both Inquiry Number 1
8 and Number 2, identify that an H-stamp boiler is a
9 hot water heating boiler and an HL-stamp boiler is
10 a hot water supply boiler. Would that satisfy?

11 MR. BAUGHMAN: Well, the hot
12 water heating boiler for the H-stamp also
13 encompasses low-pressure steam in addition to hot
14 water and hydronic type of heating.

15 MR. TOTH: That's right.

16 MR. BAUGHMAN: So I don't know
17 if I would necessarily change Number 1's reading.

18 MR. TOTH: Okay. Okay.

19 MR. BAUGHMAN: But I did want
20 to differentiate the HLW for the hot water supply
21 and hot water heaters, since that's what it's
22 applicable to.

23 MR. TOTH: Okay. Yeah, we can
24 definitely do that. I do know that there -- if
25 I'm not mistaken, there is a definition within the

1 rules and regulations that identify the hot water
2 supply boilers. So I think by putting that in
3 there, it would satisfy your concerns. So we can
4 just add the words "possessing an H-stamp." And
5 please, we can -- I don't know if this is catching
6 up to you as I'm typing or...

7 MR. BAUGHMAN: And while
8 you're typing, I'll just ask if that's acceptable
9 with Chief O'Guin and it makes sense. And to you
10 also, Mr. Toth, does that make sense? And others
11 on the board.

12 MR. TOTH: -- "be connected to
13 a manually" -- is that fine with yourself and also
14 Chief O'Guin? It's fine with me. And if anybody
15 wants to wordsmith that, Chairman Morelock, you're
16 more than welcome to, sir.

17 CHAIRMAN MORELOCK: Mr. Toth,
18 we're waiting for our screen to catch up for
19 Number 2.

20 MR. TOTH: Okay. I'm sorry.

21 MR. O'GUIN: Chairman, can
22 Marty just read it to us since it's not catching
23 up with our screens?

24 MR. TOTH: I'm sorry. You
25 kind of -- you just kind of came back out. I hear

1 you now, so can you repeat that, Chief O'Guin?

2 MR. O'GUIN: Can you just
3 reread it since you've retyped it, since it's not
4 showing on our screen?

5 MR. TOTH: It's not? Okay.
6 Let's see if we can get this thing to work. And I
7 do apologize for not being there in person. We'll
8 see if we can make it work. I'm going to do this,
9 and then I'm going to try to read it. Has it made
10 it over yet?

11 CHAIRMAN MORELOCK: Not yet.
12 Chief O'Guin's recommendation was for you just to
13 read it and see if we agree with the revision.
14 You can just read it.

15 MR. TOTH: Okay. Just read
16 it? Yeah. The audio is going in and out on my
17 end. I do apologize.

18 So what we're showing is Inquiry
19 Number 2, is, "In the state of Tennessee, is it
20 required that all locations operating a
21 low-pressure boiler at 400,000 BTUs per hour or
22 greater and built under Section IV of the ASME
23 Code and possessing the H-stamp for hot water
24 supply boilers be connected to a manually operated
25 remote shutdown switch or circuit breaker?"

1 And the response is yes.

2 MR. BAUGHMAN: So do we need
3 to differentiate not only hot water supply
4 boilers, as we know in the industry what they are,
5 but add hot water supply boilers and hot water
6 heaters? Or does hot water supply boilers
7 encompass that explanation enough for those in the
8 industry? In other words, I guess I'm getting the
9 technological end of it of the differentiation
10 between the boiler and a hot water heater.

11 MR. TOTH: No. I think that's
12 a very valid point. If you would like, I can put
13 it in parenthetical, heaters or water heaters,
14 something of that sense if you think it would
15 clarify it.

16 MR. BAUGHMAN: I think so. As
17 you know, as we're trying to explain this to the
18 industry, I think that would be time well spent.

19 MR. TOTH: Okay. Well, I will
20 just put in -- I'm going to do, "Example: Water
21 heater." Would that be satisfactory?

22 MR. BAUGHMAN: I believe so.

23 MR. TOTH: Okay. And I have
24 done that on my end.

25 CHAIRMAN MORELOCK: Okay.

1 That will help anyone -- those interpretations are
2 open for anyone to view and read those, so I think
3 that will be helpful, especially --

4 MR. TOTH: I think it would.

5 CHAIRMAN MORELOCK: -- what
6 we've done in the past to have parenthetical
7 references to the ASME Code and NBIC.

8 Any other questions or comments?

9 MR. BAUGHMAN: Yes, I do. And
10 you've still got Dave here, Mr. Toth.

11 The other comment I had was on what
12 was Number 4, but it's where -- it was the reply
13 to the inquiry above, "Where a low-pressure boiler
14 that is required to have a manually operated
15 remote shutdown switch is located indoors," and so
16 forth and so on, and it has to do with the last
17 sentence, "shall be located within 50 feet of the
18 boiler," parentheses, "boilers along the
19 pedestrian egress route," parentheses, "routes
20 from the boiler/boilers."

21 I was interested in putting "each
22 route" instead of "along." Even though we've got
23 the routes with an "s" on the end of it, making
24 sure that they understood that it's each route and
25 not just -- and it just adds to the "s" on the end

1 of "routes" and "boilers." But it makes it very
2 specific that it's each route of pedestrian
3 egress. What's your thoughts?

4 MR. TOTH: No. I think that's
5 definitely -- if it helps to explain it, I am
6 absolutely in line with that. I'm just trying to
7 see which one. Okay.

8 So you're looking at in the reply of
9 the revised Number 4; is that correct?

10 MR. BAUGHMAN: Yes, sir.

11 MR. TOTH: Which was
12 previously 5? Okay. Okay. So --

13 MR. BAUGHMAN: I believe --

14 MR. TOTH: "Yes; the manually
15 operated remote shutdown switch (e-stop) shall be
16 located within 50 feet (15 meters) of the boilers
17 along each pedestrian egress route."

18 Is that kind of what you're looking
19 at, is putting "each" or "all," or what word would
20 you like to see in there?

21 MR. BAUGHMAN: "Each," please.
22 Or just "each."

23 MR. TOTH: Okay. "Each
24 pedestrian egress route/routes from the boiler."

25 MR. BAUGHMAN: Yes, sir.

1 MR. TOTH: Is that -- okay.

2 It's done.

3 MR. BAUGHMAN: The next
4 comment I had is more from a technical nature, but
5 it's the reply to the next inquiry about shutting
6 off the fuel or energy input to the boiler. And
7 again, as you and I are discussing these events
8 with those in the industry, the contractors,
9 there's some boilers that -- they'll tie the main
10 gas in and shut the main gas off to the boiler,
11 which shuts the fuel off, but there's boilers that
12 have an intermittent pilot, but it continues to
13 operate the pilot.

14 A small boiler is not that big of a
15 thing, but on Fulton's variable units, they've got
16 a healthy flame in there that you can actually
17 generate some steam pressure.

18 So my question or thought is to put
19 in to shut off all the fuel or energy input to the
20 boiler so that they know that it's got to cut off
21 the main fuel coming in and not -- and "main fuel"
22 encompassing both the pilot and the main burner
23 fuel instead of just the main burner fuel.

24 I want to make it to where they are
25 not allowed to continue to operate the pilot also.

1 MR. TOTH: Since I don't know
2 if it's catching up as I'm typing -- I don't think
3 it is, so what I'm doing is under the reply for
4 the new Number 5 is to put "No," semicolon, "the
5 switch need only shut off all the fuel to the
6 boiler, i.e., burner, pilot -- burner combo
7 pilot." Does that look satisfactory?

8 MR. BAUGHMAN: Yes, sir.
9 Thank you.

10 MR. TOTH: Good suggestion.
11 Thank you.

12 CHAIRMAN MORELOCK: Any other
13 questions or comments?

14 (No verbal response.)

15 CHAIRMAN MORELOCK: Hearing
16 none, do I have a motion?

17 MR. BAUGHMAN: Motion to
18 accept as we've discussed.

19 MR. HENRY: Second.

20 CHAIRMAN MORELOCK: Any other
21 last comments or questions?

22 (No verbal response.)

23 CHAIRMAN MORELOCK: Hearing
24 none, I'm going to call the question. All in
25 favor say "aye."

1 (Affirmative Response.)

2 CHAIRMAN MORELOCK: Opposed,
3 abstentions, not voting?

4 (No verbal response.)

5 CHAIRMAN MORELOCK: You have
6 an approved interpretation.

7 MR. TOTH: Thank you,
8 gentlemen. I appreciate it. I will get a clean
9 copy of this over to Chief O'Guin so he can
10 distribute it to the board members and to let me
11 know if there was anything that was missed from
12 this discussion.

13 CHAIRMAN MORELOCK: Very good.
14 Thank you, Mr. Toth.

15 MR. TOTH: All right. Thank
16 you very much. I appreciate you.

17 CHAIRMAN MORELOCK: All right.
18 So that concludes our rule cases and
19 interpretations.

20 That brings us on to our next item,
21 which is open discussion items. And we have one
22 item, Mr. Dave Baughman. Tennessee Code Annotated
23 68-122-110, "Inspection of boilers per (a)(2),
24 low-pressure heating boilers shall be inspected
25 both internally and externally biannually where

1 construction will permit."

2 So Mr. Baughman, it's all yours.

3 MR. BAUGHMAN: Thank you,
4 Chairman.

5 This discussion has been put on the
6 agenda probably as many times as what the e-stops
7 have been on here, but I'm thankful to have the
8 opportunity to be able to discuss this particular
9 code item. We've had many discussions over really
10 the past couple of years, I would say, trying to
11 get input from the industry, input from the
12 inspectors, other colleagues, contractors, and so
13 forth for us that are boots on the ground that see
14 some of the ramifications of where we're at in our
15 industry in regard, specifically, just to the
16 low-pressure items, let alone inspections as a
17 whole in the industry.

18 So our code is specific inasmuch as
19 the annotated -- Tennessee Code Annotated
20 68-122-110(a)(2). What we want to do is get
21 everybody on the same page. And as much as this
22 code specifically says that these boilers "shall"
23 be inspected -- not "should," but "shall" -- both
24 internally and externally biannually where
25 construction permits, well, that's where the issue

1 comes up, is the construction permitting. And
2 that's somewhat interpretive between the customer,
3 the inspector, and the contractor. And so, then,
4 how do you determine whether the boiler can be
5 inspected or not?

6 We, as service contractors in the
7 industry, know what boilers can be opened and so
8 forth but the inspector may not. And so this is a
9 process that's going to take a period of time to
10 educate within the industry how some of these
11 boilers can be looked at. They may not be able to
12 be looked at on the water side, but the fire boxes
13 can be looked at, the refractories, the burners.
14 That all relates back to carbon monoxide formation
15 and issues.

16 So even though on some of these new,
17 high-efficiency designed borders, you can't look
18 at the water side per se, you can still open up,
19 look at the burners, look at the refractories,
20 look at the condition of the boiler to determine
21 if, in fact, the boiler is in good shape, not, so
22 forth.

23 But there's been interpretations,
24 personal interpretations in the industry of what
25 can be looked at and what doesn't get looked at.

1 And we just wanted to bring this up for discussion
2 so that everybody gets on the same page that it is
3 part of our code that these boilers will be, shall
4 be, inspected where construction permits.

5 So again, this is an open discussion
6 item. I wanted to bring the questions up. I know
7 when we asked for questions at one meeting, I
8 think we heard crickets. But there was a lack of
9 input and actual discussion. So that's what this
10 item is here for.

11 MR. TOTH: Mr. Chairman?

12 CHAIRMAN MORELOCK: Yes,
13 Mr. Toth.

14 MR. TOTH: I would like to
15 interject on this. I think this is a wonderful
16 discussion item. This is something that has been
17 a problem -- and I call it that purposefully -- a
18 "problem" for years. I just don't know what the
19 solution is. And the reason why it's a problem is
20 because it requires a decision to be made at the
21 inspector level. And what I mean by that is very
22 similar to what Mr. Baughman alluded to is that
23 some inspectors are familiar with certain boilers
24 and they may not be familiar with other
25 construction types of boilers.

1 But with -- if we were to say -- let
2 me use an example. If we were to say that a
3 Cleaver-Brooks firetube boiler was a low-pressure
4 boiler, you know, every inspector out there should
5 know exactly what the construction is on that
6 particular boiler. So that would be an easy call
7 versus a low-pressure unit such as a Lochinvar or
8 something of that type.

9 Now, with that said, the other
10 problem that you run into is the belief in the
11 industry; what is more important, an internal
12 inspection or an external inspection? And I teach
13 quite often and I give examples of situations of
14 things that have occurred because there was a lack
15 of each type.

16 In one case, they did not do an
17 external inspection to check all the controls and
18 safety devices, operations. The next example was
19 they did not do an internal inspection, and there
20 was a fatality.

21 So you're going to run into an issue
22 with stating that the boiler is going to be
23 inspected, a low-pressure boiler, once every
24 two years. And if that's the case, it's very
25 difficult, not only time-wise but also

1 financially, for the insurance companies to send
2 an inspector back out at a separate occasion to do
3 an internal inspection when a certificate has
4 already been issued for an external inspection on
5 that low-pressure boiler.

6 So those are kind of the two issues
7 that are going to be very difficult when you try
8 to resolve the problem.

9 Me personally, when I was an
10 inspector and also when I was Chief, we would try
11 to train the inspectors to make that
12 determination. And what would end up happening
13 would be we would do an internal inspection every
14 other inspection cycle. And that was just our way
15 around those particular units, especially those
16 units that are closed units such as a heating
17 boiler where it's not recommended to drain the
18 entire system or open the boiler because you could
19 get oxygen into the water system. Things like
20 that have to be considered as well.

21 And that's my two cents on it, and I
22 appreciate the time.

23 CHAIRMAN MORELOCK: Thank you,
24 Mr. Toth.

25 Chief O'Guin?

1 MR. O'GUIN: Thank you,
2 Chairman.

3 I've got a question out to the
4 national board members on this topic. And I'm
5 currently still getting feedback, I'd say, every
6 couple of weeks with this question.

7 So I spoke with legal counsel,
8 Mr. Bailey, about writing a tech gram from the
9 Chief's office about this matter. But after
10 discussion, we decided it probably would be better
11 to come to the Board for interpretation for it and
12 put it out. We may look at it on the
13 high-pressure as well, because we've got the same
14 issue with some miniature boilers from the
15 high-pressure side from past interpretations, I
16 guess, as far as it not being an internal as
17 required by law. So that will be something we'll
18 present at the June meeting, if the Board is good
19 with that.

20 MR. BAUGHMAN: Yes, Chief.
21 I'm good with that, and I appreciate Mr. Toth's
22 input. In reading ASME, ASME has recommendations
23 for the care of low-pressure boilers. And in
24 that, there's two different sections. One of them
25 says if at all possible you shouldn't drain the

1 unit, and never should you have to drain the whole
2 system. The problem with an internal on some of
3 these boilers, they don't have the header valves
4 on the -- in particular, on hot water boilers,
5 they don't have a header valve on the supply and
6 the return, which they should.

7 But in order to look at the boiler
8 internally, you would have to drain the whole
9 system down, which really opens up a whole can of
10 worms for getting air into the system and
11 operational issues. Whereas, if they're able to
12 drain just the boiler down itself on a hot water
13 system, then it recommends that you do that.

14 The issue is, is that if you don't
15 look at the internals, you never know what they
16 look like. And in our experience in the industry,
17 not that I've seen it all, just the opposite. I
18 know how much I don't know. But we've seen many
19 boiler failures on hot water boilers because they
20 weren't looked at on the internal services when
21 could have been.

22 And so then the insurance company
23 gets involved. The insurance company declines a
24 claim. We come back and say, "Well, but the
25 boiler hadn't been opened up internally as

1 required by our State code." They go back and
2 find out yes, that's the case. Then they have to
3 pay the claim because the boiler wasn't inspected
4 properly.

5 So there's a lot of ramifications to
6 what this code brings to the table. But
7 ultimately, the way this code is worded is that it
8 says, "The boiler shall be inspected internally
9 and externally biannually," which just means once
10 every two years the boiler is looked at
11 internally. And in between that, it's external.

12 So it's not a one-size-fits-all.
13 These aren't all heating boilers. Some of these
14 boilers run year round. They're used for
15 humidification control. They're used as
16 low-pressure steam boilers along with hot water
17 boilers. And you would think that -- you know,
18 we're talking about typically a heating boiler
19 that operates during the heating degree days of
20 the heating cycle. But that's not always the
21 case.

22 So typically, you would want to, on a
23 heating boiler, do your internal during the summer
24 months and do your external while the boiler is
25 running during the winter months. It's when the

1 boiler is running. You wouldn't want to do an
2 external inspection on a boiler that is not
3 running, as you're there to check the controls and
4 the operations. So you've got to mold it per each
5 installation.

6 But ultimately, there's more
7 education and training that needs to be afforded
8 to the inspectors on not only these low-pressure
9 boilers, but also high-pressure boilers. As Chief
10 O'Guin had said, we've got some of the same issues
11 within our industry on high-pressure, too,
12 especially with the different design boilers that
13 are coming about on the market and so forth.

14 So I think bringing this up for the
15 June meeting would be good. I look forward to
16 having any other input and discussion with anybody
17 regarding this also. Thank you.

18 MR. TOTH: Mr. Chairman, can I
19 add one more thing, if you don't mind?

20 CHAIRMAN MORELOCK: Yes,
21 Mr. Toth.

22 MR. TOTH: The biggest issue
23 that I've seen in my time -- and I think
24 Mr. Baughman can attest to this on these
25 low-pressure boilers -- is the steam boiler. The

1 hot water boiler, yes, definitely, there's
2 problems there. But it's the steam low-pressure
3 boiler that does not get that internal inspection,
4 especially in regards to a section of boilers like
5 cast-iron boilers, so on and so forth, that are
6 steam cast-iron boilers less than 15 PSI that have
7 fresh water makeup coming in, lack of water
8 treatment, things of that nature, high levels of
9 scale buildup. Those definitely, we need to have
10 something in place that can guide the inspectors.

11 And on what Mr. Baughman alluded to
12 in regards to header cut-offs, I think that is
13 something that's not regulated or required. I
14 think that the State of Tennessee could do the end
15 users justice by putting in a requirement for
16 installation that allows for that boiler to be
17 isolated. The codes kind of tell you it's a
18 "should." You should have these in there. I
19 think if we look at the word "should" in the code,
20 "shall" is a requirement. "Should" is only a
21 requirement if it's required by the jurisdictional
22 authority.

23 And I think that it would help if we
24 guided or the State guided those installations and
25 said yes, you will be able to isolate this boiler

1 so we can do things like low-water cutoff tests
2 and things of that nature on the boiler.

3 I'll give you a brief example. A
4 number of years ago, one of the prisons there in
5 town, I went in because they had a boiler that
6 melted down. Well, it was low-pressure boiler.
7 Okay? It had -- which only required one low-water
8 cutoff. It had a test button, but the boiler
9 lost -- the pumps lost prime. The boiler, in
10 essence, melted down on itself.

11 When we went back and looked, there
12 was a recommendation to the end user there at the
13 prison to put header valves so we could test the
14 boiler. They chose not to. And what they ended
15 up having to do was replace the entire boiler
16 because they did not have header valves so they
17 could actually test the low-water cutoffs properly
18 on that boiler.

19 So these are all situations that come
20 around to where we can make a safer environment.
21 I think Mr. Baughman is right on in what he's
22 looking for. It's just going to be very difficult
23 to come up with an answer, and it's not going to
24 be something you're going to be able to do in one
25 or two meetings. It's going to take a pretty good

1 while, but I think it's worth the fight. Thank
2 you.

3 CHAIRMAN MORELOCK: Thank you,
4 Mr. Toth.

5 Any more -- yes, Mr Bowers.

6 MR. BOWERS: Harold Bowers,
7 retired board member. I know we've had this
8 discussion going on a long time about the hot
9 water heaters, the hot water boilers. And it's
10 always been -- I've worked for five different
11 chiefs in the State of Tennessee, and each of them
12 have a different interpretation of how much we do
13 this.

14 So I think a lot is going to fall
15 back on Mr. O'Guin to make the final decision,
16 because he's the one who has the control of the
17 insurance inspectors and the state inspectors to
18 what degree he can look at it and say, "I'm seeing
19 these turned in and they're leaving these
20 inspections out."

21 The way the old system was, you did
22 not have to turn in an internal inspection on a
23 low-pressure boiler. The system -- you always
24 turned in an external inspection. So that's
25 something maybe the new system, taking a look at,

1 that you actually have turn in an internal
2 inspection on a low-pressure boiler.

3 But still, a lot of it is going to go
4 back to Mr. O'Guin and how he interprets it to the
5 inspectors. For example, I've done work in most
6 of the southern states. State of Florida, the
7 Chief down there decided on low-pressure steam
8 boilers, that the only proper way to do a
9 low-pressure steam boiler was actually to pull
10 down. So he had a directive and he said, "For
11 now, when you do an internal inspection on
12 low-pressure steam boilers, you had to do both."
13 The Chief made that interpretation.

14 So it's all going to fall back to --
15 the rule is a little vague, but it still falls
16 back to -- the inspector has to make some
17 discretion on the job which falls back to the
18 Chief, who is over the inspectors. And it's going
19 to be hard to ever put it down on paper exactly
20 how you're going to do it.

21 But if you talk to a contractor, he's
22 always going to say -- like, you go to a car shop
23 and say, "Should I replace my brakes?" He's
24 always going to want to say yes, replace your
25 brakes. And so if you talk to a contractor, he's

1 always going to say, "Let's do this." But it
2 still falls back to how the Chief feels about it,
3 what the situation is. He's going to have to make
4 that call.

5 You know, because I remember when I
6 worked under Chad, his big thing is, we were doing
7 all these inspections out in schools during the
8 summertime, and all the boilers were shut down.
9 And Chad, when he was Chief, he was saying, "Y'all
10 need to see these boilers operate. You need to
11 see them heated up. That's the only way to do it
12 properly. Heat the boiler and make sure -- and
13 see if you've got leaks coming out of it and do
14 the low-water cutoff test.

15 So his interpretation was it was more
16 important to do the external operation inspections
17 on these heat boilers than an internal inspection.

18 They do the internals -- I agree that
19 we need to do the internals on these new boilers,
20 but then going back to the Chief and how much of
21 the internal that we actually needed to do.

22 Especially in these closed-loop systems, it's like
23 a radiator in a car. If they're treated properly,
24 it's just like a radiator in a car circulating.
25 As long as it's being treated properly -- which

1 it's not always being treated properly. Okay? I
2 know how that is. So, you know, you go up and
3 it's full of gunk and you go and look at it and
4 all this gunk is in there, and it's supposed to be
5 a closed-loop system. Well, we haven't had the
6 stuff to put in there like we're supposed to put
7 in there, so it don't get put in there. So you
8 put water in the radiator, basically, and that's
9 how it...

10 So I just added my two cents to it.
11 Appreciate it.

12 CHAIRMAN MORELOCK: Thank you,
13 Mr. Bowers.

14 MR. BAUGHMAN: I'll reply to
15 that, Mr. Bowers. Dave Baughman.

16 And just like your car radiator, you
17 don't know if it's low on fluid unless you do
18 what? Take the cap off and look inside.

19 And so that's kind of what we're
20 getting at, is you don't know what it looks like,
21 you don't know where the level is at unless you
22 make an inspection and look at it.

23 We make assumptions that it's a
24 closed-loop system, but we've got closed-loop
25 systems that have leaks. The water pipes go out,

1 they go out through the ball field and through the
2 parking lot and what have you. And we bring this
3 junk back into the system, and the systems get
4 filled up. The boiler gets filled up.

5 We've got schools presently within
6 the Middle Tennessee area that the boilers are
7 shot because of the piping itself being the
8 problem. And they put a new boiler in and the
9 problem still exists. They've got to take care of
10 other issues.

11 But you don't know unless you look
12 inside, and that's what this discussion is. Thank
13 you for that input. Appreciate you.

14 CHAIRMAN MORELOCK: Any other
15 comments?

16 (No verbal response.)

17 CHAIRMAN MORELOCK: All right.
18 Thanks for all the input. As you can tell, this
19 is going to -- as it's already been stated, we're
20 not going to solve this by the June meeting, but
21 certainly, the Board is certainly open for
22 suggestions and information from your experience
23 of inspections as well. So we'll take that
24 information as we develop this item. So thank
25 you.

1 MR. BAUGHMAN: I would like to
2 say thank you to everybody, too, for their input
3 on this, and the length of time of bringing this
4 up. Appreciate it.

5 CHAIRMAN MORELOCK: Okay.
6 That takes us to announcement of the next meeting.
7 The next Board of Boiler Rules Meeting will be at
8 9:00 a.m. on June 15th, 2022, here at the State of
9 Tennessee Department of Labor.

10 And the last item on our agenda is
11 adjournment. So thank you all for participating
12 and presenting, and your knowledge and input. And
13 it's just good to see people. And I'm glad COVID
14 numbers are low, and it's nice to see people
15 without a mask on.

16 I hope everybody travels safe, and
17 thank you for your time. This meeting is
18 adjourned.

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END OF THE PROCEEDINGS.

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C E R T I F I C A T E

STATE OF TENNESSEE)
COUNTY OF WILLIAMSON)

I, Cassandra M. Beiling, a Notary Public
in the State of Tennessee, do hereby certify:

That the within is a true and accurate
transcript of the proceedings taken before the
Board and the Chief Inspector or the Chief
Inspector's Designee, Tennessee Department of
Labor & Workforce Development, Division of
Workplace Regulations and Compliance, Boiler Unit,
on the 16th day of March, 2022.

I further certify that I am not related to
any of the parties to this action, by blood or
marriage, and that I am in no way interested in
the outcome of this matter.

IN WITNESS WHEREOF, I have hereunto set my
hand this 26th day of May, 2022.



Cassandra M. Beiling

Cassandra M. Beiling, LCR# 371
Notary Public State at Large
My commission expires: 3/10/2024

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