APPEARANCES:

Brian Morelock, Chairman
Owner-User Representative

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

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

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

Chris O'Guin, Chief Boiler Inspector

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

Thomas Herrod
Assistant Commissioner, State of Tennessee

Daniel Bailey, Esq.
Legal Counsel, State of Tennessee

Dewayne Scott
Deputy Commissioner, State of Tennessee

Jamie Diefenbach
Executive Admin. Assistant, State of Tennessee

Michelle Irion
Boiler Board Secretary, State of Tennessee

Stone & George Court Reporting
615.221.1089
Guest Appearances:

ECS Consulting
Marty Toth

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

** Reporter's Note: All names are spelled phonetically unless otherwise provided to the Reporter by the parties.
A G E N D A

I. Call Meeting to Order

II. Introductions and Announcements

III. Adoption of Agenda

IV. Approval of the January 16, 2021 Meeting Minutes

V. Chief Boiler Inspector's Report

VI. Variance Report

VII. Old Business
   None

VIII. New Business
   22-18 Lamberti Synthesis

IX. Rule Case & Interpretations
   BI 21-02 ECS Consulting, LLC

X. Open Discussion Items
   David Baughman
   Tennessee Code Annotated 68-122-110

XI. Announcement of Next Meeting
   Unless the Board decides otherwise, the next regularly scheduled meeting of the Board of Boiler Rules will be held 9:00 a.m. on June 15, 2022, at the State of 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.

XII. Adjournment
Good morning, everybody. I'll call this meeting to order of the Tennessee Board of Boiler rules for the March meeting. And if you don't have an agenda, they're on the back table, and so you're welcome to that.

We do have some refreshments if you would like.

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

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

MR. HENRY: Jeff Henry, board member.

CHAIRMAN MORELOCK: Brian Morelock, Board Chair.

MR. BAUGHMAN: Dave Baughman, board member.

MS. MEDLEY: Jennifer Medley, WRC.
MR. SCOTT: Dewayne Scott, Deputy Commissioner. The Department.

MR. BAILEY: Dan Bailey, legal counsel.

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

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

MS. IRION: Michelle Irion, board secretary.

MR. BOWERS: Harold Bowers, retired board member.

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

MR. HICKERSON: Philip Hickerson, Deputy Inspector.

MR. STRICKLAND: Greg Strickland, State Inspector.

MR. LARRY RITTER: Larry Ritter, Sompo International.

MR. COURSON: Steven Courson.

I'm the Director of Process Safety and Mechanical Integrity for Wacker Corporation.

MR. HAYNES: Brandon Haynes.

I'm an engineer with Industrial Boiler &
Mechanical.

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

CHAIRMAN MORELOCK: Thank you all.

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

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

Are there any other announcements that anybody needs to make?

(No verbal response.)

CHAIRMAN MORELOCK: Okay.

That takes us to Adoption of the Agenda. So do I have a motion to accept the agenda?

MR. HENRY: So moved.
CHAIRMAN MORELOCK: I've got a motion.

MR. BAUGHMAN: Second.

CHAIRMAN MORELOCK: Second.

Any discussion, comments, positions?

(No verbal response.)

CHAIRMAN MORELOCK: All right.

All in favor say "aye."

(Affirmative Response.)

CHAIRMAN MORELOCK: Opposed, abstentions, not voting?

(No verbal response.)

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

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

MR. O'GUIN: Chairman?

CHAIRMAN MORELOCK: Yes?

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

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

MS. IRION: Sorry about that.
I just noticed it.

CHAIRMAN MORELOCK: Okay.

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

MS. IRION: It was originally the 16th.

CHAIRMAN MORELOCK: Right.

Okay. So that is the January 27th.

MS. IRION: Correct.

CHAIRMAN MORELOCK: All right.

Very good.

MR. HERROD: 22.

CHAIRMAN MORELOCK: Yeah, 2022. So any --

MR. HERROD: January 22.

CHAIRMAN MORELOCK: Oh, is it 22?

MS. IRION: It is.

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

MR. HERROD: Correct.

CHAIRMAN MORELOCK: Instead of 2021?

MR. HERROD: Yes.
CHAIRMAN MORELOCK: All right.

We'll go for that. All right.

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

(No verbal response.)

CHAIRMAN MORELOCK: All right.

I'm going to call the vote.

All in favor say "aye."

(Affirmative Response.)

CHAIRMAN MORELOCK: Opposed, abstentions, not voting?

(No verbal response.)

CHAIRMAN MORELOCK: All right.

We have approved the January 22, 2022 meeting minutes.

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

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

MR. O'GUIN: Thank you, Chairman.

If you can see the graphs, Chairman, the orange is for state inspections. It shows you the difference in inspections since 2015. For the current year of 2022, we're at 10,046 inspections.

We're tracking to 15,830, which will be a little
bit above last year.

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

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

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

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

For variances, we've got 89 active; 8 inspections performed this quarter and 8 passed. We have 12 board-approved variances awaiting the company for inspection. Those are not ready. We follow up every 30 days.
CHAIRMAN MORELOCK: Any questions or comments from the Chief's report?

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

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

CHAIRMAN MORELOCK: Any other questions or comments?

(No verbal response.)

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

MR. O'GUIN: I just gave it.

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

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

That takes us to new business, which is Item 22-18. Lambert Synthesis requests consideration for approval of a variance to the
boiler attendant requirement.

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

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

(No verbal response.)

CHAIRMAN MORELOCK: The Board has no conflicts.

MR. BAILEY: Mr. Chairman?

CHAIRMAN MORELOCK: Yes?

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

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

MR. RUDER: Hi. I'm William Ruder with Lamberti Synthesis. I'm a project
manager. We're located in Chattanooga, Tennessee. We make polyol surfactants, emulsifiers, demulsifiers. A lot of those are used in detergents, waxes, hardening concrete, additives in oil drilling and oil processing. The plant was Greenfield in 1999 and it started up in 2001. Lamberti purchased the facility in December of '06. It was originally Synair.

CHAIRMAN MORELOCK: Do I have a motion to discuss?

MR. HENRY: So moved.

CHAIRMAN MORELOCK: Thank you.

So we have a motion to discuss.

MR. BAUGHMAN: Second.

CHAIRMAN MORELOCK: All right.

What comments or questions does the Board have of this proposed variance?

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

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

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


MR. BAUGHMAN: 2001. So are
the boilers of that same age? I didn't see the
eyear of the boilers. I just see the model numbers
and theserials. Are they both '99s or 2000
models, or thereabouts?

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

MR. BAUGHMAN: And what year
was that?

MR. HAYNES: Sorry, I forgot.

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

MR. HAYNES: Yes, sir.

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

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

MR. HAYNES: I don't believe I
do, Mr. Baughman. I'll make a note.
MR. BAUGHMAN: And that's all right. And it's just more for my informational purposes, for our purposes here and so forth. So we've got the used boiler for the CB been retubed, and it's gone through all the R-1s and so forth on it, and application for installing a secondhand boiler and so forth.

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

MR. RUDER: That sounds correct, yes.

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


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

Getting into the kind of meat and potatoes, I had a question as far as the procedure goes for the heat-recovery boiler, in particular,
on its checking of the low water. So I would like you to explain to me how the heat-recovery boiler is checked, or doing a positive check of the low-water cutoff. And I'm asking this because in the manual, it talks about having a shunt, a low-water cutoff shunt, that's simulating but not actually going through the procedure of a low-water -- in other words, it's a low-water bypass. It's just checking the low water, but it's not actually doing a function of a low-water check. And it's putting the TOX dump stack -- you have to put it in the manual position when you're doing this. And then when it's finished, it goes to the automatic.

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

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

MR. HAYNES: And you're
correct, we're not physically shutting the boiler down. That's our request, yes.

    MR. RUDER: Well -- okay.

Yeah, lifting the stack shuts the boiler down.

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

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

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

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

    MR. BAUGHMAN: And for those that don't know, what we're looking at is this dump valve has to do with the heat source. So
what we're doing is we're not -- presently, we're not checking the heat source cutting off automatically. We're manually cutting off the heat source when we're doing a blow-down of the equipment. And then when we're done with the blow-down, we're putting it back into automatic, and then proceeding on with the operation. But we're never checking it in real-life operation to make sure that that mechanism bypasses the heat source as it's supposed to do.

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

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

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

MR. HAYNES: So I think what you're getting at, we'd be better off to trip the manual -- the automatic capabilities, we'd trip
that, I guess, daily or whatever you guys would
like to see.

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

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

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

I'll leave that open for more
discussion as I look at some other questions. I
didn't want to beat that too hard, but that was
probably one of the bigger ones that I had.

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

MR. RUDER: Correct.

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

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

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

MR. RUDER: Yes, for the
alarms. But like you said, the e-stops aren't
hardwired directly.
MR. BAUGHMAN: Sure. Are those -- so is there also a -- the alarms come up on a screen?

MR. RUDER: Correct.

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

MR. RUDER: No.

MR. BAUGHMAN: Okay.

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

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

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

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

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

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

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

MR. HAYNES: I mean, we just list a flame fail here for the Donlee. It's the only, I guess, boiler-specific alarm that we've
MR. RUDER: Yeah, the flame fail and the low waters.

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

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

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

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

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

MR. HAYNES: Yes, sir.

CHAIRMAN MORELOCK: Don't you
agree?

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

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

MR. HAYNES: Yes, sir.

MR. BAUGHMAN: But we need to make it more inclusive. Thanks, guys.
MR. HAYNES: Thank you.

CHAIRMAN MORELOCK: Is that all your comments?

MR. BAUGHMAN: Yes.

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

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

MR. HENRY: No.

CHAIRMAN MORELOCK: No?

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

And so we don't necessarily have the ability to review that on this front end, to look at that procedure and how they're going to be
changing it. So they're saying they're going to change it, but how do we look at that, review it, approve it, or do we have them do that and somebody else reviews it and says it's good, or how do we move forward with that?

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

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

MR. BAUGHMAN: Yes.

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

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

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

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

MR. BAUGHMAN: It has BTUs in it from the process that, instead of having a
burner per se as a boiler would, it's using a waste stream that has BTUs. And it typically comes off of what we call a thermal oxidizer.

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

MR. BAUGHMAN: It's good with myself.

CHAIRMAN MORELOCK: Okay.

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

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

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

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

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

MR. RUDER: I can certainly do that. Yes, sir.
CHAIRMAN MORELOCK: Okay. All right. Very good. Any other questions or comments?

(No verbal response.)

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

MR. HENRY: So moved.

CHAIRMAN MORELOCK: I've got a motion.

MR. BAUGHMAN: Second.

CHAIRMAN MORELOCK: Last call for comments.

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

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

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

MR. HENRY: Okay. Thank you.
CHAIRMAN MORELOCK: Any other comments?

(No verbal response.)

CHAIRMAN MORELOCK: All right.

All in favor say aye.

(Affirmative response.)

CHAIRMAN MORELOCK: Opposed, abstentions, not voting?

(No verbal response.)

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

MR. RUDER: Thank you.

MR. HAYNES: Thank you, gentlemen.

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

And so I'm going to let Mr. Toth present this.
MR. TOTH: Thank you,
Mr. Chairman. Members of the Board, can you hear
me okay?

(Affirmative response.)

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

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

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

CHAIRMAN MORELOCK: Yes.

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

In light of the interpretations that
were put out for high-pressure boilers,
Mr. Baughman made a wonderful suggestion some time
ago to look at low-pressure boilers and to separate that into its own interpretation. So we are doing so in this case.

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

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

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

    CHAIRMAN MORELOCK: Yeah, that's fine.

    MR. TOTH: All right. So Inquiry Number 1, what we have is, "In the state
of Tennessee, is it required that all locations
operating a low-pressure boiler at 400,000 BTUs
per hour or greater and built under Section IV of
the ASME Code and possessing the 'H' stamp be
connected to a manually operated remote shutdown
switch or circuit breaker?"

    And the reply is yes.

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

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

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

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

Inquiry Number 2: "In the state of
Tennessee, is it required that all locations
operating a low-pressure boiler at 400,000 BTUs
per hour or greater and built under Section IV of
the ASME Code, and possessing the 'HLW' stamp be
connected to a manually operated remote --
(indiscernible).

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

THE REPORTER: (Indicating.)
CHAIRMAN MORELOCK: Can I
interrupt just for a minute?

THE REPORTER: I didn't pick
up that whole last part.
CHAIRMAN MORELOCK: Cassandra
can't hear you well enough to record your minutes
here, so can you speak more clear?

MR. TOTH: Okay. I don't know
what to do about that. Do we need to turn up? Do
we -- just tell me what I need to do.
MR. HERROD: Mr. Toth, can you
speak up and slow down just a little bit?
MR. TOTH: Sure. I'll do my
very best.
MR. HERROD: The screen is a
little small. If you could enlarge it for those
who don't have a handout, if that's an option for
you, so we can see these things.
MR. TOTH: Are you asking me
to increase the size? Is that...

MR. HERROD: Yes, sir.

MR. TOTH: Okay. All right.

And you're asking me to speak up?

MR. HERROD: Yes.

MR. TOTH: So I'll try to do my best. I'm actually in a lobby.

MR. HERROD: Audio up and speed down. Audio up and speed down.

MR. TOTH: Okay. So kind of tell me when -- am I loud enough now?

THE REPORTER: (Indicating.)

MR. TOTH: Yes? Kinda sorta?

I see Cassandra kind of shaking her head, nodding a little bit.

I don't really know what else to do.

I have my ear buds in, so I'm going to keep going and then you just tell me if I need to repeat something. How does that sound?

CHAIRMAN MORELOCK: Okay.

MR. TOTH: Okay. I see an affirmative there from our distinguished court reporter, so I will keep going.

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

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

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

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

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

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

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

Inquiry Number 6, previously Number 7, "In the state of Tennessee, is it required for all low-pressure boilers installed in
a location, example, boiler room, mechanical room, facility location, et cetera, to be electrically connected to a single manually operated remote shutdown switch, i.e., e-stop, installed at the point of egress, where the activation of the switch shall actuate the master fuel trip relays on all the boilers within the location?"

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

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

The reply is yes.

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

The reply is yes.

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

And the reply is yes.

And Mr. Chairman, that is the presentation.

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

MR. HENRY: So moved.

CHAIRMAN MORELOCK: Thank you.

MR. BAUGHMAN: Second.

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

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

CHAIRMAN MORELOCK: Okay.

Chief O'Guin?

MR. O'GUIN: Inquiry 6 talks
about the single switch for all boilers in the
boiler room. I would recommend going like the
high-pressure interpretation is, where the reply
would be yes. However, you can request approval
from the Chief Inspector.

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

MR. O'GUIN: Yes, sir.

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

MR. O'GUIN: Yes, sir.

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

CHAIRMAN MORELOCK: I agree
with that.

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

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

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

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

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

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

MR. TOTH: Okay. I see...

Unfortunately, I'm seeing Number 3 on my screen. Maybe it's just a lag. Is that possible?

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

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

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

MR. TOTH: Here it is.

MR. HENRY: Okay. Yes.
CHAIRMAN MORELOCK: There you go.

MR. TOTH: Okay.

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

MR. TOTH: Okay.

MR. HENRY: Thank you.

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

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

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

MR. HENRY: Thank you.

CHAIRMAN MORELOCK: What other questions or comments?

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

MR. TOTH: I'm doing fine.
How are you?

MR. BAUGHMAN: Glad for another day.

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

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

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

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

MR. BAUGHMAN: Okay. So hot water supply boiler. And I guess my question is, is we're in the industry and we're explaining this code to others, and we're trying to -- the code states "low-pressure boiler," and we're trying to describe to them that it's a hot water heater. I'm just wanting to make it as easy as possible to explain this wording to somebody to make it as understandable as possible. I didn't know if we
could change that to hot water supply boilers and
hot water heaters versus low-pressure boiler,
which most interpret as a low-pressure steam
boiler or a hot water heating boiler.

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

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

MR. TOTH: That's right.

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

MR. TOTH: Okay. Okay.

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

MR. TOTH: Okay. Yeah, we can
definitely do that. I do know that there -- if
I'm not mistaken, there is a definition within the
rules and regulations that identify the hot water
supply boilers. So I think by putting that in
there, it would satisfy your concerns. So we can
just add the words "possessing an H-stamp." And
please, we can -- I don't know if this is catching
up to you as I'm typing or...

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

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

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

MR. TOTH: Okay. I'm sorry.

MR. O'GUIN: Chairman, can

Marty just read it to us since it's not catching
up with our screens?

MR. TOTH: I'm sorry. You

kind of -- you just kind of came back out. I hear
you now, so can you repeat that, Chief O'Guin?

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

MR. TOTH: It's not? Okay.

Let's see if we can get this thing to work. And I do apologize for not being there in person. We'll see if we can make it work. I'm going to do this, and then I'm going to try to read it. Has it made it over yet?

CHAIRMAN MORELOCK: Not yet.

Chief O'Guin's recommendation was for you just to read it and see if we agree with the revision. You can just read it.

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

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

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

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

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

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

MR. BAUGHMAN: I believe so.

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

CHAIRMAN MORELOCK: Okay.
That will help anyone -- those interpretations are open for anyone to view and read those, so I think that will be helpful, especially --

MR. TOTH: I think it would.

CHAIRMAN MORELOCK: -- what

we've done in the past to have parenthetical references to the ASME Code and NBIC.

Any other questions or comments?

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

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

I was interested in putting "each route" instead of "along." Even though we've got the routes with an "s" on the end of it, making sure that they understood that it's each route and not just -- and it just adds to the "s" on the end
of "routes" and "boilers." But it makes it very specific that it's each route of pedestrian egress. What's your thoughts?

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

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

     MR. BAUGHMAN: Yes, sir.

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

     MR. BAUGHMAN: I believe --

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

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

     MR. BAUGHMAN: "Each," please.

     Or just "each."

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

     MR. BAUGHMAN: Yes, sir.
MR. TOTH: Is that -- okay.

It's done.

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

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

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

I want to make it to where they are not allowed to continue to operate the pilot also.
MR. TOTH: Since I don't know if it's catching up as I'm typing -- I don't think it is, so what I'm doing is under the reply for the new Number 5 is to put "No," semicolon, "the switch need only shut off all the fuel to the boiler, i.e., burner, pilot -- burner combo pilot." Does that look satisfactory?

MR. BAUGHMAN: Yes, sir.

Thank you.

MR. TOTH: Good suggestion.

Thank you.

CHAIRMAN MORELOCK: Any other questions or comments?

(No verbal response.)

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

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

MR. HENRY: Second.

CHAIRMAN MORELOCK: Any other last comments or questions?

(No verbal response.)

CHAIRMAN MORELOCK: Hearing none, I'm going to call the question. All in favor say "aye."
(Affirmative Response.)

CHAIRMAN MORELOCK: Opposed,
abstentions, not voting?

(No verbal response.)

CHAIRMAN MORELOCK: You have
an approved interpretation.

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

CHAIRMAN MORELOCK: Very good.

Thank you, Mr. Toth.

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

CHAIRMAN MORELOCK: All right.

So that concludes our rule cases and
interpretations.

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

So Mr. Baughman, it's all yours.

MR. BAUGHMAN: Thank you, Chairman.

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

So our code is specific inasmuch as the annotated -- Tennessee Code Annotated 68-122-110(a)(2). What we want to do is get everybody on the same page. And as much as this code specifically says that these boilers "shall" be inspected -- not "should," but "shall" -- both internally and externally biannually where construction permits, well, that's where the issue
comes up, is the construction permitting. And that's somewhat interpretive between the customer, the inspector, and the contractor. And so, then, how do you determine whether the boiler can be inspected or not?

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

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

But there's been interpretations, personal interpretations in the industry of what can be looked at and what doesn't get looked at.
And we just wanted to bring this up for discussion so that everybody gets on the same page that it is part of our code that these boilers will be, shall be, inspected where construction permits.

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

MR. TOTH: Mr. Chairman?

CHAIRMAN MORELOCK: Yes, Mr. Toth.

MR. TOTH: I would like to interject on this. I think this is a wonderful discussion item. This is something that has been a problem -- and I call it that purposefully -- a "problem" for years. I just don't know what the solution is. And the reason why it's a problem is because it requires a decision to be made at the inspector level. And what I mean by that is very similar to what Mr. Baughman alluded to is that some inspectors are familiar with certain boilers and they may not be familiar with other construction types of boilers.
But with -- if we were to say -- let me use an example. If we were to say that a Cleaver-Brooks firetube boiler was a low-pressure boiler, you know, every inspector out there should know exactly what the construction is on that particular boiler. So that would be an easy call versus a low-pressure unit such as a Lochinvar or something of that type.

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

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

So you're going to run into an issue with stating that the boiler is going to be inspected, a low-pressure boiler, once every two years. And if that's the case, it's very difficult, not only time-wise but also
financially, for the insurance companies to send
an inspector back out at a separate occasion to do
an internal inspection when a certificate has
already been issued for an external inspection on
that low-pressure boiler.

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

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

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

CHAIRMAN MORELOCK: Thank you,
Mr. Toth.

Chief O'Guin?
MR. O'GUIN: Thank you, Chairman.

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

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

MR. BAUGHMAN: Yes, Chief.

I'm good with that, and I appreciate Mr. Toth's input. In reading ASME, ASME has recommendations for the care of low-pressure boilers. And in that, there's two different sections. One of them says if at all possible you shouldn't drain the
unit, and never should you have to drain the whole system. The problem with an internal on some of these boilers, they don't have the header valves on the -- in particular, on hot water boilers, they don't have a header valve on the supply and the return, which they should.

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

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

And so then the insurance company gets involved. The insurance company declines a claim. We come back and say, "Well, but the boiler hadn't been opened up internally as
required by our State code." They go back and find out yes, that's the case. Then they have to pay the claim because the boiler wasn't inspected properly.

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

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

So typically, you would want to, on a heating boiler, do your internal during the summer months and do your external while the boiler is running during the winter months. It's when the
boiler is running. You wouldn't want to do an
external inspection on a boiler that is not
running, as you're there to check the controls and
the operations. So you've got to mold it per each
installation.

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

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

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

CHAIRMAN MORELOCK: Yes,

Mr. Toth.

MR. TOTH: The biggest issue
that I've seen in my time -- and I think
Mr. Baughman can attest to this on these
low-pressure boilers -- is the steam boiler. The
hot water boiler, yes, definitely, there's problems there. But it's the steam low-pressure boiler that does not get that internal inspection, especially in regards to a section of boilers like cast-iron boilers, so on and so forth, that are steam cast-iron boilers less than 15 PSI that have fresh water makeup coming in, lack of water treatment, things of that nature, high levels of scale buildup. Those definitely, we need to have something in place that can guide the inspectors.

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

And I think that it would help if we guided or the State guided those installations and said yes, you will be able to isolate this boiler
so we can do things like low-water cutoff tests
and things of that nature on the boiler.

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

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

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

CHAIRMAN MORELOCK: Thank you, Mr. Toth.

Any more -- yes, Mr Bowers.

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

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

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

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

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

But if you talk to a contractor, he's
always going to say -- like, you go to a car shop
and say, "Should I replace my brakes?" He's
always going to want to say yes, replace your
brakes. And so if you talk to a contractor, he's
always going to say, "Let's do this." But it
still falls back to how the Chief feels about it,
what the situation is. He's going to have to make
that call.

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

So his interpretation was it was more
important to do the external operation inspections
on these heat boilers than an internal inspection.
They do the internals -- I agree that
we need to do the internals on these new boilers,
but then going back to the Chief and how much of
the internal that we actually needed to do.
Especially in these closed-loop systems, it's like
a radiator in a car. If they're treated properly,
it's just like a radiator in a car circulating.
As long as it's being treated properly -- which
it's not always being treated properly. Okay? I know how that is. So, you know, you go up and it's full of gunk and you go and look at it and all this gunk is in there, and it's supposed to be a closed-loop system. Well, we haven't had the stuff to put in there like we're supposed to put in there, so it don't get put in there. So you put water in the radiator, basically, and that's how it...

So I just added my two cents to it.

Appreciate it.

CHAIRMAN MORELOCK: Thank you, Mr. Bowers.

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

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

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

We make assumptions that it's a closed-loop system, but we've got closed-loop systems that have leaks. The water pipes go out,
they go out through the ball field and through the
parking lot and what have you. And we bring this
junk back into the system, and the systems get
filled up. The boiler gets filled up.

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

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

CHAIRMAN MORELOCK: Any other
comments?

(No verbal response.)

CHAIRMAN MORELOCK: All right.

Thanks for all the input. As you can tell, this
is going to -- as it's already been stated, we're
not going to solve this by the June meeting, but
certainly, the Board is certainly open for
suggestions and information from your experience
of inspections as well. So we'll take that
information as we develop this item. So thank
you.
MR. BAUGHMAN: I would like to say thank you to everybody, too, for their input on this, and the length of time of bringing this up. Appreciate it.

CHAIRMAN MORELOCK: Okay.

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

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

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

END OF THE PROCEEDINGS.
CERTIFICATE

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