STATE OF TENNESSEE
DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
BOARD OF BOILER RULES

QUARTERLY MEETING OF THE
STATE OF TENNESSEE
BOARD OF BOILER RULES

September 18, 2019

CASSANDRA M. BEILING, LCR# 371
STONE & GEORGE COURT REPORTING
2020 Fieldstone Parkway
Suite 900 - PMB 234
Franklin, Tennessee 37069
615.221.1089
APPEARANCES:

1. Brian Morelock, Chairman
   Owner-User Representative
2. David W. Baughman
   Owner-User Representative
3. Allied Boiler & Supply, Inc.
   4006 River Lane
   Milton, Tennessee 37118
4. Harold F. Bowers
   Insurance Representative
   Centerville, Tennessee
5. Terry Fox
   Boilermaker Representative
   Chattanooga, Tennessee
6. Dr. S. Keith Hargrove
   Mechanical Engineer Representative
   Goodlettsville, Tennessee
7. Sam Chapman, Chief Boiler Inspector
8. Chris O’Guin, Boiler Inspector
9. Thomas Herrod
   Assistant Commissioner, State of Tennessee
10. Daniel Bailey, Esq.
    Legal Counsel, State of Tennessee
11. Carlene Bennett
    Board Secretary, State of Tennessee

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- 19-20 GRACE

AGENDA

I. Call Meeting to Order
II. Introductions and Announcements
III. Adoption of the Agenda
IV. Approval of the June 12, 2019 Meeting Minutes

V. Chief Boiler Inspector’s Report
VI. Variance Report

VII. Old Business
- 19-8 Parkwest Medical Center
(moved to 12/11/19 meeting)

VIII. New Business
- 19-14 American Snuff Company
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- 19-16 Carlex Glass America, LLC
- 19-17 Hokuon Tires U.S. Operations, LLC
(moved to 12/11/19 meeting)
- 19-18 Quintus Technologies, LLC
- 19-19 Uniliever NAIC - Covington Plant
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IX. Rule Case & Interpretations
- BI 19-01 ECS Consulting, LLC requests interpretations

X. Open Discussion Items
   - * Doris Barnett - Jurisdiction Online report
   - * Deborah Rhone - 2019 & 2020 Tennessee Boiler Safety Conference update

XI. Announcement of Next Meeting
The next regularly scheduled meeting of the Board of Boiler Rules will be held at 9:00 a.m. (CST) on Wednesday, December 11, 2019, at the State of Tennessee Department of Labor & Workforce Development building, located at 220 French Landing Drive, Nashville, Tennessee.

XII. Adjournment.

** Reporter’s Note: All names are spelled phonetically unless otherwise provided to the reporter by the parties.**
·1· board member.
·2· · MR. BAUGHMAN: Dave Baughman, board
·3· member.
·4· · MR. BOWERS: Harold Bowers, board
·5· member.
·6· · MR. HERROD: Tom Herrod, assistant
·7· commissioner.
·8· · MR. BAILEY: Dan Bailey, legal
·9· counsel.
10· · And I would also like to take this
11· moment to remind everybody that this is being
12· transcribed, and as we discuss items to not talk
13· over each other. Let the person asking the
14· question ask the question before you start
15· answering and things of that nature so that the
16· record is clean.
17· · MR. REBER: I'm Rick Reber
18· representing Quintus Technologies.
19· · MR. CANON: Jason Canon, CoorsTek.
20· · MS. RHONE: Deborah Rhone, boiler
21· office supervisor.
22· · MR. NEVILLE: James Neville,
23· Neville Engineering.
24· · MR. NICHELSON: Pete Nichelson,
25· representing Unilever.

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1· personnel in the building who will escort the
2· attendees to a safe place either in the building
3· or exiting the building on the Rosa Parks side if
4· need be.
5· · As a courtesy to the presenters and
6· to the board, I would ask that you silence your
7· cell phones. And if you need to step out and take
8· a quick phone call or something, that will be
9· fine.
10· · And are there any other announcements
11· that need to be made?
12· · (No verbal response.)
13· · CHAIRMAN MORELOCK: All right.
14· · Hearing none, we'll go to Item 3, which is
15· adoption of the agenda.
16· · I do have some corrections to the
17· agenda that I would like to add at this time.
18· Under Old Business, Item 19-8 Parkwest Medical
19· Center, they have asked to move this item from the
20· September meeting to the December 11th, 2019
21· meeting.
22· · The next item would be Item 19-17,
23· Nokian Tyres. They, too, have requested to move
24· this item from the September meeting agenda to the
25· December 11th, 2019 meeting. And Item 19-21, it

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1· has also been asked to move this item from the
2· September meeting to the December 11 meeting
3· agenda.
4· · Are there any other additions or
5· corrections to the agenda?
6· · (No verbal response.)
7· · CHAIRMAN MORELOCK: Hearing none,
8· do I have a motion to adopt the agenda as
9· altered/changed?
10· · MR. BOWERS: Motion to adopt.
11· · MR. BAUGHMAN: Second.
12· · CHAIRMAN MORELOCK: Any other
13· discussion?
14· · (No verbal response.)
15· · CHAIRMAN MORELOCK: I'll call the
16· question. All in favor, say aye.
17· · (Affirmative response.)
18· · CHAIRMAN MORELOCK: Opposed?
19· · (No verbal response.)
20· · CHAIRMAN MORELOCK: Abstentions?
21· · (No verbal response.)
22· · CHAIRMAN MORELOCK: Not voting?
23· · (No verbal response.)
24· · CHAIRMAN MORELOCK: We have an
25· approved agenda.
And not to leave Ms. Doris out, Ms. Doris Barnett stepped in, so she is with us at this time. So welcome.

MS. BARNETT: Thank you.

CHAIRMAN MORELOCK: All right. The next item is Item 4, approval of the June 12, 2019 Tennessee board minutes. I hope you had a chance to review those. Are there any corrections/ revisions to the minutes?

(No verbal response.)

CHAIRMAN MORELOCK: Hearing none, do I have a motion to accept these minutes?

MR. BAUGHMAN: So moved.

CHAIRMAN MORELOCK: Do I have a second?

MR. BOWERS: Second.

CHAIRMAN MORELOCK: Any discussions, questions?

(No verbal response.)

CHAIRMAN MORELOCK: Hearing none, I'll call the question. All in favor say aye.

(Affirmative response.)

CHAIRMAN MORELOCK: Opposed?

(No verbal response.)

CHAIRMAN MORELOCK: Abstentions?

(No verbal response.)

CHAIRMAN MORELOCK: Not voting?

(No verbal response.)

CHAIRMAN MORELOCK: We have approved minutes. That takes us to Item 5 on the agenda, the chief boiler inspector's report. I'll turn that over to Chief Boiler Inspector Chapman.

MR. CHAPMAN: Thank you.

Our number of inspections, state inspectors performed, 3,898. The insurance agents performed 4,994, giving us a total of 8,892. Total delinquent: Number of vessels is we have 71,776; state inspectors with delinquent is 1,188; insurance agents is 388, giving us a total delinquent 1,576.

Number of code violations:
Violations found was 35; uncorrected violations was 17.

This report is covering from April through June of 2019. The variance report will be performed by -- reported on by Assistant Chief Chris O'Guin.

We have a new inspector, Mike McKee. McKee will cover the West Tennessee area.

That is the chief's report.

CHAIRMAN MORELOCK: Any questions or comments about the chief's report?

(No verbal response.)

CHAIRMAN MORELOCK: All right. Thank you.

Mr. Fox, thank you for joining us.

MR. FOX: Thank you, Chairman.

CHAIRMAN MORELOCK: So, good to have you.

Our next item is Item 6 which is the variance report, and we'll let Assistant Chief O'Guin report on that.

MR. O'GUIN: Thank you, Chairman.

As of to date, we have 120 known variances, 7 that require a follow-up inspection, 62 are active, 10 require a reinspection, and 41 are dormant.

Last quarter we completed 4 variance audits with 4 approved: UT Memphis, Buckman, Tenova North, and Murray Regional.

That's all.

CHAIRMAN MORELOCK: Any questions or comments about the variance report?

MR. BOWERS: I notice there's a big difference between active and dormant. How do we get the ones that are dormant -- I mean --

MR. O'GUIN: Dormant means they've never reapplied for a variance. It's ones that in the past have had a variance and they've never reapplied for it.

MR. BOWERS: So we just carry that number forever?

MR. O'GUIN: We just keep it on there, yes.

CHAIRMAN MORELOCK: Okay. Any other questions or comments?

(No verbal response.)

CHAIRMAN MORELOCK: Good question.

Any other questions or comments?

(No verbal response.)

CHAIRMAN MORELOCK: All right.

Thank you, sir.

Moving on to Item 7, which is old business. And we've already moved that to the December meeting, so we'll move on to Item 8, which is new business.

And before I get into the new business, I did want to say when you come up to
present your item, speak clearly so we can record
your presentation, and we also -- let's give these
presenters courtesy. As Mr. Bailey said, let's
talk over each other, and give them an
opportunity to present. People in the audience
are able to make comments and ask questions as
well.

19-14 American Snuff is requesting a
variance for five high-pressure boilers.
So if you'll introduce yourself and
present your item.

MR. BAILEY: Mr. Chairman, any
conflicts?

CHAIRMAN MORELOCK: Thank you.
Are there any conflicts?
(No verbal response.)

CHAIRMAN MORELOCK: All right. Go
ahead.

MR. TOTH: Thank you, Mr. Chairman, members of the board. My name is Marty Toth. I'm
with ECS Consulting and representing American
Snuff out of Clarksville. I'm honored to have
with me today, also representing American Snuff,
Mr. Will Stewart and Mr. Rupert Kendrick.

Mr. Stewart is the senior manager of
technical support for American Snuff. And as you
will see in the manual, he's also responsible for
the manual updates. Mr. Doss, who is the signer
of the request letter, was unable to attend today.
But Mr. Stewart is well knowledgeable with the
operations and the manual, and will be able to
represent and answer any questions that you have
of him.

Also, Mr. Kendrick is the production
supervisor that's closely related to the
operations that you will recognize on the org
chart, page 26.

As was mentioned, American Snuff has
five high-pressure boilers that operate on their
campus in three separate boiler locations. Of
those, we have three 200 horsepower and two
500 horsepower Cleaver-Brooks boilers. Those
boilers all operate on natural gas.

They also have three low-pressure
boilers, which are mentioned in the manual. As we
all are aware, low-pressure boilers are not
required to be included as a variance; however,
American Snuff has taken upon themself to add
additional safety features for the ability to
emergency stop those boilers at a remote location,
as you can see from the illustration of the remote
panel.

All the boilers operate with the
Honeywell RM7800 Flame Safeguard and also include
the Cleaver-Brooks Hawk ICS system. And they also
have level master controls for additional water
level safety.

The plant, actually, at this time,
operates at a 24/5 period. But as Mr. Stewart and
Mr. Kendrick can elaborate on, it is seasonal. So
if you have any questions about that, they'll be
more than happy to answer those questions.

The remote station for American Snuff is
located at the rear entrance guard house that is
manned 24/7.

As you will also notice, that they
utilize security guards as their boiler guards,
which are and will be qualified boiler attendants
for those off hours.

And I'll be more than happy to answer
any questions you may have.

CHAIRMAN MORELOCK: Do I have a
motion to discuss?

MR. BOWERS: Motion to discuss.
MR. BAUGHMAN: Second.

questions/comments does the board have for this
variance?

MR. HARGROVE: In this particular
report and, I think, maybe upcoming ones, can you
provide clarity between a boiler attendant and
remote attendant with regard to training and
responsibility?

MR. TOTH: Yes. Yes, sir, I can.
But if I may add, that information is located
within the individual sections, of Section 3 for
remote attendant and Section 4, for boiler
attendant.

MR. HARGROVE: Okay.

MR. TOTH: That gives a list of the
information that they will be trained on. And I
would be more than happy to direct that to you at
this time if you would like. So if we were to
look, you will find that information on page 5 for
remote attendant under --

MR. HARGROVE: Page 6 with regard
to duties, right?

MR. TOTH: Let me make sure I've
got the right book. No. It's -- you should be
under page 5 for training. I believe that's what
your question was.

MR. HARGROVE: Okay.

MR. TOTH: So for the remote attendant, here is a list of what the remote attendant will be trained on.

And then under Section 4, if we were to go to page 9, it lists the training requirements for the boiler attendant.

I will mention to you that during the manual review, I did notice that there were a couple of omissions. Number one -- I'll point out now -- they have been changed in the master document and will be revised and sent to the chief.

On page 8, it reads -- under Part B, you will see a list of those individuals at American Snuff that would serve and be qualified as a boiler attendant. I failed to include the boiler guard, which has been added to that list.

And also, the communications and the training of communications is via phone, not radio. So that has been revised as well.

MR. HARGROVE: I did want to also commend the piping configuration graphics. That was well done.

matter if it's presented in December? But if we need to do that, we'll be more than happy to.

CHAIRMAN MORELOCK: Well, probably, the best thing we can do for clarity on the board is we will add that as an agenda item to the December meeting to discuss that as a board.

MR. TOTH: That would be great.

CHAIRMAN MORELOCK: And we'll come up with some guidelines for that.

MR. TOTH: Yeah. Because we want to make sure that we're comfortable with that.

And I'll make sure that this is updated, and I'll have Mr. Doss resign the document and include it into the book.

CHAIRMAN MORELOCK: Okay. Very good.

MR. TOTH: Thank you.

CHAIRMAN MORELOCK: Okay. On Figure 1 for your site plan.

MR. TOTH: Yes.

CHAIRMAN MORELOCK: I am getting old. It's just hard for me to locate the boilers.

MR. TOTH: Okay. Okay.

Absolutely. Absolutely. I do see what you're referring to in the way of the lines. Yes. Would you like for me to point where those are at or...
It says, "Remote attendant can be any position assigned by American Snuff Company management."

So is that just limited to the four positions in Appendix G, or are there other positions that would need to be added to Appendix G, if you're going to say anybody.

MR. TOTH: Right. And that's a very good question. Usually, that's put in as a placeholder for if there's a need to change the process of what those positions would be. And this is an assumption on my part, so please correct me if I'm wrong. As long as those individuals in their job descriptions are sufficient and spell out the responsibilities, it's not necessary to bring that before the board.

CHAIRMAN MORELOCK: I agree.

MR. TOTH: Okay. And so this was a placeholder so if American Snuff chooses to train someone else in those positions, we can do so and then make a revision to the manual and list those.

CHAIRMAN MORELOCK: Okay. And then as far as on page 7, you discuss about actuating an e-stop or resetting an e-stop, it says, by pulling.

MR. TOTH: Uh-huh.

CHAIRMAN MORELOCK: Well, I see it in some of the other manuals.

MR. TOTH: Some of the other manuals, I do -- I try to be very specific as to what the function is. I don't want to say "pull" if it's not pull. I want to --

CHAIRMAN MORELOCK: Okay.

MR. TOTH: Because we're going to train the individuals on the proper function. If we say hey, and they're used to maybe pulling an e-stop, and they go to start pulling on one that's twist, it's not going to pull.

CHAIRMAN MORELOCK: Okay.

MR. TOTH: So I'm very specific about those.

CHAIRMAN MORELOCK: Very good. And that's all the comments I have. What other comments?

MR. BAUGHMAN: Mr. Toth?

MR. TOTH: Sir?

MR. BAUGHMAN: It describes the remote station as being located in the production area.

MR. TOTH: That is another error that was located during manual review that has since been revised.

MR. BAUGHMAN: Okay.

MR. TOTH: I do apologize for that, but I knew that one would get caught.

MR. BAUGHMAN: And the other question I have is that in the manual, it mentions a back gate, but I don't see the back gate on the site plan, so I was curious as to where it's located.

MR. TOTH: Okay. Absolutely. So if you -- in looking at the site plan, in the upper-left area is going to be the administrative building, the offices. So that would be considered the front. The back gate, because -- there is a gate there; however, there is a check-in at the guard station, there, at the admin building.

The back gate is not listed as back gate or rear gate. If you feel that we should title that as rear gate, I would be more than happy to do that.

MR. BAUGHMAN: But where is the rear gate, the back gate as it's described in the manual. Where is it located?
1. MR. TOTH: The guard shack.
2. MR. BAUGHMAN: The guard shack.
3. Okay. Thank you.
4. CHAIRMAN MORELOCK: Any other questions or comments?
5. MR. BAUGHMAN: The e-stops on this, I notice there's quite a distance. Everything is hardwired --
6. MR. TOTH: Oh, yes.
7. MR. BAUGHMAN: -- so we're not doing true communications.
8. MR. TOTH: As a matter of fact, the contractor that was commissioned to do that, I actually walked it with him. So I got my cardio for that day. And so that's all been done hardwired, yes, sir.
10. CHAIRMAN MORELOCK: Any other questions or comments?
11. (No verbal response.)
12. CHAIRMAN MORELOCK: Hearing none, I'm going to call the question. All in favor, say aye.
13. (Affirmative response.)
14. CHAIRMAN MORELOCK: Opposed?
15. (No verbal response.)
16. CHAIRMAN MORELOCK: Abstentions?
17. (No verbal response.)
18. CHAIRMAN MORELOCK: Not voting?
19. (No verbal response.)
20. CHAIRMAN MORELOCK: Gentlemen, you have a contingently approved variance.
21. MR. STEWART: Thank you.
22. MR. KENDRICK: Thank you.
23. CHAIRMAN MORELOCK: That takes us to Item 19-15, Cumberland Medical Center. They're requesting a new variance for four high-pressure boilers.
24. So if you will come forward, introduce yourself, and present your item.
25. MR. TOTH: Thank you, Mr. Chairman. I'm happy to have with me Mr. Jason Cravens. Mr. Cravens is a senior facilities service technician with Cumberland Medical Center out of Crossville, Tennessee. Cumberland Medical Center is a full-service hospital, regional hospital, there in Crossville. Currently, they have four high-pressure boilers that are operating. Three of those are 125-horsepower Kewanees with one 200 horsepower Cleaver-Brooks. They operate on both natural gas with a back-up fuel source of Number 2 fuel oil. Two of the four -- and you will notice that this will be an editorial, so I will explain that here in a moment. But two of the four utilize the Hawkeye E110 Flame Safeguard system with the EP160 programmer module. The other two boilers, Boilers Number 3 and Number 4 in your diagram, utilize the Honeywell RM7800 Flame Safeguard. The Cleaver-Brooks 200 horsepower boiler also has a level master for additional level safety.
26. and a successful site visit by the boiler unit.
27. MR. BAUGHMAN: So moved.
28. CHAIRMAN MORELOCK: Do I have a second?
29. MR. BOWERS: Second.
30. CHAIRMAN MORELOCK: Any further discussion?
31. (No verbal response.)
32. CHAIRMAN MORELOCK: Hearing none, we need a motion to approve this variance contingent on revisions to the manual based on comments made during the Tennessee board meeting and a successful site visit by the boiler unit.
MR. FOX: I'll make a motion to discuss.
MR. BAUGHMAN: Second.
MS. BENNETT: Mr. Morelock, conflicts?
CHAIRMAN MORELOCK: Are there any conflicts on this item?
(No verbal response.)
CHAIRMAN MORELOCK: I'll take that as none.
What questions, comments do you have?
(No verbal response.)
CHAIRMAN MORELOCK: Mr. Toth, the only comments I have is the same editorial I had on the last one. On page 6, you are pushing the button; on page 10, you're activating the button. That's the only comments I have.
Yes, sir.
CHAIRMAN MORELOCK: Any other questions or comments?
MR. HARGROVE: If I may ask, can you describe your daily duties and responsibilities relating to the variance request?
MR. CRAVENS: Daily, I'm usually the first one to arrive, so I do the morning checks, do low-water. We usually run two to three, actively, 24 hours a day, 7 days a week. We do have a little bit of reserve capacity, so we do cycle some and keep them exercised. So I take care of that. I'm responsible for the chemicals, for the conductivity checks and the procedures like that, and then logging the data.
MR. HARGROVE: And that's first shift, second shift, third shift?
MR. CRAVENS: That is first shift.
MR. HARGROVE: Okay. Thank you.
MR. CRAVENS: Thank you.
MR. BAUGHMAN: Mr. Toth?
MR. TOTH: Yes, sir?
MR. BAUGHMAN: Can you direct me? And I haven't been able to -- never mind. I just found it. Thank you. I was looking for the hardwire aspect.
So, sir, you say you check your low waters when you go in.
MR. CRAVENS: Yes, sir.
MR. BAUGHMAN: Primary low water?
MR. TOTH: Yes, sir.
MR. BAUGHMAN: Okay. Does it activate back to the station?
MR. CRAVENS: Yes, sir.
MR. BAUGHMAN: Okay. So your primary low water gives off a boiler alarm and you go through the procedure at that time?
MR. CRAVENS: Yes, sir.
MR. BAUGHMAN: Very good. Thank you.
Under Appendix I on page 34, Boiler Attendant, boiler guard is not listed.
MR. TOTH: Yes, sir. That is another -- it's on my -- from the review that Mr. Cravens and I had yesterday, that was one that I noted in my book and have since revised.
MR. BAUGHMAN: Okay. Are there any other revisions to bring us up to date that might be easier to address than going through on our end?
MR. TOTH: Yes. Yes, it would. I will be more than happy to go through those --
MR. BAUGHMAN: Thank you.
MR. TOTH: -- and see, page by page. I'm lucky I used my red pen.
One of the things that you will notice on page 3, from the illustration itself, when the panel is built, it was designed to have the e-stops above the silence. They were actually -- the silencers were installed above. So that will change. There is, within the manual, as, Mr. Chairman, you mentioned about the pullout versus the twisties or the twist-styled e-stops on page 4, the second line down, that has been revised to twisting to reset. That will be sent. Again, this -- they utilize the phone system versus a radio system here. That would be on page 6. Same would be on Number 9 of page 9 under Part A, A-9, is the phone system.
On page 14, as I mentioned previously, under Boiler Number 3, that was just a copy/paste error on my part. That should be Honeywell RM7800 versus the Hawkeye E111. So if you'll see that under -- at the bottom of Boiler 3 column.
Also, on page 23, the piping diagram, I inadvertently included modulating valves on the feed water; whereas, these are off and on. So I have since removed these and also included a feed water line from the DA up to Boiler Number 3. So that's just a visual.
MR. BAUGHMAN: There was also a
modulating valve, I believe, on the condensate return coming in along with the feed water. Is that still in place?

MR. TOTH: I believe that is still accurate in that case, yes.

Under page 26 for Mr. Cravens and his counterparts for the services technician, within Covenant Health, they have the same title but for different hospitals. Unfortunately -- so what we've done is utilize the job descriptions throughout covenant. So when I pulled those in, there was an addition on page 27, at the top, for Number 2 at the very top.

Keeping a record of the fees, that is not applicable to Cumberland Medical, so I took that out and corrected the spacing for the sentence above. It's just one less thing for Mr. Cravens and his counterparts to have to worry about.

And as you mentioned, Mr. Baughman, under the Glossary of Terms, page 34, included the bullet point indicating the boiler guard as a boiler attendant.

And, sir, I believe that is all of the editorial revisions.

attendant will be a trained individual, qualified by Cumberland Medical Center designated to monitor the remote panel while performing their duties as a PBX operator. The workstation of this position is the PBX office and located on the third floor in the hospital.

Thank you for bringing that to my attention.

MR. BAUGHMAN: Yes, sir.

MR. TOOTH: I've got a question about your opening statement, Marty, about the description of the boilers and all. You said that had a deaerator that operated less than 5 psi but was not registered with the State.

MR. TOTH: Yes. It does not require it, yes.

MR. FOX: Well, I'm looking at the description of the boilers here on page 23, and it's listed as an atmospheric deaerator.

MR. TOTH: The manufacturer defines it as an atmospheric deaerator, so I utilized the same title as the manufacturer.

MR. FOX: But it has no pressure whatsoever on it, correct?

MR. TOTH: It's not that it has no pressure whatsoever. It has pressure less than 5 psi. I would allude to Mr. Cravens to identify if it has --

MR. BOWERS: I think there's a correction on that. The chief can correct me. It's not what it operates at. It's the MAWP of the vessel that decides if it's supposed to be registered with the State.

MR. CHAPMAN: Okay. If it has no safety valve, then it's not building pressure because it's open to the atmosphere.

MR. BOWERS: Well, he said it's not atmospheric. He's saying that it's less than 5 psi. But I think the code actually calls for the MAWP of the vessel, not what the operating of the vessel is.

MR. TOTH: If I may add, Mr. Chairman. Number one, this is operating on less than 1 psi, as Mr. Cravens says.

MR. TOTH: Let's get a better understanding when we're talking about deaerators. All deaerators are vented to the atmosphere.
they weren't, you wouldn't be getting rid of the air. Okay? You have some that are condensate receivers, per se, or feed tanks that are straight-vented to the atmosphere. There's no restriction whatsoever.

The main purpose -- just for a little bit of education here, the main purpose for having that deaerator under pressure is to allow for us to increase that temperature of that feed water going into the boiler, making it more efficient.

This particular unit and this particular manufacturer -- and I will be more than happy to provide the manufacturer's information. I have it on my computer and I can send it to you-all -- is going to identify between a storage tank, an atmospheric deaerator that is injecting steam into the deaerator, and a full deaerator, a pressurized deaerator. That perfect operation of those is going to be between 5 and 7 psi. That's going to get you above that 227 degrees to the 232-degree mark. That is not what we have here.

So it is not required to be inspected by the State.

MR. BAUGHMAN: Does it have a relief valve on it?

MR. CRAVENS: No, sir. Open stack, six inch.

MR. BAUGHMAN: One other item that just seems to contradict itself -- and I know it's addressed under the placard -- but it's identifying the boiler guard as a boiler attendant. And under description of boiler attendants, it says the boiler attendant can go to the boiler, check it, identify problems, report back to the remote station, and reset it once the problem is cleared. But we allow the boiler guard to act as a boiler attendant. But it says the boiler guard cannot reset the boiler. So it's identified as that, but there's a conflict. And I'm just wondering if the boiler guard should actually be classified as a boiler attendant or not.

MR. TOTH: He should. And this is not something uncommon. This has been brought before this body numerous times. And where it is, it is the preference of the owner-user as to what responsibilities they want to give their individuals. Okay? Just because that individual is qualified/certified as a boiler attendant, unless we're speaking of a boiler operator, the owner-user may choose to be notified before we restart that boiler. That's their purview.

That's what they choose that they want to do. Okay? He's still qualified. He's still -- he or she still goes through the same training class, still takes the same final exam, still serves the same position; however, it's the choice of the hospital that if a boiler does go into alarm, it's shut down. The responsibility of that boiler guard is to report to the boiler room to ensure there is no adverse conditions present. And then once the on-call technician comes in, they will then start up that boiler and go through the process. That's just a choice that they have.

MR. BOWERS: They just feel more comfortable with -- to call in and start the boiler rather than the security guard.

MR. TOTH: Sure. Absolutely.

MR. BAUGHMAN: And there's a service tech or a technician available for each shift? Or does that responsibility go over to -- is there a time when there's not ever a utility service technician available?

MR. CRAVENS: On call available, yes.

MR. BAUGHMAN: On call being, maybe, at home or on-site?

MR. CRAVENS: That would be at home after hours.

MR. BAUGHMAN: Okay. So we've got the availability of the boiler going down, them having to call somebody at home to bring them in and just attend to it in that form or fashion.

MR. CRAVENS: Yes.

MR. TOTH: And, again, that's not something that's uncommon.

MR. BAUGHMAN: It's not something that's great but it's not uncommon.

MR. TOTH: Well, and I do agree with you, Mr. Baughman, in the sense that if the individuals that are serving the afterhours are not qualified, have not gone through their proper training, I agree with you one hundred percent. I can assure you these individuals that will serve in that position will go through the proper training. They will be qualified. They will be tested.

MR. BAUGHMAN: As a follow-up to that, just my own experience with these boiler guards that have been put into position of being
boiler attendants, they're very uncomfortable in that position. Just my experience.

MR. TOTH: They are very uncomfortable until they get certified. I've run through that before where people have sat in a class and they're, like, "I can't believe we're here." And then, "I don't know anything about these items." And they sit through the class, and just the energy that they have after, because it is a sense of, "Hey, I just learned something new." We're moving forward. If they are that uncomfortable, most of them will do something so they won't pass the exam. I've seen that, too. And then they'll be assigned somewhere else.

MR. BAUGHMAN: Thank you.

CHAIRMAN MORELOCK: Just to address Mr. Bowers' comment about pressure, I tried to find it. I've got rule 800-3-3 but I don't have Tennessee law. I'm sure Mr. Bailey does. But TCA 68-122-105 lists the exemptions of pressure vessels. And those exemptions are going to include DOT service and all these things. But what's going to speak to your question and concern was -- is that if you have a vessel that is either rated or operated at 15 psi or less, it is unregulated in the state of Tennessee. And so where you get into a quandary is when you have people that are trying to do relief device calculations that will come and say, "Well, I would like to use the full MAWP of the vessel," and I say, "Well, fine." And then that becomes a T vessel because you're utilizing the full MAWP of the vessel.

But if it's rated 15 or less, like an API 650, or if it's relieved at 15 or less, you'll see in that exemption that it will exempt it from registration with the state. Now, you still -- if it's a code vessel, you've still got to maintain it.

MR. TOTH: If I may add to that -- absolutely. And a lot of situations that you're going to run into is when deaerators -- deaerators, primarily, when you see them, are going to be constructed to a 50-psi MAWP. When the manufacturers do that, they will inevitably put a 50-psi relief valve on that DA. We have seen in the past where, instead of, they have taken and dropped that relief valve down to 10 or 15 or below, and then you fall into that exemption status.

Mr. Toth is on page 37, Item Number 20.

MR. TOOTH: Yes. I'm glad you bought that up. These particular units -- and I'll go where you're going, unauthorized access. These particular controls don't have password controls. Usually, what we're running into, when we talk about preventing access, may be a system that's connected to a network. Or if you have a Hawk system or a Siemens system, that you can go in and set the individual parameters, this was one of those areas where you marked it yes and then you realize that -- these don't actually have passwords. These are stand-alone systems. They're not on a network. You're not going in there to change any settings whatsoever.

MR. BAUGHMAN: Well, it gave a reference, of course, as you notice Appendix B, page 15 through 17. So it looks like there's --

MR. TOOTH: It looks like --

MR. BAUGHMAN: -- some homework that's been done in the reference.

MR. TOOTH: Right.

MR. BAUGHMAN: But it's not actually password protected, because there's nothing --

MR. TOOTH: It's not password protected. Right. Right.

MR. BAUGHMAN: Okay. I just wanted to clarify --

MR. TOOTH: And that's where it's kind of --

MR. BAILEY: She can only record one at a time.

MR. TOOTH: It's actually what -- exactly what you're saying, is that it references back to the controls; however, these controls are not password protected. So does it follow the requirements for can somebody access it or not? I should have put N/A, because that's what it should have been. And I'll be more than happy to revise that.

CHAIRMAN MORELOCK: But if you look on page 16, the last bullet on the safety features, what satisfied that for me was it says "Tamper-resistant timing and logic." So how is it tamper proof?

MR. TOOTH: So let me get to where you're referring to. Page 16, "Tamper-resistant timing and logic." It's all built in. You can't
MR. FOX: You can, but you can't.

MR. TOTH: You can, but you can't.

MR. FOX: It says it's a tamper-resistant control, tamper-resistant timing. Most of them take that 30-second timing card out and put the 7-second timing card in it. That's not tamper resistant. If you follow what I'm saying, you can change the purge times of that boiler totally, where you will not get a change notice of variance through that boiler.

So for that to say tamper-resistant timing, it's not. Honeywell makes its purge cards anywhere from seven seconds to two-and-a-half minutes.

CHAIRMAN MORELOCK: Okay.

MR. TOTH: If I may, just to answer that, this bullet point comes directly from the manufacturer's documentation as a bullet point within their manual. I do agree with what you're saying, Mr. Fox. You can go in, remove the amplifier, remove the purge cards, so now you're purged in that -- whatever section. And that goes through every Honeywell 7800 that's out in the market that's gone through this board has the same thing.

CHAIRMAN MORELOCK: So --

MR. TOTH: I think it's satisfactory, because when we're talking about the timing, Mr. Fox is alluding to the time of the purge. This is alluding to the timing of the sequence of operation. Okay? And so this statement is actually accurate.

Now, if you take out and you take a 30-second purge card and you put in a 15-second purge card, does that cause an issue? Yes, it could.

MR. BAUGHMAN: I still believe, in reading it it's not applicable, is the easiest thing, because otherwise, it gets into too much technical of what it can do.

On a Hawk system, it says it's password protected. These, it's not, but it's not really applicable. So my thought process is just to make it not applicable and not have a reference to an appendix and so forth, and just move on with it.

MR. TOTH: Sure. I'd be more than happy to do that.

MR. BAUGHMAN: That's just my suggestion with it.

MR. TOTH: And I'm glad you brought that up. That was something that I saw in the review and didn't mention because I didn't go that far. But good job.

MR. BAUGHMAN: Thank you.

CHAIRMAN MORELOCK: Any other questions?

(No verbal response.)

CHAIRMAN MORELOCK: Hearing none, I'll call the question. All in favor say aye.

(Affirmative response.)

CHAIRMAN MORELOCK: Opposed?

(No verbal response.)

CHAIRMAN MORELOCK: Abstentions?

(No verbal response.)

CHAIRMAN MORELOCK: Not voting?

(No verbal response.)

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

MR. TOTH: Thank you very much.

MR. CRAVENS: Thank you, gentlemen.

CHAIRMAN MORELOCK: Okay. That will take us to Item 19-16 Carlex Glass America requesting a new variance on two high-pressure...
1 boilers.
2 MR. TOTH: If you'll give me a second, Mr. Chairman.
3 MR. BAILEY: Conflicts?
4 CHAIRMAN MORELOCK: Are there any conflicts on this item?
5 MR. BAUGHMAN: (Indicating.)
6 CHAIRMAN MORELOCK: We do have a conflict on this item with Mr. Baughman.
7 MR. BAUGHMAN: I've worked there previously.
8 Hello, Mr. Bolton.
9 MR. TOTH: If you'll give me one second, Mr. Chairman. I want to make sure that we didn't have any editorials that I can highlight.
10 CHAIRMAN MORELOCK: Okay.
11 MR. FOX: I have a conflict also.
12 CHAIRMAN MORELOCK: Okay.
13 MR. BAUGHMAN: If we worked there, does that qualify as a conflict?
14 CHAIRMAN MORELOCK: Like recently?
15 MR. FOX: No.
16 CHAIRMAN MORELOCK: How long has it been?
17 MR. FOX: Three or four years.
18 CHAIRMAN MORELOCK: All right. So I amend that to we have no conflicts.
19 MR. TOTH: Great.
20 Okay, Mr. Chairman and members of the board. Thank you very much. I'm happy to be here with Joey Scott and Mr. Mike Bolton with Carlex Glass.
21 Mr. Scott is the process, float, and facilities engineer. You will find him and, also, Mr. Bolton, who is a facility superintendent, on your org chart on page 21.

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Carlex Glass, located here in Nashville, is an automotive glass manufacturing plant. They've been in business for quite a few years and under a few different names, but doing the same great job.

So what we have is we have two boilers located, actually, in the plant itself. They do not have individual boiler rooms. They are in the processing location. You can see the illustration in the appendix that shows both of those boilers and where they lay. They have the proper e-stops in place to -- for local e-stops.

These particular boilers we have are both Cleaver-Brooks boilers operating off natural gas. The larger boilers, the 400-horsepower Cleaver-Brooks, and then we have a 250-horsepower Cleaver-Brooks boiler.

These boilers, unlike most operations that we see which operate together in unison in a common header, though these have the ability for crossover, each boiler is dedicated to a process operation. If you need to have additional information on what those are, Mr. Scott or Mr. Bolton would be happy to go into depth on that.
MR. BAUGHMAN: It's not -- 250 horse isn't 6900. That's a 200 horse.

MR. TOTH: I'll be more than happy to do the calculation as we sit here.

MR. BAUGHMAN: Thank you, sir.

MR. TOTH: I beg to differ, sir.

No, I'm kidding.

MR. BAUGHMAN: So we'll correct that to 8625.

MR. TOTH: 8625, yes, sir.

MR. BAUGHMAN: It just kind of shows you how close we go over these things.

MR. TOTH: Well, you know, when you look at that, the -- and I'm going to have to take a closer look at the data plate, because you're absolutely correct. A lot of times what we'll do is we look at the data plate information, and if I'm not mistaken, there was some information. So I'm going to double-check on that and make sure. Because it is listed as a 250, the issue is, is also, 1990. So -- and what I mean by that is that how you go about marketing the boiler. Do you see? I found that some of the older boilers, they did not take into account the efficiencies in marketing.

So when you look at an 80 percent efficient boiler -- okay? -- you look at that 80 percent efficiency. When they go about and they market it not as an 80 percent, but they market it as 100 percent efficiency, but it doesn't really operate at that, I have actually seen that and that has everything to do with how the plate was put onto the boiler. So I'm going to verify it, absolutely. But you're absolutely correct, that 8625 is a 250-horsepower boiler at 80 percent efficiency.

MR. BAUGHMAN: Yeah. Because we do have the input of the ten four sixty-one, so that would correlate to the output.

MR. TOTH: Okay.

MR. BAUGHMAN: So how they market it and what have you is interesting.

But where are the e-stops located at?

MR. TOTH: Are you talking about the local e-stops?

MR. BAUGHMAN: Yes.

MR. TOTH: The local e-stops within the path, within 50 feet of the boiler of egress.

Because it is listed as a 250, the issue is, is also, 1990. So -- and what I mean by that is that how you go about marketing the boiler. Do you see? I found that some of the older boilers, they did not take into account the efficiencies in marketing.

CHAIRMAN MORELOCK: Any other questions?

(No verbal response.)

CHAIRMAN MORELOCK: The only thing I have is what we've talked about on some of the other manuals. On page 5 under 1. B.(2), for the remote attendant, it just says that any position assigned by Carlex Glass America, LLC management, as far as a remote attendant, does your Appendix G support that?

MR. TOTH: And it would. Again, as with the other variances, this is a simple placeholder in case Carlex Glass chooses to have somebody else serve that role. At that time, we would do a revision and document it properly within the manual.

CHAIRMAN MORELOCK: Very good. Thank you.

MR. BAUGHMAN: Very good. Thank you.

CHAIRMAN MORELOCK: Any other questions?

(No verbal response.)

CHAIRMAN MORELOCK: The only thing I have is what we've talked about on some of the other manuals. On page 5 under 1. B.(2), for the remote attendant, it just says that any position assigned by Carlex Glass America, LLC management, as far as a remote attendant, does your Appendix G support that?

MR. TOTH: And it would. Again, as with the other variances, this is a simple placeholder in case Carlex Glass chooses to have somebody else serve that role. At that time, we would do a revision and document it properly within the manual.

CHAIRMAN MORELOCK: Very good. Thank you.

Any other questions or comments?

(No verbal response.)

CHAIRMAN MORELOCK: All right.

Hearing none, I need a motion to approve this
1 variance contingent on revisions to the manual
2 based on comments from the Tennessee Board at this
3 meeting and a successful site visit from the
4 boiler unit.
5 MR. FOX: I'll make that motion.
6 MR. BAUGHMAN: Second.
7 CHAIRMAN MORELOCK: Any other
8 questions or comments?
9 (No verbal response.)
10 CHAIRMAN MORELOCK: Hearing none,
11 I'll call the question. All in favor, say aye.
12 (Affirmative response.)
13 CHAIRMAN MORELOCK: Opposed?
14 (No verbal response.)
15 CHAIRMAN MORELOCK: Abstentions?
16 (No verbal response.)
17 CHAIRMAN MORELOCK: Not voting?
18 (No verbal response.)
19 CHAIRMAN MORELOCK: Gentlemen, you
20 have a contingently approved variance.
21 MR. TOTH: Thank you.
22 CHAIRMAN MORELOCK: Thank you.
23 That takes us to Item 19-18. Quintus
24 Technologies is requesting an alteration to a
25 Tennessee Special located at CoorsTek.

1 code-stamped, we've got to do a National Board
2 alteration to repair it.
3 And the basic repair is to remove
4 what I would consider braided areas in the seal
5 area. The main pressure vessel is basically just
6 a straight cylinder with two covers that are held
7 in place by an external yoke. As it's
8 pressurized, the seals -- it's kind of like a
9 really high-pressured piston. The seals move in
10 and out slightly, but because of the high
11 pressure, 15,000 psi, you get a little bit of wear
12 every time that seal moves. And that's due to
13 maybe a little bit of ceramic powder getting into
14 the water or whatever.
15 But after a while, the seal wears and
16 starts to leak, so it needs to be machined ever so
17 slightly. We're talking, like, you know, an
18 eighth of an inch or whatever, a couple of
19 millimeters, to remove that eroded area and make
20 new seals and continue to operate.
21 Because it's an alteration, it requires
22 some kind of test. So normally, a Section A
23 Division 3 vessel would be tested at one-and-a-
24 quarter times its design pressure. But because of
25 the external yoke, one-and-a-quarter presents an

1 instability problem. So what we've done is --
2 National Board, in this case, allows you to
3 essentially, with an instability problem, allows
4 you to replace the hydro test with some kind of
5 nondestructive testing, which we are doing with
6 magnetic particle. But because we can do some
7 hydro tests, we're also putting in, essentially, a
8 1.15 times test pressure, even though it's not
9 required, to get everybody in agreement that this
10 is what needs to be done.
11 And so what kind of questions do you
12 have?
13 CHAIRMAN MORELOCK: Do I have a
14 motion to discuss?
15 MR. BAUGHMAN: So moved.
16 MR. BOWERS: I may have a conflict
17 on this one because our company insures the
18 location. I don't personally inspect it but I
19 have in the past, maybe ten years ago. Would that
20 be a conflict?
21 MR. BAILEY: Do you currently
22 insure it?
23 MR. BOWERS: Yes, sir.
24 MR. BAILEY: I think that might be
25 a conflict.
CHAIRMAN MORELOCK: Okay. We'll declare that conflict, then.

Well, Mr. Reber, it's a nice report. Just for the sake of the board, this vessel was built in 1995.

MR. BAILEY: I'm sorry. Was there a motion to discuss?

CHAIRMAN MORELOCK: Yes.

MR. BAILEY: Okay. I missed it.

CHAIRMAN MORELOCK: Yes, we had a motion to discuss. This vessel was built in 1995, and ASME Section 8, Division 3 was not printed until 1997. So that's the quandary these gentlemen are wrestling with right now.

But this board approved this vessel to be a Tennessee Special in 1995. We have seen this before in 2005. They needed to do the exact same repair, slash, alteration. And so what the situation is, is that under rule 800-3-3.03, Item 6, gives you the definition of what a Tennessee Special is. Point 07 gives you the repairs and alteration requirements, and board interpretation VI. 04-22 lays out the requirements for the repairs and alterations of a Tennessee Special.

And so the reason these gentlemen are here before us today is because they are altering this vessel. All repairs to a Tennessee Special has to be approved by the chief inspector of the State of Tennessee. All alterations have to be approved by the Tennessee board. So that's the background for this presentation.

I can tell you, just from my own review, all the work that is being proposed here, as well as the design of the vessel, does comply with Article KD-9 of Section 8, Division 3. Materials and construction are within that article. KD-900 requires a minimum of ten windings or ten layers around that cord. This particular vessel has 38, so it satisfies that need.

So the difference between this and a Division 1 pressure vessel, I cannot ask Mr. Reber -- well, just tell me what the (t) mean of this vessel is, because it doesn't work that way. It's based on stress. And so what is happening is those windings have compressed that core, and then when he pressurizes it, when CoorsTek pressurizes that, that stress will come out into that. They've designed it for a certain amount of stress. As long as you don't exceed that stress, the vessel is safe. That's what makes this a little different than a normal pressure vessel.

So what these gentlemen have prepared for us today is that in 2005, they machined 5 millimeters off of this, initially, which was 0.02 inches, something like that.

MR. REBER: Something like that, 0.2.

CHAIRMAN MORELOCK: So they're needing to do that again. That's basically where we're at, correct?

MR. REBER: That's correct. And this is roughly, just for your information, about a 38-inch inside diameter pressure vessel.

CHAIRMAN MORELOCK: Yes. But it's at 16,500 psi. So in order for them to safely operate the vessel, they've got to seal it up. And right now it's posing a leak. So what Mr. Reber's work has shown is that they can machine another 5 millimeters out of that vessel, and it will not be overstressed. That's the simple answer, right?

MR. REBER: Pretty much so, yeah.

CHAIRMAN MORELOCK: Now, my question, after that explanation, is simply this: So over time, it's taken 15 years to have to do this again. I don't know what your-all's thoughts are, but while you're doing all these calculations, it would be interesting if you could say, "Well, how many times can I machine this core before I run out of useful life?" I'm not saying that has to be done today, but it's just some food for thought.

MR. REBER: Yeah. That could be done.

CHAIRMAN MORELOCK: So my review of it, as the pressure vessel representative on the board, the things that we have to realize is we are not -- we are approving this based on the fact of does their alteration satisfy what is required by the State of Tennessee. They have put an alteration together, they've taken it to their authorized inspector. The authorized inspector has approved this alteration. And so all we're doing is saying that what they are presenting us satisfies what is required by Tennessee rule and law to accept this as a repair or an alteration.
clarification, once this is all done, it will be stamped with a National Board R stamp.

CHAIRMAN MORELOCK: Yes. And so in our package, they show that they are an R stamp holder. They actually have a U-3 as well, so they can design Div-3 vessels. So they've got their credentials. The AI has approved, which satisfies the jurisdiction. So really, we're not checking their calculations, per se. We're just wanting to make sure they're satisfying the requirements of the State of Tennessee for this vessel.

So that's all the comments I have on it.

MR. HARGROVE: Mr. Chairman, is there any testing and evaluation that's done after the machining?

CHAIRMAN MORELOCK: Yes. He's going to pressure test it to 1.15 MAWP. If he tries to go what is required in Section 3, the 1.25 will overstress the frame. And if you look in Part 3 of the NBIC for an alteration, you are not required to do a hydro to that 1.25. It just says not to exceed 1.5. So the AI and the customer and the expert, subject matter expert, have agreed on 1.15. And that will certainly --

CHAIRMAN MORELOCK: Hearing none, then, do I have a motion to approve the alteration plan for this Tennessee Special vessel?

MR. BAUGHMAN: So moved.

CHAIRMAN MORELOCK: Do I have a second?

MR. HARGROVE: Second.

CHAIRMAN MORELOCK: I'm going to call the question. All in favor say aye.

(Affirmative response.)

CHAIRMAN MORELOCK: Gentlemen, you have an approved alteration.

MR. BAUGHMAN: Thank you for your input and expertise on that.

CHAIRMAN MORELOCK: Thank you.

All right. I've got 10:21, so let's take a nine-minute break and reconvene at 10:30.

(Recess observed.)

CHAIRMAN MORELOCK: All right.

Let's move on to our next agenda item, which is Item 19-19, Unilever. And they are requesting a new variance for two high-pressure boilers.

Are there any conflicts on this item?

(No verbal response.)

MR. NEVILLE: I'm James Neville with Neville Engineering representing Unilever.

MR. NICHELSON: Pete Nichelson, boiler operator.

MR. NEVILLE: Unilever Covington's facility produces ice cream, so they have several brands that are produced there. It's quite a large facility. So Breyers, Fruttare, Good Humor, Klondike, Popsicle, all of the good stuff comes from the Covington plant.

We're requesting a variance on two high-pressure boilers. These operate on demand 24 hours a day, seven days a week, furnishing high-pressure steam for heating and process.

In the site plan on page 1, we show...
the proposed location for the remote station,
which is approximately 50 feet from the boiler room.

Boilers 2 and 3 are the ones that will be on this variance. They are both 600-horsepower Burnham boilers as identified in Appendix A. Those do have a Bryan DA with the information that we've identified here. That is a pressurized DA.
The individuals -- the remote station is a hardwired circuit for each boiler to the remote station. And the boiler attendant and the boiler operator are the utilities maintenance technician, is the job title there. So there are multiple utility maintenance technicians, and they will be manning the boilers from the remote station.

We list their job description in Appendix G. And I can have Mr. Nichelson talk about the training of those boiler operators, how they're qualified to operate these boilers.

MR. NICHELSON: Unilever's policy for hiring is to hire somebody who is qualified with a two-year trade school to work in maintenance, and in the utilities department, is required to have some type of background in HVAC and boilers. So most everybody we bring in has some type of boiler operations.

Then we work with them anywhere from 30 to 90 days to make sure they understand, you know, how to take down a boiler, how to bring it back up, how the DA works, you know, changing them pumps, you know, make sure they have a full understanding and then observe them, you know, during the rest of their time to make -- you know, because we do get a lot of low waters for the conductivity that we receive back sometimes. But to see how they handle it and make sure they're -- you know, they're going to be qualified to run it.

MR. NEVILLE: The control system on these boilers is the Hawk 4000 control system. And we've identified that in Appendix B.

If there are any questions, we would like to field any questions.
CHAIRMAN MORELOCK: Do I have a motion to discuss?

MR. BAUGHMAN: So moved.
MR. BOWERS: Second.
CHAIRMAN MORELOCK: Thank you.

What questions/comments do you have on this variance request?

MR. BAUGHMAN: So how many technicians do you have?

MR. NICHELSON: We run six total.

We run 12-hour shifts on a 2/2/3 schedule. We run two on day shifts and one on night shift.

MR. BAUGHMAN: Weekends also?

MR. NICHELSON: Yes, sir. 24/7.

MR. BAUGHMAN: On E-2 under the Power Piping and Feed Water Diagram, I'm looking in the what looks like the boiler room. The two boilers are identified there.

MR. NEVILLE: Yes. On E-2?

MR. BAUGHMAN: Yes, sir.

MR. NEVILLE: Okay.

MR. BAUGHMAN: And I show where the emergency stop is located at that point of egress.

But I'm noticing other points of egress also.

MR. NEVILLE: Those go out into the plant.

MR. NICHELSON: Yeah, they go to the plant. This is actually a sealed door.

MR. BAUGHMAN: So do we have more than one point of egress out of that boiler room?

MR. NEVILLE: Yes.

MR. BAUGHMAN: Okay. And that's what I was wondering. So we're going to be talking about that here in a little while. But I just wanted to make sure that we saw that and then get any comments on what we might need to do to update on other points of location.

MR. NEVILLE: Okay.

MR. BAUGHMAN: I notice that we've got an HMI, a human machine interface. Can any parameters be changed utilizing that HMI?

MR. NICHELSON: I mean, they're password protected for that HMI. Can any parameter be changed? I'm not aware that they can be changed on the interface that the operator has on screen.

MR. NICHELSON: That's true.

MR. BAUGHMAN: Okay. Do the parameters ever get changed by anybody?

MR. NICHELSON: Only when they come out to tune it. We have a third party come to tune the boiler. They log in and change it to get the best efficiency out of it. And that's how we leave them until -- that's usually -- that's an annual tune.

MR. BAUGHMAN: Okay. So they have the password in addition to site personnel.

MR. NEVILLE: Yes.
MR. BAUGHMAN: Okay.

CHAIRMAN MORELOCK: Any other questions or comments?

(No verbal response.)

CHAIRMAN MORELOCK: Hearing none, do I have a motion to approve this variance contingent on any revisions to the manual based on comments from the Tennessee board and a successful site visit from the boiler unit?

MR. BOWERS: I make that motion.

CHAIRMAN MORELOCK: Okay. Do I have a second?

MR. FOX: I second it.

CHAIRMAN MORELOCK: Okay. Last call for any questions.

(No verbal response.)

CHAIRMAN MORELOCK: All right. I'll call the question. All in favor, say aye. (Affirmative response.)

CHAIRMAN MORELOCK: Opposed?

(No verbal response.)

CHAIRMAN MORELOCK: Abstentions?

(No verbal response.)

CHAIRMAN MORELOCK: Not voting?

(No verbal response.)

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

MR. NEVILLE: Thank you.

CHAIRMAN MORELOCK: Thank you.

So that takes us to agenda Item 19-20, which is Grace, requesting a new variance for one high-pressure boiler.

MR. NEVILLE: James Neville of Nashville Engineering representing Grace.

MR. ALLEN: Mark Allen, plant engineer.

MR. OLIVERIUS: James Oliverius, production superintendent.

MR. NEVILLE: Grace is a specialty chemical manufacturer in Chattanooga, Tennessee. We're requesting a variance on one high-pressure boiler. This facility has had a variance in the past, but this is a brand-new boiler, and we are presenting it as a new variance.

The site plan shows the boiler house and the main guard house where we will be monitoring that boiler from.

As far as the personnel at the remote station, it will be a security guard. The individual monitoring the boilers will be a leadman operator. Their job descriptions are in Appendix G. And we list the boiler in Appendix A, which is an LX100 Miura boiler.

And we can take any questions regarding this variance.

CHAIRMAN MORELOCK: Okay. Do I have a motion to discuss?

MR. BOWERS: Motion to discuss.

MR. BAUGHMAN: Second.

CHAIRMAN MORELOCK: Thank you.

What questions/comments do you have about this variance request?

MR. HARGROVE: The leadman operator seems to have a lot of responsibilities. Are there other individuals to monitor the boiler with regard to boiler attendants?

MR. ALLEN: Well, in an emergency the foreman, the production foreman could be available for that purpose. He is there at all times.

MR. HARGROVE: And the leadman, this is a three-shift operation?

MR. ALLEN: It's actually two shifts.

MR. OLIVERIUS: It's two shifts through the day but four total shifts.

MR. HARGROVE: And the leadman is two individuals, I would assume.

MR. OLIVERIUS: No. The leadman is one individual, so I have one per shift. I have four crews that run on two shifts, two 12-hour shifts. So one leadman per shift, and then we will have a secondary back-up leadman, if that leadman is ever out, to be able to fill that position who has also be trained.

MR. HARGROVE: Thank you.

MR. BOWERS: Now, this is a new boiler, correct?

MR. ALLEN: Yes.

MR. NEVILLE: Yes.

MR. BOWERS: Are there other boilers in that same boiler room?

MR. ALLEN: There's just this one boiler.

MR. BOWERS: Okay. Now, you did have a variance before, so you're replacing an old boiler?

MR. ALLEN: Yes.

MR. BOWERS: Was that a Miura boiler also?
MR. ALLEN: It's a Miura LX100.

MR. BOWERS: The one before that was a Miura?

MR. ALLEN: Yes, the same.

CHAIRMAN MORELOCK: I've got a couple of comments. If you look at the boiler log in Appendix F, is this indicative of what you're actually testing or looking for, or is this just a generic list?

MR. ALLEN: It's indicative of what we would look for.

MR. BAILEY: You need to speak up.

MR. ALLEN: Yes. This would be --

CHAIRMAN MORELOCK: Is that what you're looking at?

MR. ALLEN: Yes. Yes, sir.

CHAIRMAN MORELOCK: Okay. So is there any need to -- there's no other parameters you would need to look at on this particular boiler?

MR. OLIVERIUS: So we would do -- perform low-water cut-off tests on days of its operation. The night crew is responsible for, you know, chemical water tests. That's not included, so there's a separate sheet that we'll document that on.

CHAIRMAN MORELOCK: Okay. Very, very good.

Mr. Morelock's comments on making sure the checklist reflects what's back in your appendices. And back to that boiler log, it shows Appendix F, pages 7 through 9. And I don't have a 7 through 9. I've just got an Appendix F. So just make sure that -- I've got an F-1, but I don't have pages 7 through 9 as what's referenced in your checklist.

MR. NEVILLE: Well, that would be, as far as the boiler attendant procedures, is what I believe it's referenced in.

MR. BAUGHMAN: Oh, okay. So not so much --

MR. NEVILLE: Not F --

MR. BAUGHMAN: Okay. I got you. Okay. That makes --

MR. NEVILLE: Normal duties, you know, report to the boiler room and perform daily tasks and maintenance requirements. We can add
some information to that boiler log. I think it
needs to have a little more detail than what we've
got.
MR. BAUGHMAN: How do you
communicate with this boiler? I know we've got
communications availabilities. But how are we
communicating with the boiler at the job site?
MR. ALLEN: Is this between the
remote attendant and -- remote operator and the
attendant?
MR. BAUGHMAN: In any form or
fashion. Just kind of explain to me how we can
communicate with this boiler from not only the
remote station but anybody.
MR. ALLEN: Okay. Well, a couple
things. We have a distributing control system in
the plant which monitors not necessarily the
boiler but pressure at the end users. And our
operators carry radios that are used between
operations and the leadman. And, of course, they
have inner-plant phones and a public address
system.
MR. BAUGHMAN: Is this boiler being
monitored off-site at all by anybody else?
MR. ALLEN: No, not at this time.

MR. ALLEN: Yes.
MR. BAUGHMAN: Very good. Thank
you.
How many leadman operators do you
have?
MR. OLIVERIUS: So we'll have one
per shift. But we -- like I said, we try to have
at least one other back-up on the exact same
shift. So we try to have at least two. So we're
actually training one right now to be a back-up
lead operator. So minimum, we try to have two,
but there -- some employees, once they learn that
circuit and are qualified as a lead operator, they
can also step in on those situations.
MR. BAUGHMAN: Okay. That's all
I've got.
CHAIRMAN MORELOCK: Are there any
other questions or comments?
(No verbal response.)
CHAIRMAN MORELOCK: Do I have a
motion to approve this variance contingent on
manual revisions based on Tennessee Board comments
and a successful site visit from the boiler unit?
MR. BAUGHMAN: So moved.
MR. BOWERS: Second.

MR. BAUGHMAN: Well, I knew Miura
had that capability, so that's why I was asking.
MR. ALLEN: We've tried to migrate
away from analogue phones, and their system still
has it.
MR. BAUGHMAN: And the reason I was
asking was in this description of the controls, it
talks about the microcomputer responds to the
Amnet communication system either over telephone
lines or mod bus back net to monitor the boiler.
So I didn't know exactly what we were utilizing.
MR. ALLEN: We're not using that.
MR. BAUGHMAN: Not using it.
MR. ALLEN: They've told us that
they hopefully will get an upgrade to where they
will have digital phone capability through this,
and we would like to use it for, you know,
maintenance reasons.
MR. BAUGHMAN: Right now,
everything you're doing as far as monitoring the
boiler is just read only.

CHAIRMAN MORELOCK: Any other
questions or comments?
(No verbal response.)
CHAIRMAN MORELOCK: Hearing none,
I'll call the question. All in favor say aye.
(Affirmative response.)
CHAIRMAN MORELOCK: Opposed?
(No verbal response.)
CHAIRMAN MORELOCK: Abstentions?
(No verbal response.)
CHAIRMAN MORELOCK: Not voting?
(No verbal response.)
CHAIRMAN MORELOCK: Gentlemen, you
have a contingently approved variance.
MR. NEVILLE: Thank you.
CHAIRMAN MORELOCK: We have moved
proposed changes to Rule 0800-03-03-.14 for fees
to the December 11th meeting.
That completes our new business.
That takes us to Item 9, which is Rule Cases and
Interpretations. And we have a request by ECS
Consulting, BI 19-01, to provide an interpretation
on the requirements for manually operated remote
shut-down switches assigned to high-pressure
boilers installed and operated in the state of
As I'll read, I think everybody on the board has a copy of my request. Simply enough, what we are seeing in the industry, there's a lot of confusion amongst clients as to the requirements set forth by this board in regards to remote shut-down switches. And I use that terminology and don't want do confuse anyone here. We're not referring to remote panels for variances. The term "manually operated remote shut-down switches" is used in the codes to identify e-stops. So from hence forth, we'll refer to local e-stops versus remote e-stops, if that so pleases...

Simply enough, we're all aware that in the state of Tennessee, we have references that we refer to. This also makes it simple, especially if those code references change from time to time. Some time ago, it was put before the board that the board will accept all code revisions, so that as those code references change, it automatically is updated by this board.

So in regards to boilers, there's two codes that hold precedence within the state of Tennessee when it comes to boiler installations. It's ASME, CSD-1 and NFPA 85.

For CSD-1, those are going to be those boilers that are between 400,000 BTUs and 12.5 million. NFPA 85 is going to be any boiler that's greater than 12.5 million.

So roughly, what we're talking about is anything above a 300-horsepower output, would be a boiler that is covered under NFPA 85, and anything below that would be under CSD-1.

Both of those codes require the installation of remote shut-down switches, as I said, local shut-down switches at the boiler or in the path of egress. Specifically, if we were to look at those codes, you look at CSD-1, CSD-1 is going to spell that out in CE-110(b); whereas, an and NFPA 85, you're looking under Chapter 4.11.7.9.

What I would like for this body to do is if we could go through these interpretations questions. As the process for these, I submit a question; I submit the answer as I feel that I'm interpreting it as; and then the board either agrees, disagrees, or answers in a different way.

I don't think we do a whole lot of these anymore here with the board, but I think that they are very beneficial and we're to take and put in writing so that the industry throughout the state gets a better understanding.

So if you may, sir, I would ask how you would like me to present these? One at a time or all together?

Chairman Morelock: That's fine.

MR. TOTH: Okay. If the board members would, please, under Inquiry Number 1 --

MR. BAUGHMAN: I'm sorry to interrupt. We're talking about CSD-1 and NFPA 85 and NBIC. And correct me if I'm wrong, Mr. Toth, but did NBIC just recently change any requirement on e-stops?

MR. TOTH: They did. And again, let's remember where we talk about that. The NBIC does mention it. But it also gives it to the acceptance of the jurisdiction. Very recently, the NBIC added a portion through the latest revision that does, in essence, grandfather existing locations that do not have e-stops already installed. However, each jurisdiction stands on its own, has the ability to choose certain aspects, and that's why you'll see a lot throughout the NBIC. All four sections, you'll...
MR. BAUGHMAN: And I mention that for the public record because as we're in the service industry, we get this from different experts that would say well, NBIC says this, and we'll say well, that's true, and it goes back to our jurisdiction and we're a CSD-1 adopted state. And so I just wanted to make sure we had it for the record that it goes back to our local jurisdiction, our state jurisdiction.

MR. TOTH: And if I could give a good example --

MR. BOWERS: Well, I was going to say the conflict exists, too. We're talking about multiple codes where ASME and CSD-1 says you will do this, but then the NBIC, in Section F you're talking about, remote -- you don't have to do that. So one says this; this says no; and we adopt both of them.

MR. TOTH: Right.

MR. BOWERS: So there's conflicts between which one we go by.

MR. TOTH: And that's why this esteemed group of individuals here, you-all have that opportunity to clarify that in ways of either board cases or board interpretations; in this case, a board interpretation.

If I could, I would like to give a good example of something that Mr. Baughman had mentioned. Whereas, if you look, nonreturn valves, steam boilers -- steam boilers that are on a common header that have manways and are required to have double-valve protection. The closest valve to the boiler is required to be a non-return by the State of Tennessee.

The NBIC gives an opportunity and says that you will have double-valve protection, one of which may be a non-return. State of Tennessee has taken it one step further in 2016 and puts it into the rules and regulations and stipulates that no, you can't just have two valves; you must have a non-return valve.

So that's a great example of how the state has taken it one step further. What the state is not going to do, it's not going to take it to a lesser standard of safety. That's really it. It's usually -- in most cases, I've never seen it the opposite. I've always seen it gone a little bit more stringent. Okay?

CHAIRMAN MORELOCK: Yeah. I would add that the jurisdiction is what makes codes enforceable.

MR. TOTH: That's right.

CHAIRMAN MORELOCK: Without the jurisdictional approval and writing it into state law, they're just really good guidelines and standards, but they really are not enforceable without the jurisdiction.

MR. TOTH: Right. Okay.

So if we would, without further ado, let's go ahead and go through Inquiry Number 1. I'll read it as-is with my reply: "Is it required that all locations operating a power high-pressure boiler in Tennessee be fitted with a manually operated remote shutoff switch?"

Reply: "Yes."

Inquiry Number 2: "If Inquiry 1 is yes, is it required that a manually operated remote shutoff switch be located at each means of pedestrian egress from the boiler location, example boiler room?"

Reply: "Yes."

Inquiry Number 3: "Where a boiler is located indoors in a facility and not in an equipment room, example, boiler room, mechanical room, room, et cetera, is it still required to have a manually operated remote shutoff switch installed?"

Reply: "Yes. A manually operated remote shutoff switch, e-stop, shall be located within 50 feet, 15 meters, of the boiler/boilers along the primary egress route from the boiler."

Inquiry Number 4: "For a boiler equipped with a power burner, is it required for the manually operated remote switch to disconnect all fuel and electrical power to the boiler?"

Reply: "No. The switch need only shut off the fuel input to the boiler, that is the burner."

Inquiry 5: "Is it required for all high-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, that is e-stop, installed at the point/points of egress where the activation of the switch shall actuate the master fuel trip relays on all boilers within the location?"

Reply: "No. However, this does not restrict the owner/user from doing so if they
Inquiry 6: "For a manually operated remote shutdown switch where the boiler room door is on the building exterior, is it allowable for the switch to be located just inside the door to the boiler room?"

Reply: "Yes."

Inquiry Number -- oh, my numbering is off there, isn't it? Sorry about that. This is actually Inquiry Number 7: "For a 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?"

Reply: "Yes."

CHAIRMAN MORELOCK: And that should be "tampering" instead of "tempering"?

MR. TOTH: Thank you, Mr. Chairman. At least I said "tampering," right?

CHAIRMAN MORELOCK: You did.

MR. TOTH: Okay. Good. So now we're looking at Inquiry 8 with the correction there: "When an existing high-pressure boiler installation do not include a manually operated remote shutdown switch, is it required that these switches be retroactively installed to boilers installed in the state of Tennessee?"

Reply is no.

The last inquiry, Number 9: "In the state of Tennessee, is a manually operated remote shut-down switch required for installations of boilers defined under Section 4 of the ASME code for heating boilers, low-pressure boilers?"

Reply: "No."

And that's all of the inquiries, and I'm open for any discussion.

CHAIRMAN MORELOCK: What about an electric boiler?

MR. TOTH: Electric power boiler?

CHAIRMAN MORELOCK: Is it a power boiler?

MR. TOTH: Oh, yeah. They are. But it doesn't say -- kind of, to back up your question, because the first inquiry talks about power boilers.

CHAIRMAN MORELOCK: Okay.

MR. TOTH: That's the first inquiry. It talks about power boilers, be it gas, oil, electric.

CHAIRMAN MORELOCK: Okay.

MR. TOTH: Now, when we talk about what does it do, when you hit the e-stop, that's a different subject.

CHAIRMAN MORELOCK: Right. And that's why I was asking, because you're saying that it would shut off the fuel.

MR. TOTH: Okay. So in this case here, when we look at it -- and I think that this has been a misinterpretation by individuals for quite a while -- When you look at the code and the code talks about e-stops, what the code is going to say is they're going to talk about fuel and energy source. Okay? As we know, energy is heat, right? It's not just electricity.

The reason why in the codes we put fuel and energy when we're talking about an e-stop, we're talking about tripping the fuel source, if it's a gas/oil. And then if we're talking about tripping the energy source, we're referring to electricity for an electrical boiler. We're not referring to tripping all the power to the boiler. Because there are situations -- and I'll just go into that since you brought it up.

CHAIRMAN MORELOCK: Feed water pumps and things like that.

MR. TOTH: There are situations that we do not want to de-energize the entire boiler. There are situations where de-energizing the entire boiler could lead to more harm than good. So that's where that comes into play.

MR. BAUGHMAN: Also, just to add a little bit to that, too. There are some boilers that if you tie the e-stop into the main fuel valve, the boiler continues to run. There's power boilers that have intermittent pilots that -- i.e., Fulton, in particular -- and the boilers sit there and continue running. Even though you've cut the main fuel off, the pilot continues to be running, and it's still picking that up, and it doesn't know that the fuel valve has closed electronically. You can cut off the electrical to it and the boiler continues to run and can build steam on pilot alone.

So we've talked about this in our meetings with contractors on where the best place is to install an e-stop in the circuitry. And we try to refer them back to the manufacturer,
because the manufacturer, as with us, our UL listings and what have you and our drawings show specifically where the e-stop gets installed at. But we also had an e-stop installed on a particular installation at a school years ago -- not all that many years ago -- but when they hit the e-stop, it didn't shut the boiler off. The on/off switch didn't shut it off. Nothing shut it off. They evacuated the building. The customer swore the devil was in the boiler, and I said turn the main gas valve off, and if it doesn't shut it off, I will agree Satan is in the boiler; but otherwise, it will shut it off.

So it's not a one-size-fits-all where the e-stop gets installed at. And in here, of course, we're going to address power boilers, but there's a lot of atmospherics out there also that have to be addressed. Mr. TOTH: Right. And if I could, to go upon that, I would like to see where the particular boilers you're referring to have an interrupted versus intermittent pilots.

When we're talking about cutting off the fuel, that pilot still has a gas valve, does it not?

very much.

MR. TOTH: Yeah. That's really how it works.

MR. BAUGHMAN: From a technical side, there's so many things that are not a one-size-fits-all that -- there's an education that needs to be made out there in the industry as we're taking this information and trying to produce it back to the contractors that are installing boilers or putting e-stops in and so forth. And that's its own set of problems in itself, is how to get this information out there to the industry.

MR. TOTH: And again, when we talk about what the code is going to do and what the code asks for or what the code says that needs to be a minimum, that states where does it need to be installed into, what does it need to be doing. The code's going to state that it's going to cut off -- in the case of a gas boiler -- it's going to cut off your fuel source. That's it. Okay?

If this board decides that you want to take the point of the interpretation and you want to say no, it needs to cut off everything and the porch light, you can do that, too.

The issue is, is when we've got a lot of verbal. And we, actually -- Mr. Morelock and I, actually, kind of had a little bit of discussion about this earlier -- not this, but about interpretations and why we worked hand in hand to get interpretations written down because there's a lot of word of mouth. One day, you tell somebody this; the next day the same subject comes up but you've got something else on your mind and you tell them something different.

We need to get it to a point where it's standardized that we don't have one inspector telling somebody one thing, another inspector telling somebody something else. That's been a battle ever since I've been involved.

MR. BOWERS: I think it should be simple because -- you know, make it as simple as possible. Because as inspector, you look at it and say, well -- the inspector is going to -- the client is going to ask me, "Well, how do I wire that?"

And I'll say, "Hey, I'm not an electrician technician," you know. And in a lot of cases, package boilers were shutting the switch off that actually probably connects to a solenoid.
that shuts the gas line off. I don't know that.
Where you mention going to the manufacturer,
because you tell somebody to do it the wrong way
and it ruins the unit, and they look at it and
say, "Well, how come you told us to do it this
way?"

MR. TOTH: Well, again -- and
Mr. Bowers, I agree with that. But what we're not
saying is, is we're not requiring what has to
happen by code is that it shuts off the fuel. Or
if it's electrical energy that's causing the heat,
it's shutting that energy source down. That's
required by code. Okay?

What's not required by code is to
turn off the electrical power to the controls.
That's not required by code. So if somebody
chooses to do that, unless you find that that puts
that boiler in danger, which means -- as somebody
has been in the industry for a while will tell
you -- that there are situations where you could
cause more harm by doing that than allowing the
controls to do what they're supposed to be doing.
Okay?

So what I'm here to say is, is it
required for it to shut off all electrical power?

MR. BAUGHMAN: While you're looking
at that right quick, one of the things that I
wanted to clarify was in CSD-1 under the CE-110,
is that it says it should maybe at least shut off
the fuel or energy supply.

MR. TOTH: Because of what type of
boiler it is.

MR. BAUGHMAN: Yes. And then the
other is it says shut off the fuel. So many
contractors interpret that as "I'm going to wire
it into the gas valve." Well, it should say shut
off all the fuel. And the other is if you wire it
into the gas valve, in your dual fuel, you can
still operate off of your secondary fuel. If all
you're doing is shutting off your gas valve, you
haven't affected your oil side.

MR. TOTH: Well, does that come
down to giving the individual the knowledge to
say, "This is what needs to be done. Now, you
can't be held responsible for ignorance."

MR. BAUGHMAN: Yes. So my
interpretation or my suggestion is, is that it's
worded to where it shuts off all fuel supply to
the boiler. That would mean gas, oil, whatever
propane they might have as a secondary fuel, but
that way, all the fuel supply is taken into
consideration instead of somebody just looking at
the gas side.

MR. TOTH: Okay. I agree with
that, but when you look at Inquiry Number 4, it
actually does state that. It states that in the
question, but then if you wanted to put repeat the
word all, you can.

MR. BAUGHMAN: Got you. It does
say that, disconnect all fuel.

MR. TOTH: Yeah. So you can, you
know; whereas, if the board comes back and says,
"We're going to word it this way and this is how
it's going to be published," and that word is shut
off all of the fuel, then that's satisfactory,
because that answers both of them.

And I sure hope nobody is wiring it
directly to the gas valves and not through the
controller.

MR. BAUGHMAN: Seen it.

MR. TOTH: I know. We've all seen
it. It's just, again, we've got to be careful
when you assign interpretations. And we run
through that all the time where now you end up

being a consultant, and that's not your
responsibility as a board. It's answer the
question. If you can answer it with a yes or no
answer, answer yes or no. If you put a little bit
of a blurb on the end of it to shed a little bit
more light, so be it. But we don't want to get
into the laundry list because something is going
to get missed.

CHAIRMAN MORELOCK: Well, even
adding that little bit on can be viewed as
consulting as well.

MR. TOTH: Sure. Absolutely. So
you've got to be careful with that.

There are quite a few here, and I
just want to make sure that the board is very
clear and I've been able to answer any questions
of the intent of this, such as, you know, retro
fitting boiler rooms. My response is a response
that came from the NBIC. It's not my personal
response. Okay? So I want to be perfectly clear
on that. My response of retrofit, no, or
retroactively, is coming from the NBIC. It's your
choice to say, "If we find a boiler that does not
have an e-stop and it's been installed for
20 years, now you get into how are you going to
handle that and what time frame you're going to give somebody to come back up to code. That's on y'all.

CHAIRMAN MORELOCK: Well, and so referencing NBIC is the proper thing to do, even to the point of paragraph, if need be. That way -- these interpretations are published out on the Tennessee website. Anybody can go read those, and a lot of those people that would read those probably did not even have the code book. So if we point them where to go, they can at least go read it for themselves. But we don't want to tell them what it says because, again, that's consulting, so...

MR. TOTH: I would be very interested in knowing the position of the board in regards to preexisting installations. Because I know Chief Chapman and his staff has been very diligent with requiring e-stops. Now, we're going to clarify, you know, how they need to be connected. But I'm very interested in seeing these boiler installations, because it's only been since 2007 or just before that that we started doing installation permits.

MR. BOWERS: Question here, to go back. At one time we were putting e-stops -- we were only doing retroactive back to 2006. Anything that was put in before 2006, I guess, it was an unofficial grandfathered in. Then it was, like, two years ago the chief came back and says, "No. All preexisting need to have e-stops." So this has been a couple years that we've gone back and tried to get the preexisting ones that were put in before 2006.

MR. TOTH: And I would say that that date of 2006 probably coincides with the requiring of state installation permits. If I were to guess, that was probably when we started those, which spells out and calls out e-stops.

MR. BOWERS: But that was an unofficial policy.

MR. TOTH: And that's really at the -- that response can be altered, in the board's response, to include that. You know, that states that any boiler installation that has occurred, and you put a date, legal on what that date should be, and you put it in the interpretation. And anything installed after that requires it, and anything before does not unless there is some type of a change in the boiler.

MR. BOWERS: Number B. It says, "A manually operated remote shut-down switch or circuit breaker shall" -- now it says circuit breaker -- shall be located just outside the equipment room door and marked with easy identification. Consideration shall be given to the type and location of the switch to safeguard against tampering.

MR. TOTH: There you go.

MR. BOWERS: Now, in Tennessee, we go below the 200,000. So that should not be covered under the NBIC because it doesn't have a National Board stamp on it. So anything that's -- if I'm looking at it right -- anything below the 200 is not covered by the NBIC.

MR. TOTH: I haven't -- I'll be honest with you, I haven't had a chance to look in the other parts of the NBIC to see where all those other changes are.

MR. BOWERS: So are we going to have to look at that part? Are we going to have to start enforcing that part of it?

MR. BAUGHMAN: That's a good question.

MR. BOWERS: And so the 5.32.2 potable water.

MR. TOTH: Part 3? Repairs and alterations?

MR. O'GUIN: Part 1.

CHAIRMAN MORELOCK: Part 1 or 2.
MR. O'GUIN: There had quite a few revisions in 2019 that we've been going through ourselves.

CHAIRMAN MORELOCK: And as Mr. Toth has alluded to, we -- in our rule, we say we will accept the latest addition addenda of the NBIC, so we need to look at it because if there's something we don't like, then we'll have to do a board case or something to...

MR. TOTH: And again, any of these inquiries can be held on their own, if need be, or removed for future --

CHAIRMAN MORELOCK: Well, and that was Mr. Baughman's question. I guess my question to the board is do you want to take these individually and vote on them, or do you want to vote on them as a whole? And it's strictly up to the board's pleasure.

MR. BAUGHMAN: I would take them individually, personally.

MR. BOWERS: I agree.

MR. TOTH: Okay. So what you're saying is would they still line up as BI-19-01?

CHAIRMAN MORELOCK: Yes.

CHAIRMAN MORELOCK: Because that's the course that we took for identification of interpretations, very similar to what we deal with at the ASME national board.

CHAIRMAN MORELOCK: You know, under the topic of e-stops, yes, I would leave it under one interpretation.

MR. TOTH: Right. And then you handle it and so you look at it and say do you agree with Inquiry 1, with the answer, if you leave as is or you revise it, and then handle it.

CHAIRMAN MORELOCK: Right.

MR. TOTH: And that's kind of how I introduced this, is go down through them individually.

CHAIRMAN MORELOCK: Okay. So with that said, do I have a motion to vote this on an individual inquiry reply under the same interpretation number?

MR. FOX: I'll make that motion.

CHAIRMAN MORELOCK: Okay. Do I have a second?

MR. BAUGHMAN: Second.

CHAIRMAN MORELOCK: Okay.

MR. BAUGHMAN: I'm going to need to take a break here in just a minute.

CHAIRMAN MORELOCK: Let's take a five-minute break, then.

(Recess observed.)

CHAIRMAN MORELOCK: So what we have before us is nine inquiries and nine proposed replies. We'll take them one at a time, and we'll let the board vote on them individually, even though it will be one interpretation. Fair enough?

(No verbal response.)

CHAIRMAN MORELOCK: All right. So with Inquiry 1 and Reply 1, Inquiry 1 is, "Is it required that all locations operating a power, parenthetical, high-pressure boiler, in Tennessee be fitted with a manually operated shut-down switch?"

Proposed reply is yes.

All in favor, say aye.

(Affirmative response.)

MR. TOTH: Because that's the course that we took for identification of interpretations, very similar to what we deal with at the ASME national board.

CHAIRMAN MORELOCK: You know, under the topic of e-stops, yes, I would leave it under one interpretation.

MR. TOTH: Right. And then you handle it and so you look at it and say do you agree with Inquiry 1, with the answer, if you leave as is or you revise it, and then handle it.

CHAIRMAN MORELOCK: Right.

MR. TOTH: And that's kind of how I introduced this, is go down through them individually.

CHAIRMAN MORELOCK: Okay. So with that said, do I have a motion to vote this on an individual inquiry reply under the same interpretation number?

MR. FOX: I'll make that motion.

CHAIRMAN MORELOCK: Okay. Do I have a second?

MR. BAUGHMAN: Second.

CHAIRMAN MORELOCK: Okay.

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All in favor, say aye.

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CHAIRMAN MORELOCK: All right. So with Inquiry 1 and Reply 1, Inquiry 1 is, "Is it required that all locations operating a power, parenthetical, high-pressure boiler, in Tennessee be fitted with a manually operated shut-down switch?"

Proposed reply is yes.

All in favor, say aye.

(Affirmative response.)
MR. TOTH: That will be answered in one of the other inquiries.

CHAIRMAN MORELOCK: Okay. Moving along.

MR. TOTH: And Mr. Chairman, if I may ask.

CHAIRMAN MORELOCK: Yes.

MR. TOTH: So just for clarification, you're making a motion. Is there going to be room for additional discussion before you take the vote on it?

CHAIRMAN MORELOCK: Sure.

MR. TOTH: I just want to make sure before you take the vote.

CHAIRMAN MORELOCK: Okay. Sure.

Yes. Okay.

Inquiry 2: "If Inquiry 1 is yes, is it required that a manually operated remote shutdown switch be installed at each means of pedestrian egress from the boiler location, for example, the boiler room?"

The proposed reply is yes.

So is there any discussion on that?

MR. BOWERS: Yes. In one of our recent approvals of a variance, they had two e-stops but it had five exits. So where do we limit that?

MR. BAUGHMAN: You don't.

MR. TOTH: (Shakes head.)

MR. BOWERS: So we just approved one, but are we going to go back and say -- so if it has five means of egress, each means of egress has to have an e-stop?

MR. TOTH: And if I may, Mr. Chairman.

CHAIRMAN MORELOCK: Please do.

MR. TOTH: When we start looking at safety light codes and things like that and you start talking about means of egress, means of egress is a door that's going to open outside. Okay? Example, I've got a client that has four doorways in their boiler room. Three of them led to the exterior, a way of escape. It can be going back into the building; it can be going outside. One is an inward-swinging door that goes to an electrical room. That's not a means of egress. It's what is established as a means of egress.

If the codes, building code enforcement came in, they would identify those three as a means of egress and the fourth is not.

So anything that's identified as a means of egress or a safety egress has to, by code, have an e-stop.

MR. BAUGHMAN: In particular, in that example, where that door would go into the electrical room, if there was an additional door from that electrical room that went to a point, that would be a considered a point of egress, also, as a means of exit.

MR. TOTH: As long as it's defined as that. If it has one going out; however, if it is an inward -- an outwardly swinging door going into the electrical room, yes, it is. If it's an inwardly swinging door where you have to open it to open it back into the boiler room, no it's not.

MR. BAUGHMAN: Right. Well, and so those means of egress will typically have an exit sign also identified with it.

MR. TOTH: Absolutely.

MR. BOWERS: Thank you.

CHAIRMAN MORELOCK: Okay. So with that being said, I guess my question is who determines what is a means of egress? Who is responsible for that? I'm assuming the owner, owner-user, right?
(Affirmative response.)

CHAIRMAN MORELOCK: Opposed?

(No verbal response.)

CHAIRMAN MORELOCK: Abstentions?

(No verbal response.)

CHAIRMAN MORELOCK: Not voting?

(No verbal response.)

CHAIRMAN MORELOCK: Okay. So that passes.

Moving on to Inquiry 3: "Where a boiler is located indoors in a facility and not in an equipment room, for example, a boiler room, mechanical room, et cetera, is it still required to have a manually operated remote shut-down switch installed?"

The proposed reply is, "Yes. The manually operated shut-down switch, parenthetical, e-stop, shall be locked within 50 feet, 15 meters, of the boilers along the primary egress routes from the boiler."

So are there any questions or comments about that?

MR. BAUGHMAN: Is that 50 foot -- is there a code reference that goes to that

MR. TOTH: You're going to find that also in NFPA 79, which covers e-stops.

MR. BAUGHMAN: -- besides NFPA 79?

MR. TOTH: No. What they're going to do is they're going to point back. So NFPA 85, that will point back to 79. I'm trying to pick my brain for NBIC. I can't spit out the reference, Chris. Sorry about that.

MR. O'GUIN: NBIC part 1 does spell that out. Just --

MR. TOTH: It's under installations.


MR. BAUGHMAN: Good. Okay. I just wanted to make sure that we knew where to be able to point people.

CHAIRMAN MORELOCK: Okay. And so this is what drives people nuts on code committees, is the wordsmithing. And I'm apologizing now, but I'm going to go ahead and ask. So above we say, in Inquiry 2, pedestrian egress. Now we're saying in 3, primary egress. So what's the difference?

MR. BAUGHMAN: That's a good question.

MR. TOTH: What's the difference?

Primary, I would say an additional word, pedestrian under primary. Now, the reason is, and the reason why I say this, is that if we have a boiler sitting in the middle of this room, if I jump over this rail and head out that way, can I get out of the space of the boiler? Yes.

CHAIRMAN MORELOCK: Climb through a window or whatever, right?

MR. TOTH: Yeah. What is your primary ways of egress if it is the primary path, if you would.

CHAIRMAN MORELOCK: Well, and so --

MR. TOTH: A pedestrian.

CHAIRMAN MORELOCK: And so you just told us that if it's got an exit sign over it, that's your primary egress, right?

MR. TOTH: That's from a boiler room.

MR. FOX: Let me interrupt for just one second. This is like -- what he's talking about is a prime example of Carlex.

MR. TOTH: Carlex is a good example.

MR. FOX: Carlex does not have a boiler room. The boilers are located inside the plant. However, there are two main walkways in and out of there that people go, entering and leaving the area.

CHAIRMAN MORELOCK: Okay. So my question is if I put pedestrian egress in Reply 3, would that work and be consistent? I'm just asking.

MR. TOTH: It's really -- no. Yes. It's -- again, it's wordsmithing, but it's really what the board feels comfortable with. Will it add to confusion or leave confusion is what you're trying to get to.

CHAIRMAN MORELOCK: Right. You've got two statements, primary egress and pedestrian egress.

MR. BAUGHMAN: Make them consistent.
CHAIRMAN MORELOCK: Yes.

MR. TOTH: Yes. I'm comfortable with either way.

MR. BAUGHMAN: I would go with the pedestrian.

CHAIRMAN MORELOCK: Okay.

MR. HARGROVE: Yeah, that makes sense.

MR. BAUGHMAN: Well, and then again, it's to someone's judgment because its egress routes, so someone has to determine are there two means of going left and right. There again, that's owner --

MR. TOTH: And that really comes down to when the inspection unit goes out and inspects, they're asking the question on the permit. They're looking for information. There's also the ability for the installer or the owner-user to all but leave just the necessary equipment and say, "Hey, come and inspect my boiler room," and you go out there and realize that you have multiple egress points on an installation in the middle of a plant, but you only have one e-stop.

CHAIRMAN MORELOCK: Right.

MR. TOTH: Well, that inspector will come out and say, well, is this another -- you tell me what your pedestrian egress is.

CHAIRMAN MORELOCK: Right. And that's.

MR. TOTH: At a point like this or you see exits and say -- I ask the question, well, what if I'm back here, which way am I going.

CHAIRMAN MORELOCK: Well --

MR. TOTH: And so then that's when they say you've got to have another e-stop.

CHAIRMAN MORELOCK: So being consistent with the terminology will minimize confusion.

MR. TOTH: Absolutely.

CHAIRMAN MORELOCK: Okay. Good deal. So the only thing we've changed is on Reply 3, is we're going to say yes, the manually operated remote shut-down switch, parenthetical, e-stop, shall be located within 50 feet, parenthetical, 15 meters, of the boilers along the pedestrian egress routes from the boiler.

Any other questions or comments?

MR. BAUGHMAN: No. And particularly, just like with Carlex, I was thinking you've got these two boilers that are somewhat spread out. We've got 50 feet of distance between one and the other, give or take, but close. But then it's, like, my question -- and I didn't bring it up during the time -- but it was, well, we've got an e-stop within 50 feet; is it within 50 feet of both boilers in the center, or is it 50 feet from one boiler, which means it wouldn't meet 50 feet from the other.

I didn't bring that up, but there again, those are things that the inspectors will look at when they're there to be able to figure out.

MR. TOTH: And because of -- and you've got to use -- yes, you've got to use -- yes, it says 50 feet. But you also have to use some common knowledge or understanding of where we're at. You literally have almost a tunnel right there of things going on here. And pedestrian egress is either that way or this way.

Where are your e-stops? I'm heading out this way.

If I'm over on, you know, Boiler 2 and something happens on the back end of it, I'm heading past Boiler Number 1, you see. That's my egress. I'm hitting something on the way out.

MR. BOWERS: As an inspector, I look for it -- like, a pedestrian way and it's obvious where it's at. You don't want to ask the operator where's that e-stop? Oh, it's behind that beam over there.

MR. TOTH: Oh, no. It's got to -- you know, you go on the deep, and that can be something else that can be addressed at a later date. But when you start looking at the requirements for e-stops, e-stops are very specific when you look at NFPA 79 about the colors, the colors and the placards that show where the e-stops are at and what colors those are supposed to be. As we all know, we see on a regular basis the colors yellow and red. And the reason why we see those colors is because they're spelled out in NFPA 79 as the colors that will be utilized for e-stops.

CHAIRMAN MORELOCK: All right. I'm going to call the question. All in favor say aye.

(Affirmative response.)

CHAIRMAN MORELOCK: Opposed?

(No verbal response.)

CHAIRMAN MORELOCK: Abstentions?

(No verbal response.)
CHAIRMAN MORELOCK: Not voting?

(No verbal response.)

CHAIRMAN MORELOCK: Okay. That takes care of Inquiry and Reply Number 3.

Moving on to 4. Inquiry Number 4 says, "For a boiler equipped with a power burner, is it required for the manually operated remote shut-down switch to disconnect all fuel and electrical power to the boiler?"

Proposed reply is, "No. The switch need only shut off the fuel input to the boiler, for example, burner."

Questions? Comments?

MR. BAUGHMAN: Why are we addressing just the power burner in this inquiry?

MR. TOTH: Because I like to be specific.

MR. BAUGHMAN: Well, and I don't think --

MR. TOTH: And again, we're talking about power burners, and we're referring to power boilers. Okay?

MR. BAUGHMAN: Well, but this --

MR. TOTH: Well, now, you can have a power -- you -- technically, you can have a power burner on a low-pressure boiler. So, Mr. Baughman, this is a great example for you to interject in the inquiry what the intent is. And the intent here is talking about power burners on power boilers.

MR. BAUGHMAN: Well, and so we've got -- specifically, what we've done in this inquiry is we've narrowed down something that may give somewhat confusion in the boiler industry. And I want to make sure that we address this inquiry to where it says for a boiler equipped -- or for a boiler, not so much just specifying power burners, because --

MR. TOTH: Sure. Absolutely.

MR. BAUGHMAN: And for one, because the e-stops, also, as we get down to another inquiry down below, CSD-1 doesn't separate out power versus Section 1 versus Section 4.

MR. TOTH: No, it does not.

MR. BAUGHMAN: So that's where I'd like to take this out of being equipped with just a power burner. Now, this is just my input, and I'll listen to what others have to say about it, too.

But my end of it is for a boiler, Section 1 and Section 4, I believe that it should be able to, according to the code, cut off the fuel input. I'm not so much a fan of cutting off the electrical to the boiler. That's my point of view.

MR. BOWERS: Could you change it to fuel burner instead of power burner? Would that be --

MR. TOTH: Well, I think that Mr. Baughman made up a good point, and so do you, Mr. Bowers, is that do we want this to specifically address all boilers, this inquiry? Or is the intent of this inquiry to just represent power boilers? The reason is, is because until recently, the thought of requiring e-stops or enforcing e-stops on low-pressure boilers has not been one that has been enforced with the State of Tennessee.

CHAIRMAN MORELOCK: Well, your statement of need specifically says assigned to high-pressure boilers.

MR. TOTH: Right. And so --

CHAIRMAN MORELOCK: And so that would be the intent for all the inquiries, right?

MR. TOTH: Yeah. So where I'm going with this is be careful when we start taking out stuff and not adding the proper definition. If somebody reads that inquiry and that answer or that reply independently, they're going to put all boilers in there.

MR. BAUGHMAN: Well, and so we're saying that this addresses the power boilers, but yet our last inquiry is going to be addressing low pressure. So that doesn't necessarily hold true for what all this discussion is about.

MR. TOTH: But it also addresses exactly what -- in that last inquiry; whereas, this one does not.

MR. BAUGHMAN: Okay. It still leaves some room for some confusion.

CHAIRMAN MORELOCK: Well, to clarify it, you could make Reply 8 -- Inquiry 8 and Reply 8 a separate interpretation just for Section 4 boilers.

Mr. TOTH: And, Mr. Chairman, that could be something that I'd be happy to work with and come back in December and work with anybody else who's here and submit it to address low-pressure boilers because there has been changes made.
CHAIRMAN MORELOCK: Okay. I think that's a great recommendation.

MR. TOTH: And so we can remove that last inquiry. But getting back to Inquiry Number 4 for a second, I think Mr. Bowers raised a good question because the intent of this that is not written here is Number 1, power boiler; Number 2, fossil fuel, okay, natural gas/oil. Neither one of those did I mention. Okay? In my mind, they were implied. Obviously, it doesn't work that way, does it?

So what I think needs to be done with this inquiry is to not only address fuel burning boilers but also the electric boilers. Okay? But if we just address -- the difference between the two is electric boilers, if I turn off the energy source to those boilers, it doesn't matter what happens. It's off. We're talking about elements, either resistant or arc or whatever. It's done. But here, I want to be very specific as to those fuel-burning boilers. Does that make sense?

MR. BOWERS: Yes.

MR. TOTH: And so identifying, are we talking about fuel-burning boilers?

Fuel-burning power boilers is really where I'm looking at.

So for -- and then in the case if I were to amend this inquiry myself, I would suggest "for a fuel-burning powered boiler," and then remove "equipped with a power burner, as Mr. Baughman alluded to, and just go on with the rest of the inquiry.

CHAIRMAN MORELOCK: Okay. So the amended Inquiry 4 would read, "For a fuel-burning power boiler, is it required for the manually operated remote shut-down switch to disconnect all fuel and electrical power to the boiler," correct?

MR. TOTH: Correct.

CHAIRMAN MORELOCK: And then your reply would be, "No. The switch need only shut off the fuel" -- do you want to say fuel input or fuel source?

MR. TOTH: Either one.

CHAIRMAN MORELOCK: Okay.

MR. TOTH: And I believe we had mentioned it in previous discussion, the switch need only shut off all the fuel.

CHAIRMAN MORELOCK: Okay. All right. So we'll say the revised Reply 4 is, "No. The switch only" -- you want to say "need to shut off"?

MR. TOTH: It's wordsmithing.

CHAIRMAN MORELOCK: It is. Just say, "The switch need only shut off all the fuel input to the boiler, for example, burner," right?

MR. TOTH: Yes.

CHAIRMAN MORELOCK: Okay. Any other comments on that?

(No verbal response.)

CHAIRMAN MORELOCK: Hearing none, all in favor say aye.

(Affirmative response.)

CHAIRMAN MORELOCK: Opposed?

(No verbal response.)

CHAIRMAN MORELOCK: Abstentions?

(No verbal response.)

CHAIRMAN MORELOCK: Not voting?

(No verbal response.)

CHAIRMAN MORELOCK: So we've got that one passed as amended.

Going on to Inquiry 5. "Is it required for all high-pressure boilers installed in a location, for example, a boiler room, mechanical room, facility location, et cetera, to be electrically connected to a single manually operated remote shut-down switch, for example, e-stop, installed at all points of pedestrian egress, where the activation of the switch shall actuate the master fuel trip relays on all boilers within the location?"

And then the proposed reply would be, "No. However, this does not restrict the owner-user from doing so if they choose."

Any comments/questions about that?

MR. HARGROVE: Mr. Chairman, I'd like to ask the chief inspector and the associate inspector.

In your opinion, do you think this is a safety issue with regard to shutting down all the boilers or just one?

MR. CHAPMAN: My personal opinion on that -- and I'm going to speak personal -- is when something happens, you panic. So it's all depending on what is under the product that you're making. I'm not going to take and say, okay, did I hit the right one. I'm going to hit one and keep going. That's me. And even though -- because, you know, I look at it as if it's something that critical where you have to hit that button to shut a boiler down, you don't know...
1 exactly what's going on.
2 MR. HARGROVE: Or which boiler.
3 MR. CHAPMAN: Or which boiler.
4 But, you know, if -- you can always relay it back
5 off.
6 CHAIRMAN MORELOCK: Well, and my
7 only example of that would be, working in a
8 chemical plant, if you have a boiler that's in
9 trouble, yes, by all means you want to shut that
ten down.
11 MR. CHAPMAN: Yes.
12 CHAIRMAN MORELOCK: But if you shut
down all my other boilers and I lose my steam
14 source and I start freezing up polymer lines, I'm
15 going to have more problems than just a boiler.
16 MR. CHAPMAN: Well, you see, and
17 that's what I mean by it's all depending on what
18 the situation is.
19 CHAIRMAN MORELOCK: Yes.
20 MR. CHAPMAN: You know, because,
21 like, if you're in a standard boiler room and
22 something happened, on that same example on
23 that -- take, for instance, the fuel. If there's
24 a fire going on in there, you basically don't care
25 what's going to happen outside the plant. You
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1 need to try to get that boiler shut down.
2 CHAIRMAN MORELOCK: Oh, I agree
3 with that.
4 MR. CHAPMAN: Yeah. And see,
5 that's the reason I say it's all depending on what
6 the situation is.
7 MR. BOWERS: Could we do like the
8 NBIC and say "should"? Because it relates to the
9 situation.
10 MR. HARGROVE: Yeah. I wanted the
11 board to talk about this and the inspector.
12 MR. O'GUIN: I think if we don't
13 require it to be one e-stop, you're going to be
14 opening up for -- or everybody is going to be
15 wanting to put multiple e-stops in at doors and
16 you're going to be running into issues. Because
17 if one is about to blow up and you've got five,
18 you want them all killed anyway, because you're
19 not worried about the process. You're worried
20 about the safety of the public and the people in
21 the facility. So you can go back -- once in a
22 safe condition, you can go back and light your
23 other four boilers off to possibly prevent issues
24 in your processing plant. But at that current
25 time, at the emergency situation, you want to kill
Page 136
1 the hazard.
2 Now, that's my opinion.
3 CHAIRMAN MORELOCK: Yeah, I want to
4 stop the hazard. I'm just trying to balance
5 out -- I don't want to create more problems while
6 eliminating others.
7 MR. CHAPMAN: Exactly.
8 CHAIRMAN MORELOCK: That could be
9 just as bad as a boiler blowing up.
10 MR. TOTH: Well, Mr. Chairman, if I
11 can interject. And I understand the situation,
12 and if anybody knows me, they know I'm all about
13 safety. Let's kind of look at it from the point
14 of where are these e-stops at? These e-stops are
15 together. Doesn't matter if it's one boiler, two
16 boilers, five boilers. They're there. Okay?
17 They're all together. If there is a big enough
18 issue that's going on and it's unidentifiable
19 which boilers is being affected by it, hitting one
20 button, hitting five buttons is a matter of
21 probably one, one-and-a-half seconds, two seconds,
22 at the most. It's not a, "Let me see. I've got
23 Boiler Number 2. Which one is Boiler Number 2?"
24 That's not the case.
25 Number 2 is all about training.
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1 These individuals should be trained and should
2 understand. If it's their responsibility for the
3 safe operation of their boilers, they should be
4 trained accordingly. Panic is panic. You can't
5 say that it's one button and the boiler starts
6 going up, and that person is not just going to run
7 past it. Okay? So it's not really about the
8 number of e-stops.
9 Another situation that you're running
10 into is you have a hospital. So we had a variance
11 today where we had a hospital. That hospital has
12 four boilers. Right now that hospital has two
13 e-stops. When do you think they check those
14 e-stops to make sure they're working properly?
15 Never. They never check them. Because if they
16 hit that e-stop, it's going to kill all the
17 boilers and so the hospital -- yes. Okay. We can
18 restart it. Well, what happens if we have issues
19 with restarting it? There's all kinds of what
20 ifs, if we look at it.
21 Now, you look at a company like
22 Nokian, Nokian doesn't have a problem with that.
23 That's why I put it in here. It does not restrict
24 the owner-user from having one e-stop to kill all
25 their boilers. They're going to have two boilers.
Eventually, they're going to have four boilers.
We talked about it. And they said, "No, we're fine. If we're going to test it, it'll be fine."
I'll call over here to production and we'll schedule it where they're not in the middle of it and then we'll test our e-stop."

But when we say that we're doing it for safety, having an e-stop, no matter if it's for one boiler or for five boilers, you have the e-stops there. They are installed. They're not one e-stop is over here for Boiler Number 1, and one e-stop is way over here for Boiler Number 2 -- no. They're at the point of egress. I've been doing this a long time. Okay? Only recently did we find that we have a lot of people that are going away from it and saying, "We're going to have one e-stop that kills all boilers," because it will affect the process. And I promise you this: We're all about safety, but when we have something where somebody hits an e-stop and we've gone way above and beyond what the norm is and there's $100,000 worth of product loss, you're going to hear about it. And we can sit here and try to be naive and say it doesn't have anything to do with the boiler identified, taken offline, and the other boilers brought back up. So we shouldn't have an issue, necessarily, I think, with production. Although some processes don't like to have a variance of anything on the steam end of it.

But there's a lot of different scenarios that I've thought about after reading this on what I would have for a preference in my own plant if I was production-minded. And yes, we're weighing out dollars, we're weighing out technical capabilities, and we're doing this balancing. And we need to come back to what's the most sensible thing from a safety standpoint to addressing this equation.

And I just want to make sure that our focus is within that. I understand the other parameters. And we need to. But I also want to take a look at this from the common sense standpoint on what really makes the best sense from a safety standpoint.

Mr. TOTH: And I agree with that. However, let's look back at the governing bodies that spell out e-stops and have been around for decades. If the intent was to say that all boilers in a particular location in a particular boiler room or within a vicinity have to be on one e-stop, it would have been put in those codes.
And it's not. It's not been put in those codes, because it's not going to generate more safety, in my opinion. Okay? It's just going to restrict the ability to test those controls, to make sure that e-stop is cutting off Boiler Number 1. Because I promise you if you put them all on one, they're not going to test it, guys. They're not.

Mr. Hargrove: But maybe they should, though.

Mr. TOTH: I understand, Mr. Hargrove. But let's be -- are we doing this to increase safety? Is the increase of safety because we have one e-stop outweighing the burden or the potential of not being safe because we're not going to test it?

We can tell them all day long. I can tell them we can put five e-stops in there, and I can train them all day long to test them. I'm not going to be there.

We can only put it out there and say now abide by it. I just think that in this case here, I think we've overstretched it from years past.
Okay? There's some things that need to change and there's a reasoning behind it. But in my 30-plus years of experience in this industry, I don't see this as being the one that we need to look at.

MR. BOWERS: And we can't put all boilers in a package. You know, you've got some boilers that can easily be restarted. But years ago, I used to have Nissan and used to have Vanderbilt, and they got three big coal burners burning. You hit the e-stop and shut down three coal burner boilers, then you've got problems. Like Nissan, they don't have the coal burners no more. But when you shut down these huge boilers, they're just not easily restarted. It just takes a lot of work. And you only want to get the object that's the problem. You don't want to shut down your whole plant.

Yes, I agree with safety a hundred percent, and if you don't know what the situation is and you've got three e-stops, you hit all three of them.

CHAIRMAN MORELOCK: Well, like you said, if all of your three or four boilers are in one room and one is the problem and you hit one button and you shut them all down, that will work.

But you teach your people that way?

MR. BAUGHMAN: Yes. For one, I've got a -- and that gets back to the issue on the variance, which I've got a big issue with security guards trying to -- and that's where part of this is, and I'm envisioning a person that even though they've been trained and they've gone through all this and that and one thing or another, I've had enough meetings with them after their training and so forth to know the level of being uncomfortable. And we've got so many people that have been through either yours or mine or others that still feel uncomfortable. And we're giving the authority in so many of these installations to people that -- we're passing this and we're saying yes, they're supposed to be competent and they're being trained. And I don't personally feel that all of these people are. And so because of that, I'm trying to look at the overall picture. And I agree with virtually everything that's been laid out here, and I'm in a quandary about it myself because I can understand both sides of it.

My personal end of it is if there's something going on that's catastrophic, I just want to hit one and be done with it and boom.

But you could also shut the one down that's the problem and be bringing the one, two, three, four up and let it be a seamless transition so you've got all the time you need to fix what the problem with Boiler 1 is.

MR. TOTH: This is a great example, because I know Mr. Baughman does it as well, is when we train these people, if I have an operator that goes into a boiler room and everything looks fine and dandy, but I look at the water level and the water level on that boiler is out of sight low, what do we teach them to do? Trip the boiler, right? Tripping that boiler, there's no need to trip the other two boilers that are in that room, right?

But if I have one e-stop and I'm teaching my people, hey, that thing is in a low-fire condition, we've already established that all we're going to do is trip the fuel from that boiler, what's going to happen? Everything else is going to do its job and that boiler is going to come down. These other two boilers are operating. But I've tripped it as I've left the boiler room to make sure.

That's the way I teach my people. Do
are they going to hit one button and run? They
don't know anything about a boiler.
Because when you hit that one button,
what are we talking, five minutes, probably going
to be in safe mode, go back in there and cut all
the boilers off, energize them and figure out
which one was giving the issue, fire the others
back off.

We have a chemical plant that
contains Agent Orange. They have a process in
place. If they go down, they can sustain -- they
don't have a policy to start where they don't lose that
whole line that they can't lose pressure on. And
yes, we did test the e-stop.

MR. TOTH: Yeah. But the thing is,
is what you can't do -- and I understand it -- is
when you write code and when you write rules and
regulations, you've got to be really careful with
taking one example. You've got to be really
careful with that. Because when you do, you're
going to affect somebody else that doesn't operate
that way. So where I'm at with this is, this is a
situation or this is a process of installing
e-stops that hasn't changed in the code for years.
Why? Because it doesn't need to change. It's
been there and it's been addressed.

Now, there are some that we've seen
in codes that need to be changed, and those are
changed within the codes through the
interpretation process or the code case process.

CHAIRMAN MORELOCK: Or take out a
code item and change the book.

MR. TOTH: Or take out -- yeah,
take out a code item and get it changed.

This is a situation here that, in all
my years, I have not seen a problem until
recently. And it does cause an issue, and I am
worried about it. Because of the example that
Mr. Baughman mentioned in side discussion where he
went into a location and somebody had done some
work and the e-stops didn't work and the switches
to cut off the boilers didn't work. Okay?
And it's great if we have an
inspector there and then the inspector walks in
and says, "Okay. During my inspection, I want you
to show me that the e-stop works." Okay? But not
all inspectors are going to do that. They're not
going to be in that position to do that.
I want my clients to do that on a
regular basis. I don't want them to do it once a
year or once every two years.

CHAIRMAN MORELOCK: Well, and, I
guess, to Chris's concern, if you've got somebody
walking by the boiler and they -- if they're on
the 20-minute rule, that boiler attendant is going
to be checking that boiler every 20 minutes
anyway. So he should catch the problem pretty
quick. But if it's even on a remote, then you've
got a remote station with continuous monitoring,
and that guard, secretary, receptionist, whoever,
is going to get an annunciator on that panel that
the boiler is shutting down because there's a
problem, and then they hit the e-stop and they can
shut that down. And I just -- I mean, that's why
we approve those. We feel like that's a safe
ting thing to do.

If somebody is running out of the
plant, then that means something else is already
happening to where they're going to have to make a
decision to hit one button, three buttons, five
buttons, whatever. I would hope that it's not
just left up to that one person if they're going
by. I mean, there should be -- I mean, our whole
variance manual is built upon the safeguards to
make sure that people know what they're doing.
with Nokian Tyres, Nokian Tyres just wants one.

And -- because that's their choice.

MR. BAUGHMAN: And why do they want just one? Do you know?

MR. TOTH: It's probably a cost they didn't -- they were indifferent. When I talked to their engineer, they're indifferent. Because remember, they have -- they're going to have three locations coming out of the boiler room that's going to have e-stops. And so they do two now. If they do two later, if they just -- because of their process -- because their process is up and down. It's not a 24-hour...

And so when I asked them the question, I said, "How do you want to design this?" Because I did tell them -- because their e-stops weren't in. They were going through the process of installation, and so I forewarned them, "I don't see your e-stops in yet. Let's make sure we get those in." And I said, "By the way, you can either do all four boilers" -- and this is what I told them. I said, "You guys are going to be putting in Boiler 3 and 4 in the very near future. While you're going through the expense of putting the e-stops in for 1 and 2, why don't you just go ahead and run the conduit so you have your stations there?" And I said, "However, you can have one e-stop to kill all boilers." And I said, "The only thing is, is testing it, you've got to be able to test it. And we will put that in their process and their training how they're going to test that." And they were fine with it. You know what? It's fine. We can work with production and you know, when production is not up, that's when we can test that. And I'll say, "That'll work perfectly fine."

So now what are you looking at? You're looking at installation costs for that. You're keeping the same safety as you would if you would have had four of them. And that was their decision. And as their consultant, that's the way that I pointed them towards it.

MR. BOWERS: And that's why I agree. I said most places, because of money-wise, they're going to only put one e-stop in there.

MR. TOTH: Yeah, just put one. But there are some situations, there's an unnecessary burden put on when the code really doesn't back that up.

CHAIRMAN MORELOCK: Well, and just to take that --

MR. TOTH: And also process --

CHAIRMAN MORELOCK: And just to take that to the other extreme, we've seen Domtar's manual for their boiler internal inspection variance. Domtar and Eastman are similar in the fact that we don't have just panels like this. We've got control rooms built into each of our power houses where each operator has a line of sight with the boiler and a distributive control system. So they are continuously monitored. And so would you really want us to put one e-stop on a system like that? Because I think we're kind of overkilling it, as far as a control. We don't worry about -- I mean, you know, we can -- if you said you have to do one e-stop for multiple boilers, no other options, I mean, you can make a case why you wouldn't need to do that.

But I agree with Mr. Toth in the fact that he's saying we're not saying that you only have to have one. You can have one, or you can have multiple e-stops. So we're not saying that you have to put all your boilers on one e-stop. We're saying that you can, but you don't have to. Correct?

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the industry. But I really am conflicted on this, in all honesty. I see both points of it. And I want to make sure that whatever I vote is voted with my best conscience and doing due diligence and homework from my own standpoint. And I can either abstain or I can put in more due diligence.

CHAIRMAN MORELOCK: You can. So you're correct, you could abstain. You could actually vote this down. But that's not going to affect the four inquiries and responses we've already voted.

MR. BAUGHMAN: Good. Okay.

CHAIRMAN MORELOCK: And we could go ahead and finish the list, and what doesn't get passed, we can bring it back in the December meeting.

MR. BAUGHMAN: And that's just my personal end of it, so thank you.

CHAIRMAN MORELOCK: Okay. So the reply is, "No; however, this does not restrict the owner-user from doing so if they so choose."

MR. HARGROVE: I motion to defer Inquiry 5 until the next meeting.

MR. BOWERS: I second.

CHAIRMAN MORELOCK: Well, I've already got -- let's see. Do I have a motion on the floor to --

MR. BAILEY: No.

CHAIRMAN MORELOCK: No. Okay. So that's fair enough.

MR. HARGROVE: So retract.

CHAIRMAN MORELOCK: No, no, no. So your motion stands.

I've got a second. All in favor?

(Affirmative response.)

CHAIRMAN MORELOCK: Opposed?

(No verbal response.)

CHAIRMAN MORELOCK: Abstentions?

(No verbal response.)

CHAIRMAN MORELOCK: Not voting?

(No verbal response.)

CHAIRMAN MORELOCK: Okay. So we're going to defer Inquiry and Reply Number 5 to December.

Really good discussion.

MR. BAUGHMAN: It was a good discussion.

CHAIRMAN MORELOCK: We'll defer to the December meeting.

MR. BAUGHMAN: Thank you to everybody.

CHAIRMAN MORELOCK: Okay. Going on to Inquiry Number 6: "For a manually operated remote shut-down switch where the boiler room door is on the building exterior, is it allowable for the switch to be located just inside the door to the boiler room?"

The proposed reply is yes.

Any concerns, questions, comments?

MR. TOOTH: Straight from the code.

MR. FOX: One thing, which Inquiry Number 6 are we talking about? Because he's got it worded differently in the next one.

MR. TOOTH: We did the renumbering there, Mr. Fox.

CHAIRMAN MORELOCK: We renumbered the one below it to Number 7, and then the one below that to 8.

MR. FOX: The first Number 6.

CHAIRMAN MORELOCK: And then the last one is 9.

MR. TOOTH: Thank you for bringing that up again, Mr. Fox. I appreciate that.

CHAIRMAN MORELOCK: So any comments or questions?
needs to be on the external side of the boiler room door. Okay? Now, what it does go on to read is that if the door leads to the exterior of the building, then the e-stop may be installed just inside of the door. As to what Mr. Bowers was alluding to, if it is installed external to the boiler room, it needs to -- processes need to be put in place to prevent tampering.

MR. BAUGHMAN: Yes.

MR. TOTH: It doesn't tell you what you have to do. It just tells you that, you know...

MR. TOTH: I hope they do.

MR. BAUGHMAN: Well, I hope they do, too.

operating. I know what you mean.

MR. BAUGHMAN: Right. So the thing with it is, is that -- and it gets down to there's very little training in these, even though they are operating power boilers 5 horsepower above 15 psi. We have -- and I don't even know how many variances have been approved within the dry cleaning industry. And so we have a very low amount of training, and we've got an external boiler room that we've got an e-stop on the inside of the room. And I just think that -- and I agree there's so many installations where tampering is the biggest thing; somebody goes by and hits the e-stop. But there should be some identification on the building, if it is on the inside that identifies an emergency stop. But that's my only issue. The tampering, I agree with. We've dealt with that for years. But I have a problem with there not being any identification on where that e-stop is located. And the only way it's going to be identified is by the code, it saying it has been to be clearly identified as an emergency stop switch, which is going to be inside of the room itself.
MR. TOTH: That's clearly up to the --
CHAIRMAN MORELOCK: We're not the only jurisdiction that's battling that. So what are other jurisdictions doing about that? That would be interesting, you know, what are other people doing to train. But again, if we have a hazardous vapor release where I work, we've all been trained where the temporary havens are, which that's pretty easy to find, but we're also trained that the HVAC exhaust fans and all that stuff are supposed to automatically shut off. But we are trained to go to make sure that they have been shut off. And if they're not, where the e-stops are for them, to shut them off. And it goes back to training. I mean, you know, so...
MR. BOWERS: That's what I was going to get to, schools --
MR. TOTH: You know, you don't want people going in there -- if we know where the e-stop is, it's the individuals that are responsible for it.
Mr. Baughman, dealing with dry cleaners has been the bane of our existence in the boiler unit since the beginning of time. And that's where the inspector really comes into play, is the identification, taking those few minutes when you're going out there inspecting and doing the actual in-service inspection while the boilers are operating, recognizing the knowledge of the individual that's with you.
It's just -- you know, you start putting placards on walls saying "E-stop inside," that person that's operating a press in there, unless they've been trained as a boiler operator or a boiler attendant for that location, they ain't going to hit that e-stop anyway. You know that as well as I do.
MR. BAUGHMAN: Well, I disagree, but that's all right.
MR. TOTH: Oh, we can. But I promise you most of them are scared to death.

MR. BAUGHMAN: But if there is a --
and the only reason, this one came up a few weeks ago was this person at a dry cleaner that's at a press, happened to see the big, red placard that said "Emergency boiler shut-off switch," and hit that switch.
MR. TOTH: Was it outside?
MR. BAUGHMAN: The switch itself?
No. The switch was inside the plant.
MR. TOTH: Because the issue is that the code does require that it has to be identified. There's no doubt about that.
MR. BAUGHMAN: Yeah.
MR. TOTH: It just does not say that it has to be identified on the opposite side of the wall.
MR. BAUGHMAN: Right. Well, and that's my issue. This particular boiler room was external, but they had mounted the e-stop inside of the plant itself instead of the boiler room.
MR. TOTH: Okay.
MR. BAUGHMAN: And so if it had been mounted in the boiler room itself, she wouldn't have known anything. But it was inside of the plant. So I guess my quandary with that was that she would not have gone into the boiler room itself, looked for the e-stop to hit it inside of that room.
MR. TOTH: But if I may interject. So in your opinion -- and it's not testing you on this -- but in your opinion, did they have an e-stop actually in the boiler room or directly outside of the boiler room?
MR. BAUGHMAN: Inside of the plant.
MR. TOTH: Okay. They had it inside the plant. So in your opinion, does that follow the code?
MR. BAUGHMAN: As far as having an e-stop at the point of egress?
MR. TOTH: Right.
MR. BAUGHMAN: No.
MR. TOTH: Right. So in other words, it's great that they have that. It's above and beyond. But they needed to have an e-stop in that boiler room, too, or just outside that door of that boiler room.
So it's really hard when we, again, as I was saying, is take an individual and trying to create code off of an individual situation.
Because it does need to be labeled.
If this board decides -- I'm not against it. Don't get me wrong. But if this board decides that you want to put something in your rules that establishes e-stops even more, I'm all for it. If it establishes how it's going to be placarded or identified, I'm all for it. Just put it down in writing.

MR. BAUGHMAN: Sure. Well, and there again, the issue is if there's anything going on with the boiler, a fire, a gas leak or what have you, we've got a switch inside of the room to go and activate instead of being inside of the plant. And there again, it gets into this it's not a one-size-fits-all proposition.

MR. TOTH: Oh, sure.

MR. BAUGHMAN: And so I don't want it to -- I just hate it for being the only e-stop available if the customer says -- or if anybody says we put it inside of the boiler room and that's all we've got. We're good to go.

I would say that it's something that we can have in addition to another e-stop available, but I'd hate for that to be the only dog on e-stop --

MR. TOTH: Oh, yeah. I mean, we could go down the road of talking about how are they enunciating their alarms? What's the audible? What's the visual? If I have a boiler room over here, yeah, they're on the 20-minute rule, right? If they're on the 20-minute rule, how do they know it was an alarm? See, we can go down that road.

CHAIRMAN MORELOCK: Well, but --

MR. TOTH: But we're not because that's -- yeah.

CHAIRMAN MORELOCK: Anybody can exceed what the code requires.

MR. TOTH: Sure.

CHAIRMAN MORELOCK: There's no prohibition against that.

MR. BOWERS: We have 160, 170 metro schools with boiler rooms. If we had e-stops outside the door, we would have 160, 170 shut down boilers.

MR. TOTH: Oh, absolutely. You can put all kind of tamper-resistant and it don't matter. They're going to get to them.

MR. BAUGHMAN: Chewing gum, you name it.

CHAIRMAN MORELOCK: It's just like fire alarms, right?

MR. TOTH: I never pulled one of those.

CHAIRMAN MORELOCK: Okay. So before Mr. Toth incriminates himself, are we ready to vote on Inquiry 6 and Reply 6?

(No verbal response.)

CHAIRMAN MORELOCK: Any more comments?

(No verbal response.)

CHAIRMAN MORELOCK: Okay. I'm going to call the question. All in favor say aye.

(Affirmative response.)

CHAIRMAN MORELOCK: Opposed?

(No verbal response.)

CHAIRMAN MORELOCK: Abstentions?

(No verbal response.)

CHAIRMAN MORELOCK: Not voting?

(No verbal response.)

CHAIRMAN MORELOCK: All right.

Moving on to Inquiry Number 7. "For a manually operated remote shut-down switch where the boiler room door is on the exterior" --

MR. BAILEY: This one is interior.

MR. BAUGHMAN: For Number 7, where the boiler room door is on the building interior.

CHAIRMAN MORELOCK: Did I skip -- this is it right here, right? Because we just voted that one. So I'm right, correct?

MR. BAUGHMAN: We're right here (indicating). We changed that 6 to 7.

CHAIRMAN MORELOCK: Yep. Right.

That's right. That's where I'm at.

MR. BAUGHMAN: Okay.

CHAIRMAN MORELOCK: "For a manually operated remote shut-down switch where the boiler room door is on the building exterior" --

MR. BAUGHMAN: Interior.

MR. O'GUIN: Ours is interior.

CHAIRMAN MORELOCK: Oh, interior. Sorry. Okay. Thank you. Okay -- "leading to a place of assembly or foot traffic and subject to tampering, is it allowable for the switch to be located just outside the door to the boiler room?"

Proposed reply is yes.

MR. BAUGHMAN: That would be just inside the door to the boiler room.

CHAIRMAN MORELOCK: Yes. And this
really ties into the conversation we've just been having about the schools and all that.

MR. TOTH: With the schools, absolutely. Because the code only specifically states inside the door when in reference to an exterior door, this is allowing for those. Because we've all experienced it where there's foot traffic, somebody has bumped it, somebody has messed with it, somebody has done something. So now we're allowing -- or you're allowing -- so it had the same amount of safety, but you're allowing for it to be on the exit.

CHAIRMAN MORELOCK: Right.

MR. BAUGHMAN: And it will be on each door again.

CHAIRMAN MORELOCK: Each door.

Comments/questions?

(No verbal response.)

I'll call the question.

MR. BAILEY: Don't you need a motion?

CHAIRMAN MORELOCK: Do I have a second?

MR. BOWERS: Second.

CHAIRMAN MORELOCK: All in favor say aye.

(Affirmative response.)

CHAIRMAN MORELOCK: Opposed?

(No verbal response.)

CHAIRMAN MORELOCK: Abstentions?

(No verbal response.)

CHAIRMAN MORELOCK: Not voting?

(No verbal response.)

CHAIRMAN MORELOCK: Okay.

Sorry, Mr. Bailey. I thought we made a motion to go through them individually. But I can do individual motions as well.

MR. BAILEY: Oh, well, you may have. It's been a while.

CHAIRMAN MORELOCK: Okay. Moving along to Inquiry Number 8, "When an existing high-pressure boiler installation does not include a manually operated remote shut-down switch, is it required that these switches be retroactively installed, two boilers installed in the state of Tennessee?" And the proposed reply to Inquiry Number 8 is no.

Questions/comments about that?

(No verbal response.)

I'll call the question.

MR. BOWERS: Section F.

MR. TOTH: Right. E-stops should have been installed the whole time. Okay?

That's -- where we're getting back to that 2006 was when we implemented -- and we can go back through and look at the board minutes from 2006 and see when the installation permit was required.

My suggestion to the board would be to do that, find that date, and then any boiler installed after that date of the permit requirements has to have an e-stop. If it was installed prior to that, you could -- hey, again, guys, I'm all for it. If you go out there and you find a high-pressure boiler out there or even a low-pressure boiler -- but in this case, we're talking about a high-pressure boiler -- that don't have an emergency stop, absolutely put one in there. But boy, that's hard to enforce.

MR. FOX: That's the way I feel for any high-pressure boiler in the state of Tennessee
should have an e-stop.

MR. TOOTH: Yeah. It's just hard
to --

MR. BAUGHMAN: And the other --
MR. TOOTH: And if you want to do
that, you're going to set precedence and you're
going to -- yeah.

CHAIRMAN MORELOCK: So what if you
worded it that any boiler installed prior to the
Tennessee Rule 0800-3-3 requirement to have an
installation permit would be grandfathered or
whatever. But any boiler installed that required
an installation permit, you have to have those
e-stops.

MR. TOOTH: How about I do this:
Since we are already coming back in December --
CHAIRMAN MORELOCK: Do you want to
defer this one, too, and work on it?
MR. TOOTH: Yes. And the reason why
I say that is, Number 1, we're going to work on an
interpretation, and I'll work on submitting
something having to do with low-pressure boilers
and the new changes.

CHAIRMAN MORELOCK: Okay.

MR. TOOTH: On top of that, we have
mind, doesn't necessarily come into play as a
number as does ASME, which we adopted already
which mandates the e-stops. So I don't even think
that this needs to have a deferral, personally. I
think that it's pretty commonsense to all of us
that any installation, whether it's a 1912, which
even, to me, would mandate even more so that an
e-stop be put in rather than giving a deadline of
a date moving forward.

MR. TOOTH: Well, let me --
MR. BOWERS: But going back to
that, CSD-1 is only going to go to 12,500, which
is, you know, 12,500,000 --

MR. TOOTH: Less than 300.
MR. BOWERS: -- which is only going
to go to about 400 horsepower, maybe, something
like that, 300 horsepower. So anything over
300 horsepower goes to NFPA 85, which they're kind
of vague on that.

MR. TOOTH: They're actually not.
MR. BOWERS: Okay.
MR. TOOTH: It's just CSD-1 tends to
read a little bit easier. Okay? You've got to
really look at that NFPA 85. Here is the dilemma
that you're going to run into, okay, is that those
tabled Inquiry Number 5.
CHAIRMAN MORELOCK: That's correct.

Well, until December.

MR. TOOTH: Right, until December.

What I would like to do is let's go
back and kind of look at what Mr. Bowers was
saying about the permit installation. I'm with
Mr. Fox on this. I'm all for and I enforced it in
the past. When I was sitting in that seat right
there, they said I walked up on a boiler and they
just -- we're going to put in e-stops. I want to
defer some e-stops here.

But right now, what we have in place,
the practices, anything after the implementation
of the installation permit is required to say
we're going to have an e-stop.

MR. BAUGHMAN: And let me add
something. We adopted ASME CSD-1 quite a few
years ago.

MR. TOOTH: Way back.

MR. BAUGHMAN: Way before 2006's
permits.

MR. TOOTH: There you go. That's a
good thought.

MR. BAUGHMAN: So the 2006, in my
boilers were inspected. They were put into place.
We're saying CSD-1 has always required it. I
agree 100 percent. But we also did not have the
permitting process in place before.

So now you're going to go back -- and
I'm just playing devil's advocate here. Now
you're going to go back and you're going to walk
in there, and somebody that's been there for
20 years, okay, prior to 2006, and you say, "We
need to have e-stops in here and you need to go
through that expense." That is hard. That's hard
to enforce.

And so when we look at it and we say
okay, let's stop the bleeding. And by that we
say, "We knew we had something in place that said
a set of eyes should have been on this from the
state of Tennessee to find the e-stops since 2006.
You should have had one. If you don't, we're
going to make you get one." And then advise --
and then if -- Because we all know that when you
start tearing down that boiler and you have major
repairs to it, that's the time when you're able to
come in there and say, "Hey, we need to bring this
up to code," right? "If you're not going to bring
this up to code, we're going to condemn it."
That's usually been what the State's been able to lean on in years. But I agree with you, Mr. Baughman. I absolutely agree with you.

MR. BAUGHMAN: Well, and then, I mean, the -- and you bring up updating the CSD-1. It just says whenever repairs are performed to the boiler. It doesn't specify the amount of repairs, what qualifies as a repair, is it a code repair pressure vessel? Is it -- what qualifies as a repair?

But my end of it is, is that there's so many times when we're in the boiler room itself and we say, "Hey, we need to do this," and they say, "We've been doing this for 20 years and the inspector never made us do that." We deal with that. And so I understand the devil's advocate part of it. Put that out of play and get down to the safety end of it. We need to have a means of shutting the boiler off, regardless.

And whether we put a grandfather in that says, "If you don't have one already, we're going to give you X amount of time," a year or two, three years or whatever, I don't know. But the point of it is, is that I can't see that being valid when it comes down to safety.

MR. BAUGHMAN: Well, mean, the -- and you bring up updating the CSD-1. It just says whenever repairs are performed to the boiler. It doesn't specify the amount of repairs, what qualifies as a repair, is it a code repair pressure vessel? Is it -- what qualifies as a repair?

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And whether we put a grandfather in that says, "If you don't have one already, we're going to give you X amount of time," a year or two, three years or whatever, I don't know. But the point of it is, is that I can't see that being valid when it comes down to safety.

MR. TOTH: Perfect. Perfect. So now your answer is, is it required? Yes. Easy.

So now you say yes. Now, when they come back, now that's the discretion of the chief inspector when they get it done. Because if they don't have an e-stop, it's classified as a violation. Okay?

MR. BOWERS: Now, going back to the chief, he said -- I think it was, like, three years ago we had a -- that it was enforceable. So in the last three years, most inspectors have been either getting e-stops put in or violations.

There's probably a lot of e-stop violations out there right now. So we've been enforcing it for the last three years, and a high-pressure boiler gets inspected twice a year. So a lot of these older boilers should have e-stops unless the inspector isn't catching them. But I think a lot of it's done.

MR. TOTH: Well, then, Mr. Chairman, I remove my recommendation. Just change the reply.

CHAIRMAN MORELOCK: To yes?

MR. TOTH: Say yes. Now, I would be interested in seeing what the enforcing body thinks about that. What does the chief and assistant chief think about that? When you put it in writing.

It's not a verbal. It's there. Good.

MR. CHAPMAN: Okay.

CHAIRMAN MORELOCK: Okay. So the reply to Inquiry 8 has been changed from no to yes. And do I have a motion to accept the change?

MR. BAUGHMAN: So moved.

MR. BOWERS: Second.

CHAIRMAN MORELOCK: All in favor say aye.

(Affirmative response.)

CHAIRMAN MORELOCK: Opposed?

(No verbal response.)

CHAIRMAN MORELOCK: Abstentions?

(No verbal response.)

CHAIRMAN MORELOCK: Not voting?

(No verbal response.)

CHAIRMAN MORELOCK: All right. So that one is passed instead of deferred.

All right. So Inquiry 9, "In the state of Tennessee, is a manually operated remote shut-down switch required for installations of boilers defined under Section 4 of the ASME code for heating, low-pressure boilers? That's going to be a separate item that Mr. Toth is going to develop, and so we will not need to vote that
·1· today.
·2· MR. BOWERS: Now, on that one
·3· there, we need to look at 3.5.3.2 on potable hot
·4· water heaters. Because that was --
·5· MR. TOTH: I'll take a look at
·6· that.
·7· CHAIRMAN MORELOCK: 3.5.47
·8· MR. BOWERS: 3.5.3.2(b).
·9· MR. TOTH: Mr. Chairman, I will
take a look at that, do a little bit more research
on that for low-pressure boilers and have separate
interpretation request on that.
·10· CHAIRMAN MORELOCK: Very good.
·11· Ladies, thank you for your incredible
endurance. Everything on the back table is to
honor you for this diligence.
·12· That takes us down to Open
13· Discussion. And Doris Barnett will give us a
quarterly update on the boiler computer system and
Jurisdiction Online.
·14· MS. BARNETT: Currently,
15· Jurisdiction Online is still in the testing phase.
16· We started testing heavily a few weeks back. We
discovered a few issues with the way that it's put
together for us. And Jurisdiction Online is
17· pull-down for cubic inches where it says heating
18· surface? What do you feel about it?
19· MS. BARNETT: Apparently, he is
deferring the entire question to me. I think it
would probably be a good proposal. I don't know
if we can get it in -- I'm positive we can't get
it in by the end of September.
20· Whether or not we can have it
delivered by the time the rest of the process is
ready, we can put it on the proposal list.
21· They've offered to let us have a list of
22· additional things other than just Hartford and
Eastman to be delivered at the end of that time
frame. And so that's going to be an additional
23· four months minimum.
24· MR. BOWERS: It was just a
suggestion.
25· MS. BARNETT: So cubic inches?
26· MR. BOWERS: Yeah. Where it says
heating surface where we do unfired pressure
vessels, the heating surface don't really fit into
the criteria; where if you could put a pull-down
for cubic inches, that would help us on that.
27· MS. BARNETT: I've made a note of
that.
28·
CHAIRMAN MORELOCK: No, you'd want cubic feet for pressure vessels, right?

MR. BOWERS: Yeah.

MS. RHONE: For unfired.

MS. BARNETT: I believe we've got that already.

MR. BOWERS: I think the minimum is 5 cubic feet.

CHAIRMAN MORELOCK: So do we have any information on this additional work for Hartford and Eastman? Is there going to be associated fees to upload our data into that?

MS. BARNETT: I do not have that information right now.

CHAIRMAN MORELOCK: Okay.

MS. BARNETT: We're still working on getting the entire addendum for the contract. Right now, I don't know.

CHAIRMAN MORELOCK: Okay. All right. Any questions or comments?

(No verbal response.)

CHAIRMAN MORELOCK: Thank you very much for that update. And Deborah is going to give us an update on the 2019 and the 2020 Tennessee Boiler Safety Conference.

MS. RHONE: Okay. Yes. The 2019 state boiler inspector training will be held September the 23rd through the 27th in Gatlinburg at Black Bear Inn and Suites.

This year's agenda is going to include historical boiler training which will be at Dollywood. We're going to have some NBIC training, precision boiler training, Miura boiler training, and, also, CO2 training, just a few of the topics that will be included on the agenda.

And, also, for the 2020 boiler inspectors safety training -- of course, that will be open to state and deputy boiler inspectors -- and that's going to be conducted in the fall of 2020. The actual conference date and the location has not yet been determined. We are welcoming suggestions for the location, as well as agenda topics, presenters.

You know, last year when we had our training, there were some suggestions about some presenters. So we have those on file and we'll also be contacting those individuals to see if they're still willing to participate and be on the agenda.

Also, this is going to be a great opportunity in 2020 for companies to monetarily support and participate with the boiler safety conference by sponsoring or cosponsoring, let's say, a refreshment break, a reception, the banquet, items for the goody bag. Donations will be welcomed. You can also make those donations directly to the vendor or the venue. And additional information regarding either of these trainings, you may contact Chief Sam Chapman, Assistant Chief Chris O'Guin or myself.

So we're excited about our training. And thank you.

MR. TOTH: And is that for 2020?

MS. RHONE: 2020, yes.

CHAIRMAN MORELOCK: All right.

Very good report.

MR. BAUGHMAN: And not related to JO or with the boiler conference, but I know that we had some code updates, NBIC and so forth that have come about recently. While we're here together and just to kind of update me, I heard that it's now mandated for carbon monoxide detectors to be in each boiler room, so do we need to address that in some conversation within our next board meeting to make sure that information is getting out?

MR. CHAPMAN: Yes.

MR. BAUGHMAN: Okay. Because I've already starting talking to some. I just wanted to make sure that we produce that information going forward. Thank you.

MR. O'GUIN: Talking about the carbon monoxide, the state fire marshal's office does have a hold of that code now. And they are working with our planning director to see if it's something they can implement into the state fire marshal planning side. It has to go through them. So they are looking at that code as well. So they may be able to help.

MR. BOWERS: It would be good if they could come to our meeting in December, if one of the fire marshals could come to our meeting.

MR. O'GUIN: Well, if they have something back from it. They haven't come back with any answers yet, as far as what they can do to help.

MR. TOTH: I'm glad Mr. Baughman mentioned that. That was on my to-do list, to put in an interpretation on carbon monoxide and...
actually oxygen monitoring. So it's kind of one of those things that's going to be submitted. So that may help. There are a lot of questions coming up about that. And what can satisfy that.

CHAIRMAN MORELOCK: Well, if you have something prepared, let's get it on the December agenda.

MR. BAUGHMAN: When is the December meeting?

CHAIRMAN MORELOCK: Good segue. The next meeting will be December 11th at 9:00 a.m. right here at the Department of Labor Workforce and Development building.

And Item 12 is adjournment. So thank you-all for all of your input. It's a great meeting, a lot of good information shared, a lot of things that get vetted to make us safer. So thank you for all the hard work. Thank you.

END OF THE PROCEEDINGS.

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 18th day of September, 2019.

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 17th day of October, 2019.

Cassandra M. Beiling, CCR, LCR# 371
Notary Public State at Large
My commission expires: 3/15/2020
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