FOR THE CASE OF
Board of Boiler Rules

TRANSCRIPT OF
Board of Boiler Rules
June 15, 2016

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APPEARANCES:

1. Brian R. Morelock, Chairman
   Owner-User Representative
2. Eugene Robinson, Board Member
   Insurance Representative
3. Dr. Glen E. Johnson, Ph.D., P.E., Board Member
   Mechanical Engineer Representative
4. David W. Baughman, Board Member
   Owner/User Representative
5. Sam Chapman, Chief Boiler Inspector
7. Administrator, State of Tennessee
8. Dan Bailey, Esq.
9. Legal Counsel, State of Tennessee
10. Carlene Bennett
11. Board Secretary, State of Tennessee

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CHAIRMAN MORELOCK: Good morning,
everybody. I would like to call the Tennessee
Board of Boiler Rules meeting to order.

As far as introductions and
announcements, I do have a safety item I'd like
to -- we discuss it every time but it's worth
mentioning, especially since we have new visitors
coming to our meetings. But in the event of an
emergency, a natural disaster, we do have security
personnel in the building that will instruct us to
either go to a safe place within the building or
if we need to go outside the building we would be
on the Rosa Parks side of the building. So that's
your "safety moment" for today.

As far as other announcements go, I
do have a card for Dr. Domenic Canonico. He sent
me an email, and he is not able to travel, per
doctor's orders. And so I'm going to pass this
card around, and so if you would like to write him
a note, I'll collect that at the end of the
meeting and I'll make sure that he gets that. He
is recovering from a hospital stay, and so just
remember him and his family in your prayers.

Does anybody have any other
1. announcements?
2. (No verbal response.)
3. CHAIRMAN MORELOCK: Okay. If not,
4. let's move on to the introduction phase, and so
5. Ms. Cassandra, we'll start with you and we'll just
6. go around and let everybody introduce themselves.
7. THE REPORTER: Cassandra Beiling,
8. Stone and George Court Reporting.
9. MS. BENNETT: Carlene Bennett,
10. board secretary.
11. CHIEF INSPECTOR CHAPMAN: Sam
13. MR. ROBINSON: Eugene Robinson,
14. board member.
15. CHAIRMAN MORELOCK: Brian Morelock,
16. board member.
17. DR. JOHNSON: Glen Johnson, board
18. member.
19. MR. BAUGHMAN: Dave Baughman, board
20. member.
21. MS. JEFFERSON: Kim Jefferson,
22. administrator.
23. MR. BAILEY: Dan Bailey, legal
24. counsel.
25. MR. SWEZY: John Swezy, Boiler Code

1. Our next item is the adoption of the
2. agenda. And if you don't have an agenda, they're
3. on the back table, so certainly make that
4. available to yourself.
5. And as we look at the agenda, I would
6. recommend one slot change on Item 16-11, the
7. variance -- it says that U.S. Nitrogen is
8. requesting a variance. I would like to change
9. that to they're requesting a modification to an
10. existing variance, as they have an approved
11. variance from March 2015 for three boilers, and
12. this item is going to add a fourth. So I would
13. like to state that as a modification to an
14. existing variance.
15. Are there any other additions or
16. changes to the agenda?
17. (No verbal response.)
18. CHAIRMAN MORELOCK: All right.
19. Hearing none, do I have a motion to accept?
20. MR. BAUGHMAN: So moved.
21. CHAIRMAN MORELOCK: Second?
22. DR. JOHNSON: Second.
23. CHAIRMAN MORELOCK: Second.
24. Any other discussion?
25. (No verbal response.)
Okay. So old business, Item 15-20, update on the reorganization of Rule 0800-03-03 --

(Off the record discussion.)

CHAIRMAN MORELOCK: Oh, I'm sorry.

I'm sorry.

MR. BAILEY: I was going to say ...

CHAIRMAN MORELOCK: Thank you, Eugene. I'm jumping here. Let me go back to Item IV and do the Chief Boiler Inspector's report.

So, sorry about that, Sam.

CHIEF INSPECTOR CHAPMAN: Oh, that's quite all right.

Okay. For the chief's report, the number of inspections performed on the last quarter as the state inspector was 2,650. The insurance agency was 5,752, giving us a total of 8,402.

The total number that are delinquent for the State is 651. The insurance agency is 447, giving us a total of 1,098.

The number of code violations was 28. Uncorrected violations was 17.

We do have a variance process in place. The reporting period is from January through March of 2016.

Updates: Total members that have of funded boiler inspector position for the unit is 14. And the Tennessee Boiler Safety Fall Conference is scheduled for September and, upcoming, is doing this meeting.

CHAIRMAN MORELOCK: Okay.

MR. BAILEY: And that's the chief's report.

CHAIRMAN MORELOCK: All right.

Thank you, sir. Any questions or comments about the chief's report?

(No verbal response.)

CHAIRMAN MORELOCK: Okay. Hearing none, now I'll move on to Item V, which is old business. And it's Item 15-20, Update on the Reorganization of Rule 0800-03-03.

MR. BAILEY: The rules have been approved by the governor's office and the attorney general's office. I just got these this morning. They came while I was on vacation. But the A.G.'s office has approved them, so now it's a matter of submitting them to the Secretary of State's office, and then usually within 90 days after submission to the Secretary of State's office, they become effective.

CHAIRMAN MORELOCK: Okay.

MR. BAILEY: They'll send us a notice of the exact effective date at some point in time.

Now, what we did with these is -- what has been submitted so far and will be submitted to the Secretary of State's office is all the changes except the fee increases.

CHAIRMAN MORELOCK: Okay.

MR. BAILEY: We figured there probably wouldn't be any comments or public concern over those changes. Fees are always likely to generate comments, so we broke that out. And plus, the way the rule -- the way the statute reads on the fee increases, whenever those are approved, they do not go into effect until the following fiscal year, July 1.

CHAIRMAN MORELOCK: Okay.

MR. BAILEY: So given the time frame, we couldn't have got these approved and the fee go into effect July 1, 2016.

CHAIRMAN MORELOCK: Okay.

MR. BAILEY: So we figured we'd separate that out and do that separately, do that by the rulemaking hearing process. So once we know these are good to go, then I'll start that process of doing a rulemaking hearing on the fee increase.

CHAIRMAN MORELOCK: Okay.

MR. BAILEY: That's where we're at.

CHAIRMAN MORELOCK: Very good. Very good. We appreciate your efforts and all the work to get that ready for publication. Because it's going to be an improvement. It's going to make it more user friendly. And with the addition of the code references and -- it's just going to make it much easier for a new user of our rules to navigate through that, so we're pretty excited about that. So that's a great report. Thank you.

Any questions about the rules?

MR. GROSS: Jeremy Gross with Valero. Once the rule change has been approved and sent to the State for execution, will the owner/users like myself or others in the room be...
1. notified when that time comes?
2. CHAIRMAN MORELOCK: So I don't know. We typically at the boiler unit handle that. I don't know if that will be a mass email or a note to check the website. The updated rules will be published to the website so you can download those, so ...
3. MS. JEFFERSON: Yes. We have a mass email contact. I believe Carlene maintains that. We can send that to the folks on the mass email list.
4. CHAIRMAN MORELOCK: Okay.
5. MS. JEFFERSON: And, also, our website will be updated.
6. CHAIRMAN MORELOCK: Yes.
7. MS. BENNETT: If you haven't joined, you can go to our website and opt in for email notifications. And we do email-blast information like that.
8. CHAIRMAN MORELOCK: Okay. Very good. Any other questions?
9. (No verbal response.)
10. CHAIRMAN MORELOCK: And for Ms. Cassandra's benefit, when you do speak, go ahead and speak up so she can hear, because she's doing a lot of work to capture everything we say. And so it's very important for her to be able to hear you and know who you are.

Moving on to Item VI, which is New Business, our first item is Item 16-07. Boiler Code Tech, LLC is requesting to designate and install, and operate a foreign-made, second-hand vessel that was included in that package, and you'll see that it was designed with the intention of compliance with ASME Section VIII, Division 1 at the time of its construction in the 1995 edition.

According to the laws of South Africa, as stated in my cover letter, the laws in South Africa require compliance with the code with the exception of applying the ASME code civil stamp. And in addition, they also require participation by a third-party inspection agency similar to what we have here in the United States, but actually, more appropriately, along the lines of what's done under the pressure equipment directive in Europe. And so this is a notified-body organization that participated in this process. And that organization was Lloyd's Register. And so they had representatives at the facility overseeing the construction and testing and inspection of this vessel as it was being produced.

Once the vessel was completed and released, it was sent to the facility owned by Buckman's Laboratory in Australia where it was installed and operated for a number of years. That facility no longer had use for that particular heat exchanger, and so the corporate ownership, I believe, decided that it would be repurposed and shipped to the Memphis facility for installation and use under a slightly different operating and systemic purpose.

And so at that point in time, they shipped it with the documentation that was available. And then in the process of trying to figure out what was necessary to properly operate this piece of equipment, they contacted me for assistance in getting this presented to the State for consideration as a State Special for a number

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1. Tennessee.
2. I've sent you-all, in advance, a package of information regarding this heat exchanger starting with a cover letter from my corporate letterhead. And it describes not only the heat exchanger but the intended use of the heat exchanger and its intended use location.
3. This heat exchanger was originally designed and constructed in South Africa. The manufacturer of the heat exchanger, as you'll note, was LHL Engineering in South Africa. There is a certificate of construction in the pressure vessel that was included in that package, and you'll see that it was designed with the intention of compliance with ASME Section VIII, Division 1 at the time of its construction in the 1995 edition.

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1. of reasons. Number 1, because it does not have an  
2. ASME code stamp. And because of the fact that  
3. it's being brought in from outside of the United  
4. States, it was another area where they wanted to  
5. make sure it was properly addressed before the  
6. board so that you can properly consider its safety  
7. and purpose for what is intended.  
8. In this package, I included not only  
9. the Certificate of Construction for the pressure  
10. vessel but also the Lloyd's Register statement,  
11. their certification of this vessel as it was being  
12. produced.  
13. You'll also find that I included a  
14. copy of the second-hand permit, listing a  
15. description of the actual heat exchanger itself.  
16. There was also a photocopy of the photograph taken  
17. of the nameplate of this vessel so you could see  
18. all of its original certifications.  
19. In addition to that, there's also a  
20. report from an organization called Stronghold  
21. Inspection that did a very detailed visual and  
22. nondestructive examination inspection. The  
23. nondestructive examination was limited to do a  
24. UT thickness verification of the thicknesses of  
25. the heat exchanger itself. And so that report is

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1. included. It shows you all of the photographs  
2. that were taken. It makes note of any of the  
3. conditions that were found.  
4. And then there's a map of the  
5. thickness readings that were taken. And you'll  
6. find that all those thickness readings are then  
7. recorded with those map coordinates.  
8. And then following that there is a  
9. set of the original ASME code calculations that  
10. were performed by the design engineer at the time  
11. of its design. And I have taken the liberty of  
12. hopefully clarifying these calculations by going  
13. through and annotating the U.S. unit equivalence  
14. for all of the measurements and pressures and  
15. temperatures that are shown in these calculations  
16. just to make them a little bit more intuitive for  
17. you as you review it. And hopefully, as you have  
18. reviewed this, you've seen that everything at the  
19. time of the design was acceptable and hopefully,  
20. in comparison with the thickness reports that were  
21. generated by Stronghold, you'll see that the  
22. amount of thickness loss is very minimal and that  
23. this heat exchanger is in good condition. And I  
24. believe that it presents as a vessel that is  
25. perfectly safe for operation at its intended use

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1. as specified in the request for a second-hand  
2. installation.  
3. And so with that presentation, I  
4. would ask that you would consider granting it  
5. State Special status for installation and  
6. operation pursuant to the logistical things that  
7. need to be done, including the site inspections  
8. and the designation and marking of the vessel  
9. appropriately.  
10. CHAIRMAN MORELOCK: Okay. Do I  
11. have a motion?  
12. MR. BAUGHMAN: Motion made.  
13. CHAIRMAN MORELOCK: Okay. So I  
14. have a motion. Do I have a second?  
15. DR. JOHNSON: Second.  
16. CHAIRMAN MORELOCK: Okay. I have a  
17. second, so discussion? I'm opening the floor for  
18. any questions or comments of Mr. Swezy.  
19. MR. ROBINSON: Mr. Swezy, a couple  
20. of questions came to mind. Unfortunately, when I  
21. had gotten Lloyd's Register -- I guess it would be  
22. a CFC -- mine was cropped off. But then Chairman  
23. had given me his copy, and it says at the bottom,  
24. "This certificate is subject to the terms and  
25. conditions overleaf, which form a part of this

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1. certificate."  
2. Is that available?  
3. MR. SWEZY: It was not made  
4. available to me, sir. And I think that that  
5. overleaf was just a typical type of statement that  
6. you find at the bottom of an ASME data report  
7. where it's trying to provide a disclaimer of any  
8. liability on the part of Lloyd's. All they're  
9. doing is certifying compliance with the code and  
10. not accepting any liability. So that's my belief  
11. that that's what that overleaf contains.  
12. And I apologize for your copy not  
13. coming out correctly.  
14. MR. ROBINSON: No, no. It's okay.  
15. It's okay. And the reason for my question on that  
16. is because since I really don't have any objective  
17. evidence of quality, then I'm relying solely on  
18. Lloyd's Register --  
19. MR. SWEZY: Absolutely. I  
20. understand.  
21. MR. ROBINSON: -- to make my  
22. opinion. And --  
23. MR. SWEZY: I'm not sure if you're  
24. familiar with how the pressure equipment directive  
25. works.
Also, there are not a lot of drawings that I got was the best one that they had.

MR. SWEZY: And the quality of the drawing is not good.

MR. ROBINSON: No, sir.

MR. SWEZY: And the quality of the drawing that I got was the best one that they had available.

Also, there are not a lot of...
1. thicknesses and what have you, but I bring concern
2. of a 21-year-old vessel being manufactured out of
3. the country with somewhat limited documentation.
4. And the nomenclature or the verbiage of the
5. exchanger was constructed generally in accordance
6. with the requirements. That word "generally" is
7. somewhat open-ended to me.
8. But that was -- just having general
9. concerns with it and so relying upon more
10. expertise within other board members to bring some
11. more to the table on it.
12. DR. JOHNSON: I read it as though
13. the word "generally" was to take into account that
14. there was no stamp. Otherwise --
15. MR. SWEZY: That was the
16. intention --
17. DR. JOHNSON: Otherwise, everything
18. I see here is rigorous and I have seen things that
19. have come with much less good documentation than
20. what this one has come with.
21. MR. SWEZY: Yeah. And if you'll
22. note --
23. DR. JOHNSON: We're going back to
24. the origin of this vessel which I think is very
25. strong.

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1. CHAIRMAN MORELOCK: Well, and to
2. speak to that comment, even today, an owner/user
3. of a pressure vessel in the state of Tennessee can
4. have a vessel built to ASME code and not stamped.
5. I mean, you can -- if it's 15 PSIG or less or
6. 5 cubic feet or less, they can have that vessel
7. built to ASME code. It's exempt from regulation
8. by the State of Tennessee. And if they feel like
9. it's going to save them some money not to code
10. stamp it, they can get a certificate of compliance
11. from the manufacturer saying, "We have met all the
12. requirements of the code. We're just not putting
13. that ASME mark on it."
14. And so I think Mr. Swezy is trying to
15. help us see that that's been done. And, you know,
16. Eugene, to your concern about documentation, I
17. agree with your comment; however, you need to
18. realize that even under the ASME code process,
19. this vessel was built in 1995, so the record
20. retention requirements are long gone, you know,
21. under any system after 21 years. So it would be
22. nice if manufacturers would keep the records, but
23. they're not required to keep those records, so
24. then you're relying on this report that Mr. Swezy
25. has presented us.

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1. So my comments are as follows: What
2. I did -- I didn't do a rigorous analysis, but I
3. did do a basic compressed model of this vessel,
4. this heat exchanger, including the expansion joint
5. and everything. I didn't put all the nozzles and
6. stuff in because they were small, but all the
7. primary pressure components, I did analyze, and it
8. does satisfy the 1995 edition of the ASME code.
9. I talked to Mr. Swezy to let him
10. understand that in the state of Tennessee, a
11. vessel built prior to 1998 was designed under ASME
12. code when the design margin was 4.0. In 1998 the
13. code was changed to allow higher allowable
14. stresses and reduce that design margin to 3.5. So
15. a board case was processed by this board to say,
16. "We're not going to allow an owner/user or an
17. agent of an owner/user to do a paper re-rate of an
18. older pressure vessel to take advantage of higher
19. allowable stresses.
20. And so I wanted to let him
21. understand. That's why he has reevaluated his
22. work to the 1995 edition of the code, using the
23. 4.0 design margin. My compressed model was done
24. to the 1995 edition of the code as well.
25. And so the thicknesses that I

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1. calculated correspond to the thicknesses that are
2. in these original calculations, so I do feel the
3. vessel is safe.
4. So then it comes down to
5. documentation. As far as documentation goes, you
6. do have an inspection report, but that's not the
7. end-all to this vessel. Our approval -- the
8. Tennessee Board's approval of this vessel today
9. must be contingent on an inspection by the chief
10. inspector of the State of Tennessee or his
11. designated agent, deputy inspector, whoever he
12. chooses to physically go out and inspect that
13. vessel. And he may even require a hydrostatic
14. test before the unit goes into service. So our
15. approval will be a technical approval of the
16. documentation contingent on the boiler unit's
17. physical inspection of the vessel and them
18. agreeing that the vessel is safe to operate in the
19. state of Tennessee. So I did want to state that.
20. I guess just some grammar concerns,
21. on page 1 of 4 of your report, in the second
22. paragraph, it says, "The heat exchanger in
23. question is a vertical shell and tube condenser,
24. designed for single pass flow heat with fixed
25. tubesheets." So you may want to work on that just
1. And so as long as you understand those constraints
2. for a Tennessee Special, that's the extent of my
3. comments. Okay?
4. MR. SWEZY: Just a couple of quick
5. things I would like to say in response to
6. especially Mr. Robinson. In a previous employment
7. situation, I was a pressure safety engineer at
8. Oakridge National Laboratory. And we were tasked
9. with verifying the safety for continued operation
10. for a number of pressure vessels that were
11. installed at Oakridge. And so in the process of
12. doing so, we went through an extensive search and
13. inventory generation of all of the pressure
14. vessels. And out of all of the ones we found, we
15. found, like, 1,600 that we needed to review and
16. document. And out of those 1,600, probably
17. greater than half of them either had no code
18. stamp, no manufacturer's data report, no
19. documentation of any kind, and so we did a lot of
20. reverse engineering. And so for every one of
21. those pressure vessels -- and I mean every single
22. one -- we went through a UT thickness survey. I
23. did reverse engineering calculations, assigning
24. the most conservative, allowable stress that I
25. thought was appropriate for the materials of

1. construction, verified the remaining life of the
2. vessel, and then assigned an inspection interval
3. based upon that calculated remaining life.
4. And I went through a similar process
5. with this vessel in trying to verify its safety.
6. And, you know, I fully understand that, you know,
7. maybe the documentation isn't all that it should
8. be, but I think that we have gone to the point of
9. verifying to the best of our ability its current
10. state based on objective evidence that's presented
11. by Stronghold and by the application of these
12. calculations to make sure that it's as good as it
13. can be.
14. The other thing that I wanted to
15. point out is that whenever someone says that a
16. vessel is built in accordance with ASME with the
17. exception of applying the nameplate, that throws
18. up huge red flags for me. Okay? Having
19. previously been a staff technical expert for
20. Hartford Steam Boiler Inspection and Insurance,
21. whenever somebody said that they wanted to do
22. that, my response was always, "That's a sucker's
23. bet." Because when you don't apply a code simple
24. stamp, you don't have assurance that all aspects
25. of the code have been applied.
Well, the difference in this situation is the law of South Africa does not require the application of a code stamp, but it still requires the complete and full involvement of this inspection agency to carry out all tasks of the authorized inspector. And so that gap of not knowing whether you may or may not have applied all aspects of the code has been covered because that inspection agency is now required to certify compliance with the code. And like I said, they do so in a manner that's more typical of the PED, so I think it's been a more diligent process that we may have had with the type of inspection that's done under ASME, which is not -- you know, it's not inadequate under ASME. It's just not as invasive.

So I feel pretty confident of the condition of this exchanger, and I think that it will be verified by the inspection, when it's done by the state inspector for the initial installation, that it will bear out to be everything that we think that it is.

CHAIRMAN MORELOCK: Any other questions or comments?

MR. ROBINSON: The only other comment I had, I was just asking again and making sure that I had confirmation. There have been no alterations on this vessel at all?

MR. SWEZY: None at all to this heat exchanger.

MR. BAUGHMAN: Okay.

MR. SWEZY: It's been in good service and not required any -- and there's no repairs that I'm aware of either.

MR. BAUGHMAN: Okay.

MR. ROBINSON: And the skew of nozzles were part of the design?

MR. SWEZY: Pardon me?

MR. ROBINSON: The skew of nozzles are part of the design?

MR. SWEZY: Yes. They're there to provide for adequate drainage and ullage as the vessel is being drained or filled or whatever. So it's part of the design of the vessel to have those nozzles in the angles that they're at.

CHAIRMAN MORELOCK: Yeah. I noticed that too.

Any other questions?

(No verbal response.)

CHAIRMAN MORELOCK: Okay. So we have a motion to accept this vessel as a Tennessee Special contingent on inspection and testing requirements from the boiler unit. So any other discussion or comments?

(No verbal response.)

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

DR. JOHNSON: Aye.

MR. BAUGHMAN: Aye.

CHAIRMAN MORELOCK: Opposed?

MR. ROBINSON: One.

MS. BENNETT: Conflicts?

CHAIRMAN MORELOCK: Thank you.

Conflicts of interest?

(No verbal response.)

CHAIRMAN MORELOCK: Okay. All right. So opposed?

MR. ROBINSON: (Indicating.)

CHAIRMAN MORELOCK: One opposition. Abstentions, not voting?

(No verbal response.)

CHAIRMAN MORELOCK: So we have two yeas and one nay, and so that's not necessarily a tie. Is that going to be sufficient, Mr. Bailey?
1. a South African manufacturer manufacturing a
vessel under the rules of South Africa, in
accordance with ASME Section VIII, Division 1,
with Lloyd's Register as the authorized inspection
agency of record. And the vessel, after
completion, has been shipped to Australia, to the
Buckman Lab facility that's located there, and
installed and operated successfully for a number
of years until it was no longer considered needed.
And then management decided to ship it to the
Memphis facility for installation and repurposing
in another application.

I'm happy to report that the
available documentation on this vessel was much
greater in depth. I have included in the package
that I sent all of you inspection records for the
inspections during a time that it was in service
at the facility in Australia. I also have a
similar report from Stronghold on its current
condition in terms of its thickness and a visual
inspection of the vessel itself.

At the same time, I also performed a
Compress modeling of the vessel itself, including
all of its nozzles, showing that it is perfectly
acceptable and safe for its intended application.

And I also went back and did some
additional Compress calculations that I can
provide if you'd like, or I can show you on the
screen, to verify that it's very acceptable for
its name plate condition in addition to the
proposed conditions of operation that the
manufacturer in Tennessee use, including
verification that it meets the 1995 code as well.
And I also have the original 1995
code calculations performed by the same engineer
who did the design work on the heat exchanger that
I did not include in the package, but I would be
happy to provide those at your request as well.
I didn't want to make the submission
package so voluminous that it would be ridiculous
and unreasonable for you to be able to review and
consider everything, but I'm more than happy to
provide any of that documentation that you might
wish.

So this vessel, again, is being
repurposed in a new kind of a process stream with
different operating parameters than it was
originally designed for. The only thing that
Compress did not address in the model that I
prepared and included in the submission package
was the half-pipe coil design which I had to do
separately as a math CAT calculation. And that
was included in your document package as well.
In addition, the quality of the
drawings is much better, including -- there is a
drawing included that shows the actual location
where it's going to be installed and its
structural considerations that have been signed
off by a registered engineer in the state of
Tennessee.

And so I think the documentation
package is much more complete for this vessel.
And so under those similar considerations, we
propose that it be accepted for installation and
operation as a Tennessee State Special.

CHAIRMAN MORELOCK: Okay. Do I
have a motion?

DR. JOHNSON: I move that we accept
it.

CHAIRMAN MORELOCK: Okay. Do I
have a second?

MR. BAUGHMAN: Second.

CHAIRMAN MORELOCK: Okay. So I
have a second. All right. So I'll open the floor
for comments and discussion.

MR. ROBINSON: Mr. Swezy, was the
bottom head replaced?

MR. SWEZY: The implication from
the Stronghold inspection was that they believed
that it was. I do not know for sure if it was or
not. I think maybe they considered it to have
been replaced based on some visual cues that they
picked up when they were doing the inspection.
But I have no way of knowing for sure if it was
actually replaced or not.

MR. ROBINSON: On the external
inspections performed by Mr. Maskell, did he
notice that the helicoil piping had eroded?

MR. SWEZY: Yes. He did indicate
that he felt that the helicoil piping had eroded.
The calculations that I did for the halfpipe
demonstrate that the remaining thickness is more
than adequate for the intended service. The
actual pipe that was used when it was originally
installed was well in excess of what was required,
and so we still have a great deal of remaining
material that's more than adequate for the
intended service.

MR. ROBINSON: Out of the
inspection reports that I've seen, I have only
it was in a service
apparently did not believe it necessary to do an
internal inspection.

MR. ROBINSON: To your knowledge,
do you know the worst-case pitting that was
revealed during the internal inspection?

MR. SWEZY: When it was performed
by Stronghold?

MR. ROBINSON: Yes, sir.

MR. SWEZY: It's documented in
their report. There are a couple of places where
there may have been some localized thickness loss
that was greater than the general thickness loss.
But in the calculations that I did, I didn't
consider them to be sufficient to cause it to be
unsafe.
1. I went to the trouble of preparing a detailed
2. compress model for this vessel. If you'll notice,
3. the top of the vessel is bristling with nozzles.
4. MR. ROBINSON: Yes, sir.
5. MR. SWEZY: And often, when people
6. are looking at a fitness-for-service examination
7. for a vessel, they do it quick and dirty on the
8. head and the shell and ignore a lot of the
9. nozzles. And I wanted to make sure all of the
10. nozzles were good as well. And so that's why I
11. did the full Compress model, including all of the
12. nozzles and the re-pads and welds and everything,
13. because I wanted to make sure everything was good,
14. not just the head and the shells.
15. MR. ROBINSON: Yeah. I had
16. concerns on the flanges as well.
17. MR. SWEZY: Yeah. And the flanges
18. were good. The only flange I could not analyze
19. was the flange on the manway nozzle because I
20. didn't have enough dimensional information to be
21. able to model it. But that's something that could
22. be verified when the state inspection is being
23. performed. And if we need additional calculations
24. to support that, I would be happy to provide those
25. as well.

1. MR. ROBINSON: Well, during the
2. period of 1995 was when we had really sold a lot
3. of our raw steel to China. And intent -- we
4. started getting flanges or forgings -- forged
5. flanges that did not meet the ASME code.
6. MR. SWEZY: I'm well aware of that,
7. sir, yes.
8. MR. ROBINSON: They were stamped
9. appropriately but unfortunately they didn't have
10. the strength required for ASME. So 95, hence the
11. question regarding that.
12. MR. SWEZY: Right. And in most
13. cases, those flanges, I believe, were carbon
14. steel. This one was stainless, so hopefully it
15. wouldn't have the same concern. But again, any
16. additional PMI or calculations based on
17. dimensional information that came from that
18. flange, I'd be happy to provide that, in addition,
19. to follow up as part of the State's final
20. inspection.
21. MR. ROBINSON: That would be
22. definitely outstanding. Thank you.
23. CHAIRMAN MORELOCK: Okay. So we
24. have a motion on the table that's been seconded to
25. approve this vessel as a Tennessee Special

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1. maintain for annual certifications for the boiler
2. operators that are in our facility as well as any
3. modifications that may be made to this document
4. going forward in the future.
5. Currently, we are maintaining our
6. boilers at the annual frequency per state rules,
7. and we are looking to pursue to have a bi-annual
8. inspection frequency on our boilers at our site
9. per the checklist form and documentation that we
10. have generated.
11. I open it up to the board at this
12. point. We sent in our variance request. It is a
13. lengthy document, so I do appreciate your time and
14. efforts in looking at that and researching and
15. evaluating how our procedure looks. And I would
16. like to open it up for comments to the board.

CHAIRMAN MORELOCK: Okay. Before
we start the comment phase, do I have a motion
for this item?

DR. JOHNSON: I move that we
approve it.

MR. ROBINSON: Second.

CHAIRMAN MORELOCK: Okay. I have a
motion and a second. So discussion. The floor is
open for discussion.

MR. ROBINSON: Any conflicts?

CHAIRMAN MORELOCK: Oh, thank you.

Any conflicts of interest for this
item?

(No verbal response.)

CHAIRMAN MORELOCK: All right.

Comments?

MR. ROBINSON: Jeremy, welcome
back. It's always a pleasure to see you. Your
reports are very outstanding.

MR. GROSS: Thank you.

MR. ROBINSON: I do have a few
questions. If you could, define "BMS" on page 6
just the first time you mention it, Boiler
Management System. I think it's paragraph 1.2.

The safety switches on the boilers,
you've added the third, which is over and beyond
the requirements of CSD.

Are any of the switches manual type,
manual lockout reset type?

MR. GROSS: I'm going to have to
refer to Mr. Antes, on the report.

MR. ANTES: What page are you on?


MR. ANTES: What section?

MR. ROBINSON: Paragraph 1.2, I
believe. It's just boiler management system.

You've got BMS. Just put the words "boiler
management system" there.

MR. GROSS: Okay. Just take the
acronym out.

CHAIRMAN MORELOCK: That's just an
editorial comment.

MR. ROBINSON: It's editorial,
yeah. That way it will be defined going forward.

MR. GROSS: Yes, sir.

MR. ANTES: And, I'm sorry, what
was the question again?

MR. ROBINSON: On the safety
switches, you've got three each, extra -- well,
you've got extra redundancy.

MR. ANTES: Two out of three and
two out of four, that's correct, sir.

MR. ROBINSON: But on the high and
the low gas and the low-water cutoff, they're all
equipped with manual reset lockouts, right?

MR. ANTES: They have switches that
can manually activate to shut the boiler
down. Is that what you're asking?
1. Mr. Robinson: Sir?
2. Mr. Antes: An FSC system.
3. Mr. Robinson: Well, it's --
4. Mr. Antes: And SIS, which is also -- that must be reset by our DCS control personnel.
5. Mr. Robinson: That's what I'm looking for.
6. Mr. Antes: Okay.
7. Mr. Robinson: And those are for the low gas, high gas, and the low-water cutoff especially.
8. Mr. Antes: Yes.
10. Mr. Antes: That is all handled under our DCS group. They're the only ones that have access to that panel.
11. Mr. Robinson: Very well.
12. Mr. Antes: It's locked.
13. Mr. Robinson: Okay. I'm not really certain on this question, and the reason is because you guys are primarily API. And in reality, you're using API in conjunction with NBIC. Okay. So your risk-based program for your refinery is under API, but your boilers also now fall under the scope of NBIC risk base.
14. Chairman Morelock: For continued operation, that's correct.
15. Mr. Gross: That's correct.
16. Mr. Robinson: So you -- Chairman Morelock: But the NBIC part for continued operation would be API579. 580 is specifically for the --
17. Mr. Robinson: Refinery.
18. Chairman Morelock: Well, for operation -- fitness-for-service evaluations for operations to extend internal inspection frequency. So that's 580, 581, which Meridium and Aptech and places build software based on those two documents.
19. Mr. Robinson: Okay. So the question is should it be referenced also with the NBIC, because, again, we're now bringing the boilers under the scope of risk base.
20. Chairman Morelock: Certainly you can make a note that it does need to comply with ASME as well as NBIC. Yes.
22. Chairman Morelock: I mean, it's an inherent compliance based on Tennessee law.
23. Mr. Robinson: That's right.
24. Chairman Morelock: The rule is going to force you to use NBIC.
25. Mr. Gross: That is correct.
26. Mr. Robinson: Right. But again, he was specific in saying --
27. Chairman Morelock: Yes. Yes.
28. Mr. Robinson: I understand where you're coming from, Eugene.
29. Mr. Robinson: Thank you, Jeremy.
30. Mr. Gross: We have contractors that will come from out of state --
31. Chairman Morelock: Certainly you can make a note that it does need to comply with ASME as well as NBIC.
32. Mr. Gross: Sure. Absolutely.
33. Chairman Morelock: I mean, it's an inherent compliance based on Tennessee law.
34. It's, like, "No. Time out. Sorry.
35. We can't do that here."
36. Mr. Robinson: Thank you, sir.
37. Mr. Gross: I do appreciate that question.
38. Mr. Robinson: Okay. Appendix A, second paragraph, second sentence, change to "qualify operator." Remove the "s."
40. Mr. Gross: "We have to do an R-1 stamp." And it's very difficult when you utilize contractors from Texas or Louisiana because they're able to do that and they'll come in and, "We'll build that machine. It's not a problem."
41. Chairman Morelock: Right. That's right.
42. Mr. Gross: "We have to do an R-1 stamp." And it's very difficult when you utilize contractors from Texas or Louisiana because they're able to do that and they'll come in and, "We'll build that machine. It's not a problem."
43. Chairman Morelock: Where is that at again?
44. Mr. Robinson: Appendix A, second paragraph, second sentence, "qualified operators" goes to "operator."
45. Chairman Morelock: Oh, yes.
46. That's an editorial.
47. Mr. Robinson: Appendix J, paragraph 2, remove "external" and add "internal."
48. I think somebody --
49. Chairman Morelock: Is that Appendix J?
50. Mr. Robinson: Yeah.
51. Chairman Morelock: Appendix J is the --
52. Mr. Gross: That's my damage mechanism.
1. CHAIRMAN MORELOCK: Yeah.
2. MR. ROBINSON: That's the procedure.
3. CHAIRMAN MORELOCK: That's your damage mechanism, is Appendix J.
4. MR. ROBINSON: Okay. Well, let's see. It would be -- yes, forgive me. It was "I."
5. It would be Appendix I, paragraph 2. And here I'm going to give you a copy of something I circled. It came out of our divisional laws. This is an expired one. The current date on here is 2014. I couldn't pull up the newest revision. I've got it circled. Do you see how it's worded?
6. MR. GROSS: Yes, sir.
7. MR. ROBINSON: And it talks about --
8. MR. GROSS: Okay. Yeah, where we're doing the external inspection on your six-month intervals?
9. MR. ROBINSON: Right. You'll see it.
10. MR. GROSS: Okay.
11. MR. ROBINSON: And look under A. You'll see exactly what I'm saying, because you guys pulled the verbiage, I believe, directly from that.
12. MR. GROSS: So, Eugene, you're referring to "I" in the 2.1 paragraph, is that correct, on your application?
13. MR. ROBINSON: Under 1, where it says that power boilers and high-pressure -- high-temperature water boilers used or proposed to be used shall receive an inspection annually -- which is okay -- which shall be external. You've got "external" there.
14. MR. GROSS: Okay.
15. MR. ROBINSON: It should be "internal." And I would even go further and say "and an external inspection while the boiler is under normal operating conditions."
16. And if you read that paragraph, you'll see where you could have got twisted a little bit. Do you see what I mean?
17. MR. GROSS: Yes, sir. We can create a modification to that.
18. MR. ROBINSON: Okay.
19. CHAIRMAN MORELOCK: Well, okay.
20. So -- but the variance extends that annual internal inspection out to the owner/user's preference to anywhere from 18 to 24 months. And that's what you're asking for.
21. MR. GROSS: Yes, sir, that's correct.
22. CHAIRMAN MORELOCK: But, now, the certificate of inspection will be renewed annually, correct?
23. CHIEF INSPECTOR CHAPMAN: That's correct.
24. CHAIRMAN MORELOCK: So in that two-year span, one of those certificate renewals will have to be based upon an external inspection, not an internal, because of the variance.
25. MR. ANTES: That's correct.
26. MR. ROBINSON: I was under the impression that we were going to make adjustments to our certificate from the normal 12-month frequency to the 18-month frequency.
27. CHAIRMAN MORELOCK: And that's why the wording is so -- F will allow that. And so that's where I think the confusion is. So really and truly, the certificate of inspection would be based upon the internal, whether it's done at 12 months, 18 months, or 24 months.
28. Is that right, Dan?
29. MR. ROBINSON: So would the certificate expiration date reflect --
30. MS. JEFFERSON: Yes. Deborah --
31. MS. RHONE: Yes.
32. MR. ROBINSON: -- the new proposal?
33. MS. RHONE: Every time you get an internal inspection, you would receive a certificate. That would be the only time you would be issued a certificate, is during that internal inspection.
34. CHAIRMAN MORELOCK: I think that's what was leading to the conversation.
35. MR. ROBINSON: So that's --
36. CHAIRMAN MORELOCK: So I think your wording may be okay. Well, no, it's not. Because in 2.1 you're going to have to fix your wording to match the issuance of the certificate of inspection.
37. MR. ROBINSON: New certificate.
38. Okay. Paragraph -- okay. Stay with Appendix I, paragraph 2.2. And Mr. Chairman had...
1. brought this one up as well. "60 months." You
2. probably meant six months, I believe, but ...
3. MR. GROSS: From a cycling of the
4. equipment, yes, sir. And then also from a
5. startup/shutdown scenario of an incident occurring
6. during the characterization.
7. MR. BAUGHMAN: In just looking over
8. the boiler maintenance work orders, there was no
9. unscheduled repairs that had had to be performed;
10. is that correct?
11. MR. GROSS: That's correct.
12. MR. BAUGHMAN: So things as far as
13. the burner throats, the weld repairs and so forth
14. that came about, was that known before the
15. shutdown came about that those needed to be done,
16. or were those identified at the time the boiler
17. was inspected?
18. MR. GROSS: Those were identified
19. at the time the boiler was being inspected. That
20. is correct.
21. MR. BAUGHMAN: Okay. So you think
22. that that's not a critical component? If we
23. extend that out, that those repairs, i.e., the
24. boiler repair -- it was found at the time of
25. inspection -- so you think that by extending it to
26. a longer period of time, that that's good.
27. MR. GROSS: So from an equipment
28. degradation standpoint, no, sir, I do not think
29. that would be a positive from increasing your
30. interval except for when we're down and we're
31. maintaining those items through that work order
32. process. We feel like we can maintain those in a
33. safe condition. I think that was Number 10 that
34. you were looking at, that is our older boiler.
35. And our Number 11 is our newer boiler at this
36. time.
37. We are able to shut down these,
38. David, at any time and do any maintenance work
39. that would be required if we had an issue from an
40. operational standpoint.
41. We would go through a steam shedding
42. procedure. But we'd be able to shut down a few of
43. our other process units that are our big steam
44. consumers and make those necessary repairs.
45. However, through the monitoring and the
46. maintenance that we are performing on these, we
47. feel like we can sustain that 24-month interval.
48. MR. BAUGHMAN: Okay. Can any of
49. the switches be remotely reset?
50. MR. ANTES: Only by our maintenance
51. bypass keys that we have in the buildings. And
52. those are only used when we're actually doing
53. 1. Thank you.
54. CHAIRMAN MORELOCK: Any other
55. comments?
56. MR. BAUGHMAN: So why do you think
57. this is in the best interest?
58. MR. GROSS: So, David, what we're
59. looking to do is create less cycles on our
60. downtime for our equipment as far as being shut
61. down, and put that 18-to-24-month interval out
62. just to create that less cycling effect.
63. Obviously -- typically, your instances occur when
64. you're shutting down or starting up units,
65. equipment, fired equipment.
66. So for us, we also feel like, from a
67. safety standpoint, that this would take away
68. susceptibility for a safety incident during a
69. startup or shutdown or characterization of our
70. boiler during those events. So by doing that, it
71. would put us to the 18- or 24-month intervals
72. where we're lowering our susceptibility for an
73. incident during a startup or shutdown scenario.
74. MR. BAUGHMAN: So you think, based
75. on what you've found previously within Number 10
76. and Number 11 boilers, that this would actually
77. keep as status quo or increase the safety?
1. maintenance on them ourselves.
2. Of course, if you have a -- like I was talking about before, we have to have FSC and the SIS systems that our ACS group has to reset.
3. And then, of course, if the boiler trips itself, you have a reset switch on the panel that is required to be pushed. And then everything must be satisfied before it goes into a sequence to start up.
4. **MR. BAUGHMAN:** That panel being located where?
5. **MR. ANTES:** On the front of each boiler.
6. **MR. BAUGHMAN:** Very good.
7. **MR. ANTES:** Also, on boiler 11, there is also a DCS screen out there for the outside operator to look. It is a read only. So he can actually see what's going on, what the operator inside is looking at, as far as water level and all that.
8. **CHAIRMAN MORELOCK:** Any other comments?
9. **(No verbal response.)**
10. **CHAIRMAN MORELOCK:** All right.
11. Well, I've got just a few. One is just some advice. It would be good to include the checklist in your manual so that whether you or the State or anybody looks at the manual, they can kind of look at the checklist and see how you've addressed all of the components of the variance and kind of keep everything up to date.
12. **MR. GROSS:** Mr. Chairman, would you prefer that in an appendices or do you want to put it in the front section?
13. **CHAIRMAN MORELOCK:** An appendices in the back would be fine.
14. I do have a couple of questions.
15. One, does this variance manual state that operating under the variance, Tennessee Code Annotated 68-122-110(f), that it shall have internal inspections every six months, and if the boiler or boilers fail this external inspection, it will be required to be immediately shut down and the variance will be rescinded? That's checklist Items Number 5 and 6. So you need to put that verbiage in your manual.
16. The next item would be checklist Item Number 9. Does this manual state these boilers shall be fully attended per the boiler attendant rule and Rule 800-03-03.04, Rule 22? So you also need to stay -- I know you've got a DCS system and all, so you're providing basically 100 percent?
17. **MR. GROSS:** Yes, sir. And we have an outside assistant that makes a round less than -- at 20-minute intervals every day on each shift, day and night. Just indicate that?
18. **CHAIRMAN MORELOCK:** Just put it in writing, because we know it but it just helps to have it in writing.
19. **MR. GROSS:** Yes, sir.
20. **CHAIRMAN MORELOCK:** And on page 3, paragraph 5, you're stating, "The individual responsible for implementing the provisions of this program and the variance is the chief inspector, technical department."
21. My question is does this individual also have responsibility for the RBI program, the water treatment program? Because the checklist requires that you provide addresses, phone numbers, and fax numbers for the responsible individuals.
22. **MR. GROSS:** Yes, sir.
23. **CHAIRMAN MORELOCK:** So just clarify that. Okay?
24. **MR. GROSS:** Yes, sir.
25. **CHAIRMAN MORELOCK:** And that's the extent of my comments. Anything else?
26. **MR. BAUGHMAN:** Who is the inspection --
27. **MR. GROSS:** Are you talking about -- our insurance inspection agency is Arise. Mr. Ken Watson is our AI that comes out and does our external visual, our boiler inspection. He's the former state of Mississippi chief boiler inspector.
28. **MR. BAUGHMAN:** It was mentioned that they also agree with the extension.
29. **MR. GROSS:** Okay. Yes, sir. Dave.
30. **MR. BAUGHMAN:** I know that's listed in here or was discussed verbally, but I didn't know if there was a letter, as such, that they would possibly produce saying that they --
31. **MR. GROSS:** Right. We can provide that. Mr. Watson was actually supposed to be here but his schedule didn't allow him to show up. He was actually going to show up today and give his consent verbally. But we can get it in an email or a letter, a certified letter, to put in here as well.
CHAIRMAN MORELOCK: Any other comments?

(No verbal response.)

CHAIRMAN MORELOCK: Okay. So we have a motion and a second on the table to approve Valero's boiler internal inspection frequency variance contingent on, again, the chief inspector and the boiler unit inspecting the vessels, the boilers, reviewing your manual, making sure -- we're completing a technical review but they're going to actually make sure that what's on paper is actually what they're going to see in the field. And they'll complete that. So your approval of the variance is contingent on their inspection and review of the manual and making sure that it all works.

MR. GROSS: We'll schedule that with Sam --

CHAIRMAN MORELOCK: Okay.

MR. GROSS: -- for this upcoming October, November.

CHAIRMAN MORELOCK: Okay.

MR. GROSS: I do have one question. So we're working these boilers -- you know, 10 and Number 11 is later this fall -- if we do the first boiler and we can get approval from the chief boiler inspector to implement that, are we able to utilize the variance for the existing boiler that will be later this year? Or do we need to look at both boilers first and execute our procedure to gain our frequency?

CHIEF INSPECTOR CHAPMAN: It would be both.

MR. GROSS: Okay. We'll get both?

CHIEF INSPECTOR CHAPMAN: Yes.

MR. GROSS: No problem.

MR. BAUGHMAN: And again, that frequency is -- how long are we extending it?

CHAIRMAN MORELOCK: Basically it will go from an annual to a 24 month.

MR. BAUGHMAN: So we're asking for 24 month. That's good. Okay. I just want to make sure.

CHAIRMAN MORELOCK: Okay. Any other questions or comments?

(No verbal response.)

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

(Affirmative response.)

CHAIRMAN MORELOCK: Opposed?

MR. JAMES NEVILLE: James Neville, Neville Engineering.

MR. JONES: I'm Michael Jones, the recently hired plant manager for Maplehurst Bakeries plant in Lebanon.

MS. LeVAN: I'm Wendy LeVan and I'm an account manager with Boiler Supply.

MR. JAMES NEVILLE: We would like to request a variance on two Cleaver Brooks flex tube boilers that have recently been installed in Lebanon. Those boilers are up and running. In our site plan, on Figure 1, it shows the location of the boiler room and the remote station where we would like to monitor these boilers from, which is approximately 100 feet away.

That remote station, the name on that is the maintenance lead and ammonia engineer control room. That's where they plan on monitoring the boilers while on the variance. There is a change. They have decided to put this on their SCADA system, which is a control panel in that control room. And so they will have a dedicated screen for these two boilers on that SCADA system. So I do have a handout that
1. there's a modification to the variance that we
2. have in front of you. I would like to pass that
3. out because that shows the most updated control
4. scheme.
5. The individuals that will be
6. monitoring these boilers, both at the remote
7. station and as boiler attendants, their job titles
8. are the shift maintenance team leader and the
9. maintenance technician. So those will be at the
10. remote station and will be -- the boiler
11. attendants will be monitoring the boilers at the
12. beginning of the shift and the end of the shift.
13. In Appendix A, there were two items
14. that needed to be updated. And that was the
15. national board number. I do have those numbers
16. now. For Boiler 1, that number is 16250. And the
17. built date on that was January 21, 2016.
18. And for Boiler 2, the national board
19. number is 16261. And the date built is
21. Another thing to note is the boiler
22. feed system. That is an atmospheric boiler feed
23. system. And the controls on this will be the
24. Hawk 4000, and that utilizes a Cleaver Brooks 780E
25. burner control.

1. If there are any questions ...
2. CHAIRMAN MORELOCK: Okay. So do we
3. have a motion for this item?
4. MR. ROBINSON: Motion to approve.
5. CHAIRMAN MORELOCK: Okay. I have a
6. motion. Do I have a second?
7. DR. JOHNSON: Second.
8. CHAIRMAN MORELOCK: Okay. So
9. discussion?
10. MR. BAUGHMAN: James?
11. MR. JAMES NEVILLE: Yes?
12. MR. BAUGHMAN: These boilers were
13. provided by Boiler Supply?
14. MR. JAMES NEVILLE: Yes.
15. MR. BAUGHMAN: And what type of
16. boilers are they, Wendy?
17. MS. LeVAN: Flex boilers.
18. MR. BAUGHMAN: Which are what type
19. of boiler?
20. (No verbal response.)
22. tube?
23. MS. LeVAN: Water tube.
24. MR. BAUGHMAN: Okay. Note under
25. "Type" it says "Fire tube."

1. correct?
2. MR. JAMES NEVILLE: I believe -- I
3. can get the information on that, the Hawk 4000, on
4. the UL listing of that.
5. MR. BAUGHMAN: Because if that's
6. the case, that's interesting because we've been
7. approving these systems for a number of years.
8. MS. LeVAN: Forgive me. I may have
9. misspoke.
10. MR. JAMES NEVILLE: Now, if you
11. look at B1 under Equipment Description, on the
12. burner controller it says, "At the heart of the
13. Hawk 4000 is the dedicated UL."
14. MR. BAUGHMAN: 780?
15. MR. JAMES NEVILLE: The 780, yes.
16. MR. BAUGHMAN: The 780 is just the
17. programmer, though, on that system.
18. MR. JAMES NEVILLE: Correct.
19. MR. BAUGHMAN: And so what we've
20. got is a total system, being the 4000. That total
21. system needs to be UL listed instead of just one
22. specific component in it. And that's something we
23. need to identify.
24. MR. JAMES NEVILLE: Okay.
25. CHAIRMAN MORELOCK: Any other
1. comments?
2. I just have a couple. They're
3. editorial-type comments. It's a comment we make
4. quite often but make sure the text of your manual
5. with the job titles and the organizational chart
6. match. Sometimes there's slight discrepancies,
7. and you-all know it but we don't. So just make
8. sure all that text matches.
9. The other thing is in Appendix G.
10. These job descriptions, they do list the duties
11. for the training of the remote monitor, but I just
12. didn't see clearly any detail for the training and
13. the duties for the trained and qualified boiler
14. attendant. So if you can add that, that would be
15. most helpful.
16. MR. JAMES NEVILLE: Okay. There
17. are training classes that are -- being a part of
18. that, those job descriptions, we will update their
19. official training.
20. CHAIRMAN MORELOCK: Yeah. If you
21. will just add that so we'll know that, and that
22. will be just fine.
23. And that's all the comments I had.
24. MR. BAUGHMAN: I have one other
25. comment. And it just comes down to, on page 10,

1. the emergency procedures.
2. MR. JAMES NEVILLE: Yes.
3. MR. BAUGHMAN: It leaves off at
4. Number 5, which is calling. "Repeat Items 2
5. through 5 until acknowledgment is received." But
6. it ends there. And so the remote station makes
7. the call, says, "Boiler is in alarm status," and
8. that's where it ends. And if I'm sitting in the
9. remote station and this is what I'm going by, and
10. so I've made a call and I put the boiler to the
11. off position and -- I've made my phone calls. Now
12. what?
13. CHAIRMAN MORELOCK: I think the
14. detail you're looking for is on page 6.
15. MR. BAUGHMAN: Page 6?
16. CHAIRMAN MORELOCK: Yes.
17. MR. BAUGHMAN: Okay.
18. MR. JAMES NEVILLE: Right. So --
19. MR. BAUGHMAN: But this is actually
20. the placard.
21. CHAIRMAN MORELOCK: Right. That's
22. the placard.
23. MR. BAUGHMAN: So the placard is
24. what they're going by. They're not going by and
25. picking up and going to page 6. Nothing refers,

1. on the placard, to page 6. So the placard is in
2. there; the personnel are looking at this; they've
3. made their phone calls; that's the end of it.
4. This needs to have more detail to it
5. to describe to the remote station personnel what
6. the next step is after I make the call.
7. MR. JAMES NEVILLE: As far as
8. clearing the alarm?
9. MR. BAUGHMAN: As far as anything.
10. All they've done is they've made the phone call.
11. They've turned the switch to the off position.
12. They've made the call. Now -- that's all that's
13. been dictated to them. Is there not procedures
14. further, after that, that get dictated? In other
15. words, personnel, they would call them back and
16. say they've gone and made the clearing at the
17. boiler room itself and now it's okay to put the
18. boiler back to the on position and so forth.
19. MR. JAMES NEVILLE: Right. So as
20. far as the -- you know, once the boiler operator
21. has been notified, when they return to the boiler
22. room, then they must communicate with the remote
23. station to reset.
24. MR. BAUGHMAN: Oh, I agree. I
25. understand that. You and I understand it. The

1. remote station personnel may not understand that,
2. though. There's no protocol listed on what
3. happens after that phone call is made.
4. CHAIRMAN MORELOCK: Well, but I
5. think the disconnect I'm seeing is this: Once the
6. boiler is shut down and the calls have been made,
7. are you still in an emergency situation? Right?
8. Is that kind of what you're thinking?
9. MR. JAMES NEVILLE: That was why he
10. hadn't -- we just put --
11. CHAIRMAN MORELOCK: Because then,
12. once the boiler is shut down, the emergency is
13. over. Then they're back to their regular remote
14. monitoring boiler attendant duties, right? Is
15. that what you're thinking?
16. MR. JAMES NEVILLE: That was the
17. thinking on, you know, keeping the emergency part
18. of it -- just, you know, shut it down --
19. CHAIRMAN MORELOCK: Right.
20. MR. JAMES NEVILLE: -- call those
21. with responsibility to the boilers and ...
22. CHAIRMAN MORELOCK: Well -- or you
23. could copy Item 3 and 4 from page 6 onto the
24. yellow page and you're good to go. Either way
25. will work.
1. MR. BAUGHMAN: I just feel like if
2. this is the only placard they've got and this is
3. the placard that's been posted, this is what
4. they've got to refer to, it falls a little bit
5. short.
6. CHAIRMAN MORELOCK: Okay.
7. MR. BAUGHMAN: That's my two cents'
8. worth. That's open for discussion, but ...
9. How do you feel as a plant manager?
10. MR. JONES: I'm in agreement with
11. you. And as the Chairman has spoken, maybe we
12. need to take a 3 and 4 and we need to add it to it
13. and let us review it and make sure that we've got
14. our ducks in a row. Because we want to make sure
15. that we're in a safe condition.
16. CHAIRMAN MORELOCK: I mean, you
17. don't want to negate the fact that you've trained
18. them, per the manual.
19. MR. JONES: Right.
20. CHAIRMAN MORELOCK: So they're
21. going to know what to do beyond 5; it's just not
22. written down. But excellent point. I take no
23. issue with your comment. I agree with you.
24. MR. JAMES NEVILLE: We'll add a 6
25. and a 7 and refer back to page 6. I think that
26. will tie the loop.
27. CHAIRMAN MORELOCK: Okay. Any
28. other comments?
29. (No verbal response.)
30. CHAIRMAN MORELOCK: Okay. Hearing
31. none, we have a motion and a second on the table
32. to approve this variance to the Rule 22 attendant
33. rule. If there's no other questions or comments,
34. I'm going to call the question. All in favor say
35. "aye."
36. MR. BAUGHMAN: I'm sorry. I would
37. make that contingent upon the UL approval of the
38. controller itself.
39. CHAIRMAN MORELOCK: Good point.
40. Good point. Well, contingent on that, as well as
41. the site inspection by the chief boiler inspector,
42. as well. All these are always contingent on their
43. inspection of the facility, so -- okay.
44. MS. BENNETT: And did you do the
45. conflict already?
46. CHAIRMAN MORELOCK: Yes. Eugene
47. kept me honest.
48. Okay. So we have a motion to approve
49. based on contingency of verification of the UL on
50. the 4000 unit and site inspection by the chief
51. boiler inspector. So all in favor say "aye."
52. (Affirmative response.)
53. CHAIRMAN MORELOCK: Opposed?
54. (No verbal response.)
55. CHAIRMAN MORELOCK: Abstentions,
56. not voting?
57. (No verbal response.)
58. CHAIRMAN MORELOCK: You have an
59. approved variance.
60. MR. JONES: Thank you.
61. CHAIRMAN MORELOCK: Thank you.
62. And so to help out our chief
63. inspector, when the site visit comes, if you can
64. have the comments we've given you implemented into
65. your manual, that would be a big help to the
66. State.
67. MR. JAMES NEVILLE: And we
68. typically list those at the back of Appendix I.
69. CHAIRMAN MORELOCK: Yes.
70. MR. JAMES NEVILLE: We'll have
71. those updated for you.
72. MR. JONES: Just one question. As
73. we are a new facility and we're growing and we
74. haven't gotten to our full staff yet, so if we
75. make adjustments on contact persons, like,
1. conflict.
2. CHAIRMAN MORELOCK: Okay.
3. Conflicts of interest? Any?
4. MR. BAUGHMAN: Myself.
5. CHAIRMAN MORELOCK: Okay. So we do
6. have one conflict.
7. MR. JAMES NEVILLE: Again, James
8. Neville with Neville Engineering.
11. MR. HARRIS: Randy Harris.
13. CHAIRMAN MORELOCK: Welcome. Go
14. ahead and present your case.
15. MR. JAMES NEVILLE: Today we're
16. adding one waste heat boiler in Appendix A. That
17. is the fourth column that's identified as E3404.
18. That was manufactured by Struthers Wells Gulfport,
19. Inc. The date that that was built was 1987.
20. And I would like Marty to go over the
21. operations of that boiler and explain the -- as
22. far as the process -- the waste heat that they're
23. using.
24. MR. MOON: The waste heat is
25. generated by the oxidation of ammonia and air in
612.0x792.0

1. the presence of a platinum gauze upstream of the
2. boiler. It generates about 1600 degrees
3. Fahrenheit processed gas temp. That is passed
4. through the boiler through tubes and then on down
5. into the rest of our exchanger tray.
6. The loss of ammonia to that reaction
7. immediately would extinguish the heat source to
8. that boiler. It's about that simple, I guess is
9. the way to say it. Are there questions about it?
10. CHAIRMAN MORELOCK: Before we open
11. that, do I have a motion for this item?
12. MR. ROBINSON: Yes. Motion made.
13. CHAIRMAN MORELOCK: So moved. And
14. second?
15. DR. JOHNSON: Second.
16. CHAIRMAN MORELOCK: Okay.
17. Discussion?
18. MR. ROBINSON: This is a prior
19. approval?
20. (No verbal response.)
21. MR. ROBINSON: Is this a prior
22. approval? Do you have three other units?
23. MR. JAMES NEVILLE: Yes.
24. MR. ROBINSON: So right now you're
25. operating under an existing variance?
1. piggy-back off your comment, I went back and went
2. through our March 2015 meeting minutes, and that
3. was one of the comments, was that in Appendix G
4. you need to show that the operating shift
5. supervisor duties as being a boiler attendant.
6. What about the operator as well?
7. In March of 2015, the comment we gave
8. was receive one week of training on boiler
9. operations, specific equipment procedures and how
10. to monitor the boilers; be required to have
11. on-the-job orientation and training. And so that
12. comment was never implemented after our meeting in
13. March of 2015. So we need to add that to the
15. MR. JAMES NEVILLE: We will add
16. that to the -- under the -- for the operator under
17. the knowledge part. We'll add that as their
18. boiler training.
19. CHAIRMAN MORELOCK: And so what you
20. can do is go out to the state website, pull the
21. minutes up, and Cassandra has every bit of that
22. typed out for you perfectly.
23. MR. JAMES NEVILLE: Yes. Okay. We
24. will add that to both the operator and the
25. operating shift supervisor.

1. We'll still leave that currently under
2. construction, then.
3. MR. MOON: Okay.
4. CHAIRMAN MORELOCK: And I think
5. that's the extent of my comments. So any other
6. comments or questions?
7. MR. ROBINSON: No.
8. MR. BAUGHMAN: So with the waste
9. heat boiler, with the emergency procedure of --
10. it's different than with the fuel fire boilers,
11. but yet we're -- it's talking about shutting the
12. boiler down -- how do we shut the heat source off
13. in an emergency situation with it?
14. MR. MOON: There's an e-stop trip
15. button that's within the vicinity of the boiler
16. and the vicinity of the converter cone where the
17. heat is made. If you hit that button, it
18. automatically discontinues the ammonia flow to the
19. process and that automatically shuts off the heat
20. level.
21. CHAIRMAN MORELOCK: So could the
22. remote monitor shut it down as well?
23. MR. MOON: He absolutely can.
24. CHAIRMAN MORELOCK: Okay.
25. MR. MOON: He's got a button in the

1. control room.
2. CHAIRMAN MORELOCK: Okay.
3. MR. MOON: Or he can shut it off on
4. the DCS.
5. CHAIRMAN MORELOCK: Okay.
6. MR. BAUGHMAN: Other apparatus,
7. they could shut it down? Are there low waters, I
8. take it, that do the exact same thing, are tied
9. into that same circuit?
10. MR. MOON: Absolutely.
11. MR. BAUGHMAN: Okay.
12. Over-pressurization?
13. MR. MOON: Yeah.
14. MR. BAUGHMAN: Okay.
15. MR. MOON: And we even have a high
16. level because, for other reasons, we can impinge
17. water against our turbine, which is additionally
18. as bad. So yeah, those controls are all set
19. together.
20. MR. BAUGHMAN: So if you cut the
21. fuel source off, the feed water is a modulating
22. feed water on this particular unit?
23. MR. MOON: Yeah. Feed water is
24. supplied to outside battery limits and it's set up
25. on a control valve. So if you trip the boiler,
1. you'll lose the heat but you won't necessarily
2. lose feed water. It will just maintain a level.
3. MR. BAUGHMAN: Okay. So the feed
4. water modulating control is independent, and if
5. you hit the e-stop, it's not going to kill the
6. power to the modulating control valve?
7. MR. MOON: (Shakes head.)
8. MR. BAUGHMAN: Okay. Good.
9. CHAIRMAN MORELOCK: Any other
10. comments?
11. MR. ROBINSON: And if you hit the
12. e-stop, all of your fans or cooling apparatuses
13. will continue to run?
14. MR. MOON: Absolutely. Yeah, this
15. boiler doesn't have an FD or an ID, but the
16. cooling water system is still --
17. MR. ROBINSON: It'll still cycle.
18. MR. MOON: Uh-huh.
19. CHAIRMAN MORELOCK: Anything else?
20. (No verbal response.)
21. CHAIRMAN MORELOCK: Hearing none,
22. we've got a motion to approve the modification to
23. U.S. Nitrogen, the existing variance to add this
24. fourth waste heat boiler contingent on -- really
25. contingent on the site visit for all four boilers

1. and to check the operation.
2. And so with that, I'll call the
3. question. All in favor say "aye."
4. (Affirmative response.)
5. CHAIRMAN MORELOCK: Opposed?
6. (No verbal response.)
7. CHAIRMAN MORELOCK: Abstentions,
8. not voting?
9. MR. BAUGHMAN: I had a conflict on
10. that, so I retract that vote.
11. CHAIRMAN MORELOCK: So I will vote
12. in your absence to make sure we -- so I will vote
13. for.
14. And so you have an approved variance.
15. MR. JAMES NEVILLE: Thank you.
16. CHAIRMAN MORELOCK: That concludes
17. our new business.
18. Item IX is Open Discussion Items, and
19. Ms. Deborah Rhone is going to give us an update on
20. the fall conference.
21. MS. RHONE: The update for the
22. September 19th through the 23rd fall conference is
23. exciting. We're happy to say that plans are
24. ongoing to host that. And, of course, it's going
25. to be held here in the Nashville area, in this

1. building with the Tennessee Department of Labor,
2. the first floor, in the Pearl Room. And I'm not
3. sure if you-all have had the opportunity, all of
4. you all, but it is going to be in this building to
5. all of our guests.
6. The conference committee, as well as
7. a subcommittee, was formed to secure specific
8. information regarding the budget, financing,
9. presenters, marketing, things of that nature. The
10. host hotel is going to be the Millenium Maxwell
11. House. We have a projection of approximately
12. 150 persons in attendance.
13. Currently, the hotel contract is in
14. review by our legal division prior to signature.
15. We are preparing -- we have prepared, rather, a
16. draft agenda. We've had assistance from board
17. members for topics of interest. We've got room on
18. the agenda, of course, for any additional items.
19. We do have some exciting things planned, but we
20. are going to solicit if you guys would like to add
21. anything to the agenda.
22. To announce the conference, of
23. course, we will have the information on our
24. website. We'll be sending out documents with our
25. outgoing correspondence, like, with our

1. certificates and our invoices. Any type of
2. outgoing correspondence will include the
3. announcement. But, of course, we're going to have
4. to limit it to 150 participants.
5. The conference is going to be five
6. days. We'll have receptions and different things
7. planned. So we are very excited to announce this
8. and that the plans are underway.
9. CHAIRMAN MORELOCK: So Monday will
10. be the registration day?
11. MS. RHONE: Right, Monday. Most of
12. the participants will probably come in Monday
13. after their workday, and we'll have a registration
14. table available, and then Tuesday with the actual
15. conference and things kicking off.
16. CHAIRMAN MORELOCK: So you'll have
17. the conference kickoff on Tuesday, then the board
18. meeting on Wednesday --
19. MS. RHONE: Yes.
20. CHAIRMAN MORELOCK: -- and then
21. some additional, maybe, training or presenters on
22. Thursday?
23. MS. RHONE: Right. We will have
24. presenters for the training. Again, there's a
25. request for any national or ASME trainers to come
1. in and present to the audience as well.

2. **CHAIRMAN MORELOCK:** Okay.

3. **MS. RHONE:** And then we'll have --

4. the banquet will be that Thursday night. And then

5. that Friday we'll have a session, but it should

6. end around noon.

7. **CHAIRMAN MORELOCK:** Okay. Very

8. good.

9. **MS. RHONE:** So you'll all be

10. hearing from me.

11. **CHAIRMAN MORELOCK:** Does anybody

12. have any questions or comments?

13. **MR. BAUGHMAN:** You had mentioned

14. that we're going to limit it to 150 participants.

15. Is that correct, what I heard?

16. **MS. RHONE:** Right now, yes. Yes.

17. **MR. BAUGHMAN:** Okay. How are we

18. going to do that? I mean, first come first

19. served? You said --

20. **MS. RHONE:** Exactly. We're going

21. to put it out on the website as well as the

22. fliers, but, you know, we're going to have to

23. limit it.

24. **MR. BAUGHMAN:** Are we limiting it

25. to in-state personnel? I know in the past we've

1. had surrounding states, but I'm just trying to get

2. a grasp on our limitations of personnel, because

3. that would get -- I would anticipate that would

4. get booked up pretty quick.

5. **MS. RHONE:** No. We're not limiting

6. this to in-state. You know, in the past, we have

7. had some of the participants from the surrounding

8. states which has really been good. So no, we're

9. not limiting it.

10. **MR. BAUGHMAN:** Okay.

11. **MS. JEFFERSON:** And the reason why,

12. just to be clear, is because we're utilizing the

13. Pearl Room. We've had lots of really nice

14. functions in that room. We can fix it up, you

15. know, how we want it, conference style. Because

16. you all came and we had the "horseshoe" that

17. particular day. But we've had some really nice

18. events in that particular room, and we want to

19. utilize that. The capacity is 300, I believe.

20. **CHAIRMAN MORELOCK:** I think 150 is

21. about the max we've had in the past anyway.

22. **MS. RHONE:** It's a good average.

23. **CHAIRMAN MORELOCK:** It's actually

24. clever marketing because if you say it's limited

25. to 150, it will get people off the dime to

1. register.

2. **MR. BAUGHMAN:** So that would be 150

3. not including people like ourselves?

4. **MS. RHONE:** Yes.

5. **MR. BAUGHMAN:** Very good. Okay.

6. **CHAIRMAN MORELOCK:** All right.

7. Anything else?

8. **MR. ROBINSON:** Any prearrangements

9. for the hotel accommodations?

10. **MS. RHONE:** Yes. That's the

11. contract that's being reviewed now.

12. **CHAIRMAN MORELOCK:** Okay.

13. **MS. RHONE:** And once that's --

14. **MR. ROBINSON:** So are you going to

15. designate --

16. **MS. RHONE:** A block.

17. **MR. ROBINSON:** You're going to have

18. them -- yeah, a block of --

19. **MS. RHONE:** Yes, we'll designate a

20. block of rooms and then we'll be able to announce

21. that cut-off date and everything in the flier.

22. **CHAIRMAN MORELOCK:** Okay.

23. **MR. ROBINSON:** Okay.

24. **MR. BAUGHMAN:** Have we worked out a

25. cost?

1. **MS. RHONE:** Did you want to address

2. that?

3. **MS. JEFFERSON:** Sure. I think you

4. have the budget.

5. **MS. RHONE:** Oh, yeah, I've got the

6. budget.

7. **MS. JEFFERSON:** Are you talking

8. about the total cost?

9. **MS. RHONE:** Or are you talking

10. about the cost per --

11. **MR. BAUGHMAN:** No. Just the cost

12. for individuals.

13. **MS. JEFFERSON:** Oh.

14. **MS. RHONE:** Oh.

15. **MR. BAUGHMAN:** Not so much the

16. rooms, but for the participants.

17. **MS. JEFFERSON:** Oh, well, actually,

18. this will be a nice little treat to you all

19. because the Department will be paying for it.

20. That's why --

21. **MR. ROBINSON:** A hundred percent?

22. **MS. JEFFERSON:** Yes. We'll be

23. paying for it. And simply because we have to be

24. careful. We've talked about that before.

25. **CHAIRMAN MORELOCK:** Yes.
CHAIRMAN MORELOCK: For all 150 participants?

MS. JEFFERSON: (Nods head.)

CHAIRMAN MORELOCK: Wow. That is a gift.

MR. ROBINSON: That is really nice.

MS. JEFFERSON: It's just part of our training.

CHAIRMAN MORELOCK: Wow. Well, that will definitely speed up the registration process.

MS. RHONE: Thank you.

CHAIRMAN MORELOCK: Thank you, Deborah. That was excellent. And thank you all for the work you've done. That's pretty phenomenal.

MR. BAUGHMAN: This is big for us.

CHAIRMAN MORELOCK: Yeah, it is.

MS. JEFFERSON: We're looking forward to it.

CHAIRMAN MORELOCK: Very, very good.

Okay. Item XI -- or X is we have no rule cases or interpretations today.

And our next meeting will be at the fall conference, so we've already discussed that. So before we adjourn, we have some very important business to take care of that we kept off the agenda, even though he knows because he knows everything. But we want to take a few minutes to honor Dr. Johnson. This will be his last meeting with us, unfortunately. We had our sad goodbyes in 2012. And Dr. Judges had served faithfully for 11 years, up until then, from 2002 to 2012, and then he came back in '15 and '16 for a couple more. So he has served with us for 13 years very faithfully. We certainly appreciate his expertise representing academia.

I personally am thankful for his friendship and mentorship. It's always good to have colleagues and friends that are good enough to help you.

CHAIRMAN MORELOCK: So I'll let you step around there and they've got some gifts to give you.

MS. JEFFERSON: Well, Dr. Johnson, I think you know how much we appreciate you. And on behalf of the Department, Commissioner Burns Phillips -- unfortunately he couldn't come down because he's in another meeting -- but we wanted to say goodbye to you.

MS. JEFFERSON: Deborah. That was excellent. And thank you all.

CHAIRMAN MORELOCK: Thank you, very much.

MS. RHONE: Thank you.

CHAIRMAN MORELOCK: Wow. That is a gift.

MS. JEFFERSON: (Nods head.)

1. friends with you to call out your blind spots and say, "What are you doing?" And, you know, it's good to have that great accountability.

2. Dr. Johnson got his BSME, Bachelor of Science in Mechanical Engineering, from Worcester Polytechnic Institute in 1973. He went on to Georgia Institute of Technology in 1974 and got his master's degree. And then he finished up in 1978 at Vanderbilt to get his Ph.D. So this man is very well educated. And I went through his resume but, man, he's done it all. I mean, it would take another two hours to go through his many, many, many accomplishments. So he's very accomplished and we're so thankful to have him on our board. We do hate to lose you, but we certainly understand life goes on and life moves on.

3. But some things I did want to say -- and I'm going to let Kim and Sam and the board -- the State come up and actually make a presentation to you. But one thing that I really wanted you to know, that Dr. Johnson is an ASME fellow. And you're thinking, "So what? What is that?"

4. Well, when you put that into context, of all ASME members, that only 2 to 4 percent of the membership will ever achieve an ASME fellow status, that's very significant. And he received that in 2001.

5. He worked at Eastman Chemical Company for a few years, from 1974 to 1976. And the balance of his tenure has been in academia at various universities, currently residing at Tennessee Tech, where I went to college. I actually just last week celebrated 31 years of graduating from there myself.

6. And so with all of his work, mentoring young minds and pouring into young people and challenging them to be all they can be, we're indebted for your service. So thank you very much.

7. DR. JOHNSON: Thank you.

8. (Applause.)

9. And Dr. Judges had served faithfully for 11 years, up until then, from 2002 to 2012, and then he came back in '15 and '16 for a couple more. So he has served with us for 13 years very faithfully. We certainly appreciate his expertise representing academia.

10. I personally am thankful for his friendship and mentorship. It's always good to have colleagues and friends that are good enough
1. to give you this. This is just a small token of
2. our appreciation for everything that you've done,
3. because we know all the board members are unpaid.
4. You all don't receive any moneys for what you do.
5. You take time out of your own schedules to help us
6. and to provide your expertise and your skills.
7. And we really appreciate it. And so this is just
8. a small token.
9. Deborah, do you want to read this?
10. MS. RHONE: Presented to Dr. Glen
11. Johnson in appreciation for 12 years of service as
12. a member of the Tennessee Board of Boiler Rules on
13. this day, June 15th, 2016.
14. DR. JOHNSON: Thank you very much.
15. I'm not one for long speeches but I do appreciate
16. the collegiality that I've experienced with this
17. group. I've made good friends, and I think the
18. idea of the citizens board, where there is no
19. conversation but rather a love for service and a
20. desire to give back, is a very important part of
21. government. And I've enjoyed the time I've been
22. able to give.
23. MS. JEFFERSON: And, actually,
24. Carlene was very instrumental in assisting to
25. attain this certificate. It's a certificate of

1. appreciation.
2. Carlene, if you could just read a
3. little bit of that.
4. MS. BENNETT: Okay. The State
5. Capital by Bill Haslam, Governor, "By virtue of
6. the authority vested in me, I hereby confer upon
7. Dr. Glen E. Johnson the Certificate of
8. Appreciation in recognition of outstanding service
9. in the best interest and in the highest traditions
10. of the state of Tennessee."
11. DR. JOHNSON: Thank you. And thank
12. you, Governor Haslam.
13. MS. JEFFERSON: I would like to
14. take a picture and so we would like to have the
15. board come up as well.
16. CHAIRMAN MORELOCK: We are
17. officially adjourned.
18. END OF THE PROCEEDINGS.
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