

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

11 June 16, 2021
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16 ORIGINAL
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23 CASSANDRA M. BEILING, LCR# 371
24 STONE & GEORGE COURT REPORTING
25 2020 Fieldstone Parkway
Suite 900 - PMB 234
Franklin, Tennessee 37069
615.221.1089

1 APPEARANCES:

2 Brian Morelock, Chairman
Owner-User Representative

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

6 Harold F. Bowers
7 Insurance Representative
Centerville, Tennessee

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

10 Dr. Keith Hargrove, Board Member

11 Chris O'Guin, Chief Boiler Inspector

12 Mike Ryan, Assistant Chief Boiler Inspector

13 Thomas Herrod
14 Assistant Commissioner, State of Tennessee

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

16 Carlene T. Bennett
17 Board Secretary, State of Tennessee

18 Jamie Presson
Executive Admin. Assistant, State of Tennessee

19 Michelle Irion
20 Boiler Admin. Staff Supervisor, State of Tennessee

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1 Guest Appearances:

2 EASTMAN CHEMICAL COMPANY
Mike Rehart, Vessel Designer

3 NEVILLE ENGINEERING
4 James Neville

5 FM GLOBAL
Philip Hencherick
6 Branden Matue

7 TASCA
Vivian Paris

8
9 BRADLEY, ARANT, BOULT, CUMMINGS, LLP
Christopher Puri, Attorney for STERIS Corporation

10 STERIS CORPORATION
Marie LaFrance, Senior Product Manager
11 Mark Chiffon
Dean Averell

12 TRISTAR SOUTHERN HILLS MEDICAL CENTER
13 David Lytle

14 A.O. SMITH CORPORATION
Joshua Greene, Corporate Vice-president of Global
15 Government Affairs and Industry Affairs
Greg Reynolds, Global Director of Certification
16 and Reliability,

17 LOCHINVAR, LLC
Jeff Kleiss, Senior Product Engineer on behalf
18 of A.O. Smith Corporation

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20 Court Reporting Services

21 STONE & GEORGE COURT REPORTING
Cassandra M. Beiling, LCR

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24 ** Reporter's Note: All names are spelled
phonetically unless otherwise provided to the
25 Reporter by the parties.

A G E N D A

- 1
- 2 I. Call Meeting to Order
- 3 II. Introductions and Announcements
- 4 III. Adoption of Agenda
- 5 IV. Approval of the March 10, 2021 Meeting
Minutes
- 6 V. Chief Boiler Inspector's Report
- 7 VI. Variance Report
- 8 VII. Old Business
9 21-01 -TriStar Southern Hills Medical Center
- 10 VIII. New Business
11 21-02 -Eastman Chemical Company
12 21-03 -STERIS Corporation
- 13 IX. Rule Case & Interpretations
BI 21-02 ECS Consulting, LLC
- 14 BI 21-03 A.O. Smith Corporation
- 15 X. Open Discussion Items
David Baughman
16 Tennessee Code Annotated 68-122-110
- 17 Variance Guideline & Checklist Revisions
- 18 XI. Announcement of Next Meeting
19 Unless the Board decides otherwise, the
20 next regularly scheduled meeting of the
21 Board of Boiler Rules will be held 9:00 a.m.
22 September 15, 2021, at the State of
Tennessee Department of Labor and Workforce
Development building located at 220 French
Landing Drive, Nashville, Tennessee.
- 23 XII. Adjournment
- 24
- 25

1 * * * * *

2 CHAIRMAN MORELOCK: Good morning,
3 everybody. I have 9:00. And I would like to call
4 to order this meeting of the Tennessee Board of
5 Boiler Rules.

6 If you have an agenda --

7 MS. BENNETT: Chairman, can you
8 activate your microphone?

9 CHAIRMAN MORELOCK: Oh, thank you
10 very much. You'll have to stay on me about that,
11 among other things.

12 But I do want to welcome everybody
13 this morning. It is great to be able to see
14 people face to face. I can't tell you how
15 enjoyable this is today.

16 Make yourself at home. I hope you
17 enjoy the meeting. We have a lot of good
18 technical items to talk about. I hope everybody
19 has an agenda. If you don't, they're right at the
20 door where you come in. There's refreshments
21 behind me. Restrooms are down the hall.

22 And so with that, I'm going to move
23 on to introductions and announcements. And so my
24 first item -- we always want to start out with the
25 safety item. And so we're in the Department of

1 Labor building today, and if by chance there was
2 some inclement weather or any type of emergency,
3 just know that we have security personnel that
4 would lead us to a safe place inside the building
5 or if we had to go outside the building, we would
6 assemble outside on the Rosa Parks side of this
7 building. So that's just your safety moment here
8 this morning.

9 I would also ask that -- we're in a
10 big room, so we do have microphones, if I remember
11 to turn them on. But please speak up. If you
12 can't hear, let us know so we can speak up more.
13 I want to make sure everybody has good, clear
14 communication as we go through these items today.

15 I would also ask that you would
16 silence your cell phones out of respect for the
17 conversations and the presentations that we're
18 going to hear today.

19 And I also wanted to make mention of
20 something that's very important to us Tennesseans,
21 is June the 1st of 2021, this great state
22 celebrated 225 years of statehood. So I wanted to
23 recognize that. That's a great date to celebrate.

24 I do have some sad news for us, as
25 the board, but today -- well, not today, but this

1 will be our last board meeting with Carlene
2 Bennett. She is going to retire on July the 9th.
3 So we're going to wish her well today as best we
4 can.

5 So we thank you, Carlene, for the
6 many, many, many hours of putting all this
7 material together so that we can have a productive
8 meeting. And we are very appreciative of what
9 you've done for us, so thank you for that.

10 MS. BENNETT: Thank you.

11 CHAIRMAN MORELOCK: So that's all
12 the announcements I have. I'm going to turn it
13 over to Mr. Herrod, and he's got some
14 announcements to make.

15 MR. HERROD: Thank you,
16 Mr. Chairman.

17 I'm proud to announce that Chris
18 O'Guin is now our Boiler Chief, having assumed
19 that office position back in April. He's been the
20 assistant chief for awhile and served as an
21 inspector for the State for a few years. So he
22 has all the background and has all the experience
23 and he's doing a fantastic job.

24 As long as I've been in my position,
25 I can count on him to always do what's best for

1 the State of Tennessee. So congratulations to
2 Chris. It's well deserved.

3 Also, Mike Ryan has assumed the
4 position of Assistant Chief. He's been an
5 inspector with us for a couple years and very
6 talented, very knowledgeable, and no doubt he's
7 going to take some of the load off of Chris that
8 Chris has had to bear for a while. So Mike is
9 very talented and we're thankful that we was able
10 to be in a position to take this role on for us.

11 And again, Carlene is leaving us, I'm
12 sorry to say, not only as board secretary, but
13 also, in the boiler unit, she has been very
14 valuable. We'll miss her tremendously.

15 Michelle Irion, who is now the admin
16 supervisor for boilers, having taken that position
17 over a few months ago. And she's very talented,
18 having come from TOSHA, so she has a good
19 background there. And she's going to be the board
20 secretary. So while we hate to see Carlene leave,
21 she has a good person to take over those roles.
22 So we've been blessed having Carlene and we're
23 blessed to have Michelle take that position.

24 So I'm thankful for these people and
25 the talents that they have and what they're going

1 to bring to the board. Thank you.

2 CHAIRMAN MORELOCK: Thank you,
3 Mr. Herrod.

4 And so I do have one more
5 announcement to make. The National Board of
6 Boiler Pressure Vessel Inspectors, at their last
7 general meeting, voted Mr. Chris O'Guin as a
8 member of the National Board. So we do want to
9 congratulate him for that, too, because that's a
10 worthy office. So we appreciate your willingness
11 to serve in that capacity and be inducted on the
12 National Board. So congratulations.

13 CHIEF O'GUIN: Thank you.

14 CHAIRMAN MORELOCK: Are there any
15 other announcements before I move on?

16 MR. BOWERS: I guess I do.

17 CHAIRMAN MORELOCK: Mr. Bowers?

18 MR. BOWERS: I'll do my
19 introduction and move on from there. Harold
20 Bowers, board member and inspector with the
21 FM Global Insurance Company.

22 And I wanted to recognize a couple of
23 visitors. Phil Hencherick. He's my boss. He's
24 the assistant vice president and the operations
25 chief out of the Atlanta office. And he handles

1 all of the southeast states, seven states, so he
2 deals with the seven different jurisdictions and
3 seven different sets of laws and seven
4 different -- it changes all the time.

5 I also recognize Branden Matue. He
6 has transferred from Seattle, Washington, to
7 Middle Tennessee. And he will be one of our
8 jurisdictional inspectors for Middle Tennessee.
9 And he has moved to the Murfreesboro area, and I
10 wanted to welcome him to Tennessee and the
11 jurisdiction. I think he's going to do a real
12 good job for the citizens of Tennessee.

13 And I wanted to congratulate Chris
14 and Mike, and Carlene in her retirement and
15 Michelle in her job. It's so good to see
16 everybody larger than a seven-inch screen. It's
17 like y'all look different, you know. But I'm glad
18 to be back and so I welcome you-all back.

19 CHAIRMAN MORELOCK: Thank you,
20 Mr. Bowers. Any other announcements?

21 (No verbal response.)

22 CHAIRMAN MORELOCK: All right.
23 Hearing none, that will take us to adoption of the
24 agenda. And one of the things I want to share
25 with you on the agenda -- I'll pull it up here --

1 we do have some revisions that have been submitted
2 by STERIS. Ms. LaFrance sent these in, and I'm
3 going to read these changes to the March 10th
4 minutes. And we will vote these as we vote any
5 other corrections or changes to the minutes here
6 in just a minute.

7 So from the March 10, 2021 minutes,
8 on page 58, line 6, the statement was "meet any
9 steam," and that was corrected to "meet" the
10 acronym "NEC."

11 The next revision to the minutes is
12 on page 58, line 22, where it says "sufficient
13 plans," and that was corrected to read "sufficient
14 clearance."

15 The next change is on page 63,
16 line 15, where it said "vessels aren't," and it
17 was changed to "vessels are."

18 And then the last change is on
19 page 63, line 19, "different links," and that was
20 changed to "different lengths."

21 So I wanted to read those changes.
22 They have been made, and I just wanted to share
23 that with the Board as well as the audience on
24 those changes. And so while we're talking about
25 the March 10 meeting minutes, once we adopt the

1 agenda, we will vote some other changes. So I
2 wanted to put those out on the table.

3 Are there any other changes to the
4 agenda? We'll vote that and then we'll vote the
5 minutes. So any changes?

6 (No verbal response.)

7 CHAIRMAN MORELOCK: So hearing
8 none, do I have a motion to accept the agenda?

9 MR. BAUGHMAN: So moved.

10 MR. HENRY: Second.

11 CHAIRMAN MORELOCK: Okay. I have a
12 motion and a second. Any discussion?

13 (No verbal response.)

14 CHAIRMAN MORELOCK: Okay. Hearing
15 none, I'm going to call for the vote. Those
16 approved say "aye."

17 (Affirmative Response.)

18 CHAIRMAN MORELOCK: Opposed?

19 (No verbal response.)

20 CHAIRMAN MORELOCK: Abstentions,
21 not voting?

22 (No verbal response.)

23 CHAIRMAN MORELOCK: We have an
24 adopted agenda.

25 So now, with that, I want to step

1 back to Item 2 and have some introductions.

2 So Mr. Bowers, if you'll introduce
3 yourself, we'll go around the table.

4 MR. BOWERS: Harold Bowers, board
5 member.

6 DR. HARGROVE: Good morning. Keith
7 Hargrove, board member.

8 CHAIRMAN MORELOCK: Brian Morelock,
9 board member.

10 MR. BAUGHMAN: Dave Baughman, board
11 member.

12 MR. HENRY: Jeff Henry, board
13 member.

14 MS. IRION: Michelle Irion. I'm
15 the admin supervisor and the new secretary.

16 MS. BENNETT: Carlene Bennett,
17 board secretary.

18 MR. RYAN: Mike Ryan, Assistant
19 Chief, boiler unit.

20 CHIEF O'GUIN: Chris O'Guin, Chief
21 Inspector.

22 MR. HERROD: Tom Herrod, Assistant
23 Commissioner for workplace regulations and
24 compliance.

25 MR. BAILEY: Dan Bailey, legal

1 counsel.

2 CHAIRMAN MORELOCK: Cassandra, if
3 you'll introduce yourself.

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

6 CHAIRMAN MORELOCK: Mr. Rehart, if
7 you'll start the visitors.

8 MR. REHART: Mike Rehart, vessel
9 designer for Eastman Chemical Company.

10 MR. HENCHERICK: Philip Hencherick,
11 FM Global, Atlanta Operations.

12 MR. MATUE: Branden Matue,
13 FM Global.

14 MR. LYTLE: David Lytle, Southern
15 Hills Medical Center.

16 MR. NEVILLE: James Neville,
17 Neville Engineering.

18 MS. PARIS: Vivian Paris here on
19 behalf of TASCA.

20 MR. REYNOLDS: I'm Greg Reynolds
21 with A.O. Smith.

22 MR. GREENE: Josh Greene with
23 A.O. Smith.

24 MR. KLEISS: Jeff Kleiss with
25 Lochinvar, on behalf of A.O. Smith.

1 MR. PURI: I'm Chris Puri with
2 Bradley. I represent STERIS.

3 MR. CHIFFON: Mark Chiffon, STERIS
4 Corporation.

5 MR. AVERELL: Dean Averell, STERIS
6 Corporation.

7 MS. LaFRANCE: Marie LaFrance with
8 STERIS Corporation.

9 MS. PRESSON: Jamie Presson,
10 executive admin assistant with WRC.

11 CHAIRMAN MORELOCK: All right.
12 Thank you all.

13 So now we are ready for --

14 MR. BAILEY: Mr. Chairman?

15 CHAIRMAN MORELOCK: Yes?

16 MR. BAILEY: I may have missed
17 this. You went over the revisions and then you
18 had a motion to adopt the agenda.

19 CHAIRMAN MORELOCK: Yes.

20 MR. BAILEY: But I don't think the
21 minutes were ever approved.

22 CHAIRMAN MORELOCK: That's what I'm
23 getting ready to do.

24 MR. BAILEY: Okay. I'm sorry.

25 CHAIRMAN MORELOCK: I got out of

1 order. I apologize for that, Mr. Bailey.

2 So we were back to the minutes. We
3 read the ones from STERIS, so I'm opening up the
4 floor. Are there any other additions/corrections
5 to the March 10th Tennessee Board minutes?

6 (No verbal response.)

7 CHAIRMAN MORELOCK: So I only had
8 one additional, to what I've already read. On
9 page 87, line 8, it states Section 8 with the
10 numeral eight. And since that's ASME code, they
11 use Roman numerals, so that should be Section VIII
12 with a Roman Numeral VIII.

13 What other corrections to the minutes
14 does anybody have?

15 (No verbal response.)

16 CHAIRMAN MORELOCK: Okay. Hearing
17 none, do I have a motion to adopt the March 10th
18 meeting minutes as corrected?

19 MR. BOWERS: I make that motion.

20 CHAIRMAN MORELOCK: Thank you,
21 Mr. Bowers.

22 DR. HARGROVE: Second. Keith
23 Hargrove.

24 CHAIRMAN MORELOCK: Thank you,
25 Mr. Hargrove.

1 Any more comments or discussion?

2 (No verbal response.)

3 CHAIRMAN MORELOCK: Hearing none,
4 I'm going to call the question. All in favor of
5 approving the March 10th meeting minutes say
6 "aye."

7 (Affirmative Response.)

8 CHAIRMAN MORELOCK: Opposed?

9 (No verbal response.)

10 CHAIRMAN MORELOCK: Abstentions,
11 not voting?

12 (No verbal response.)

13 CHAIRMAN MORELOCK: The March 10th
14 meeting minutes are approved.

15 That takes us to Item 5 of the
16 agenda. And we will have the Chief Inspector's --
17 the Boiler Inspector's Report. I'll turn that
18 over to Mr. O'Guin.

19 CHIEF O'GUIN: Thank you, Chairman.

20 For inspections July 1, 2020 through
21 June 14, 2021, the first quarter for the state
22 inspectors is 4,052; insurance is 7,021.

23 The second quarter is 3,146 for
24 State; insurance 6,928, for insurance.

25 Third quarter for State, 4,444; for

1 insurance is 8,427.

2 For the fourth quarter, state
3 inspectors 3,042; insurance is 5,499, granting a
4 total for the State of 14,684 inspections
5 performed this year; insurance is 27,875.

6 Delinquency totals and rates: The
7 State, as of yesterday, was 568 delinquent,
8 0.8 percent. Insurance was 1,005, totaling
9 1.4 percent. Total delinquent is 1,573, which is
10 a 2.2 percent delinquency rate.

11 High-pressure vessels delinquent:
12 For the State we've got 63 delinquent high-
13 pressures, 0.1 percent; insurance is 209
14 delinquent high-pressure vessels which 0.3 percent.
15 Total high-pressure delinquents is 272 or
16 0.4 percent delinquency rate.

17 MR. BOWERS: Chris, I had a
18 question on that. This is Harold Bowers, board
19 member. Delinquencies, is that considered from
20 the actual expiration date due or the grace
21 period? How do they figure delinquency?

22 CHIEF O'GUIN: The delinquency is
23 from the certificate date.

24 MR. BOWERS: Thank you.

25 CHIEF O'GUIN: I'm going to turn it

1 over to Mike Ryan, assistant chief, for the
2 variance report.

3 MR. RYAN: Variances, currently, we
4 have active 75. Inspections performed, 15 have
5 passed in the quarter. The Board has approved 13
6 that are not ready at this time.

7 CHAIRMAN MORELOCK: Okay. Are
8 there any questions of Mr. O'Guin or Mr. Ryan?

9 DR. HARGROVE: Yeah, a question:
10 Just generally speaking, as a result of the
11 pandemic, was the frequency of inspections, did
12 that vary from previous years?

13 CHIEF O'GUIN: Everything stayed
14 where it's pretty well the same. The delinquency
15 rate did jump during COVID. We went to 4 percent
16 probably around August of last year. We are
17 slowly getting back down to normal.

18 DR. HARGROVE: And the availability
19 of inspectors?

20 CHIEF O'GUIN: Yes. During the
21 pandemic, we -- probably for a 10-week span, we
22 had inspectors kind of working more office days,
23 trying to figure everything out. We stayed
24 inspecting most of the -- the majority of the
25 time.

1 Insurance inspectors, I believe
2 60 days might be the time frame last year. They
3 had a work-from-home status which kind of raised
4 our delinquents. But everybody is back working
5 now. We've increased a couple of inspectors over
6 the years which has helped tremendously in the
7 major metropolitan areas.

8 DR. HARGROVE: Thank you very much.

9 CHAIRMAN MORELOCK: Are there any
10 other questions or comments?

11 (No verbal response.)

12 CHAIRMAN MORELOCK: Thank you,
13 gentlemen. That was an excellent report.

14 That takes us to Agenda Item 7, which
15 is Old Business. And we are going to hear a
16 presentation on Item 21-01, TriStar Southern Hills
17 Medical Center. And they are requesting a
18 variance for three high-pressure boilers under the
19 requirements of Chapter 0800-03-03.08(11), which
20 is the 20-minute rule.

21 So gentlemen, if you want to come to
22 the public podium and introduce yourselves. And
23 before you do that, are there any conflicts of
24 interest from the board members?

25 (No verbal response.)

1 CHAIRMAN MORELOCK: Okay. Hearing
2 none, proceed with your presentation.

3 MR. NEVILLE: I'm James Neville
4 with Neville Engineering.

5 MR. LYTLE: And I'm David Lytle
6 with TriStar Southern Hills.

7 MR. NEVILLE: Today we would like
8 to apply for a variance for three high-pressure
9 boilers. We've listed those boilers in the
10 manual.

11 As far as the monitoring of those
12 boilers we would like to monitor those from the
13 PBX office. On page 2 of the manual we show the
14 diagrammed location of the PBX and the location of
15 the boiler room, approximately 386 feet apart.

16 We've listed those boilers in
17 Appendix A. Boiler Number 1 is a Kewanee, Boiler
18 Number 2 is a Cleaver-Brooks, and Boiler 3 is a
19 Cleaver-Brooks.

20 The controls on those are the
21 Honeywell 7800 series, and currently, the expanded
22 annunciator has been ordered for those.

23 MR. LYTLE: And they have arrived
24 and we expect them to be installed by the end of
25 the week. Industrial Boiler will be doing the

1 install.

2 MR. NEVILLE: There was -- as far
3 as the remote station, the PBX operator and
4 security officer will be the individuals
5 monitoring from the remote station. And the
6 boiler attendants for that are classified as a
7 maintenance mechanic and as a security officer.

8 Now, the security officer on third
9 shift will be trained to monitor those boilers.
10 So I had some additional handouts, as far as --
11 the job description contained some wording as far
12 as the third-shift boiler attendant that would be
13 a security officer. So they will trained on site
14 by Industrial Boiler to operate those boilers
15 during that third shift. So that's how the
16 facility will be qualifying those individuals.

17 MR. LYTLE: And I do have that
18 training set up for next Wednesday for the
19 security team. I've got buy-in from our security
20 director.

21 Everybody, you know -- we function as
22 a team. We are a hospital, and everybody is eager
23 to learn and to advance their careers learning
24 about these boilers.

25 MR. NEVILLE: And the other piece

1 of information that was handed out, as far as the
2 power piping and feedwater diagrams, those were
3 pretty small on the original eight-and-a-half by
4 11. The 11 by 17 is a little clearer to read,
5 so...

6 If there's any questions...

7 CHAIRMAN MORELOCK: What -- do I
8 have a motion to discuss?

9 MR. HENRY: So moved.

10 MR. BAUGHMAN: Second.

11 CHAIRMAN MORELOCK: All right.

12 What questions or comments do you have for this
13 proposed variance?

14 MR. HENRY: Mr. Chairman?

15 CHAIRMAN MORELOCK: Yes?

16 MR. HENRY: If I could. This is
17 really more in the nature of a clarification, I
18 guess. If you look on page 6, there's a reference
19 to, in the first item under emergency duties,
20 there's a reference to a boiler controller. And I
21 don't find that defined anywhere else. Is that
22 the boiler attendant?

23 MR. NEVILLE: That's page 6. What
24 is your reference?

25 MR. HENRY: Page 6, the first item

1 under emergency duties, it references the "boiler
2 controller." And I was just -- I'd like to get a
3 clarification; is that the boiler attendant?

4 MR. NEVILLE: Well, the controls on
5 the boiler will shut down --

6 MR. HENRY: Oh, I see.

7 MR. NEVILLE: -- and annunciate at
8 the remote station, so --

9 MR. HENRY: Okay. So this is
10 referring to the equipment.

11 MR. NEVILLE: Yes, that's the
12 equipment. And that's the Honeywell equipment
13 that we show in Appendix B.

14 MR. HENRY: Okay. Well, that leads
15 to my next question, then. If the controller is
16 automatically going to shut the boiler down -- it
17 said that in Number 2 -- the person on duty at the
18 remote station shall shut down the alarming boiler
19 from the remote panel.

20 MR. NEVILLE: That is correct. So
21 on the remote station, there is an alarm panel.
22 And that is the second lockout for that boiler.

23 MR. HENRY: Okay. Well, I
24 apologize for the confusion, but if the controller
25 has already shut the boiler down, then what action

1 is the remote attendant actually taking?

2 MR. NEVILLE: They're preventing
3 that boiler from restarting until the boiler
4 attendant is in the boiler room to restart the
5 boiler.

6 MR. HENRY: Okay. Thank you.

7 CHAIRMAN MORELOCK: What other
8 questions or comments do you have?

9 MR. BAUGHMAN: David Baughman,
10 board member. Glad to see your face again.

11 MR. NEVILLE: Glad to be back.

12 MR. BAUGHMAN: All right. Just a
13 couple of notes.

14 MR. NEVILLE: Yes?

15 MR. BAUGHMAN: First, on page 3
16 under Remote Monitoring System Description, the
17 first sentence just says, "TriStar Southern Hills
18 Medical Center will install a complete
19 microprocessor-based integrated boiler
20 monitoring," and so forth.

21 I would just change the wording on
22 that. "TriStar Southern Hills Medical Center,"
23 maybe, "will be installing."

24 From what I understand, it's not
25 installed as of yet.

1 MR. NEVILLE: That's correct.

2 MR. BAUGHMAN: So I would just make
3 that very simple change.

4 Are there CO alarms installed in the
5 boiler room?

6 MR. LYTLE: Yes.

7 MR. BAUGHMAN: Are they integrated
8 into the monitoring system?

9 MR. LYTLE: Yes.

10 MR. BAUGHMAN: So when the CO alarm
11 annunciates, it'll alarm back to the system
12 itself?

13 MR. LYTLE: Yes.

14 MR. BAUGHMAN: Fantastic. Thank
15 you.

16 How many personnel staff does the
17 remote station have at any time?

18 MR. LYTLE: The remote station
19 location is a minimum of one 24/7/365.

20 MR. BAUGHMAN: My question -- and
21 thank you. The question being is how many
22 personnel are at that remote station at any given
23 time?

24 MR. LYTLE: One.

25 MR. BAUGHMAN: One. Did they have

1 any other duties that would take them away from
2 that remote station?

3 MR. LYTLE: Yes. Potentially.

4 MR. BAUGHMAN: And would they be
5 away from that for any given time that would be --
6 to where they would have to be on the 20-minute
7 rule.

8 MR. LYTLE: No.

9 MR. BAUGHMAN: Okay.

10 MR. LYTLE: No. Everything is
11 isolated. They're, like, in a control room, is
12 kind of their location. They answer the phones.
13 They call codes when a patient needs a code. And
14 her remote annunciator station is right there
15 beside where she sits.

16 MR. BAUGHMAN: Okay. So you've got
17 the PBX station and you've got the remote station.

18 MR. LYTLE: Right. And, you know,
19 she's sitting here (indicating), there's a wall
20 right here (indicating), and that is right there
21 on that wall. So it's within arm's length of any
22 given time from the phone to the computer to the
23 intercom system to -- even the fire alarm
24 annunciator and everything is right there within
25 arm's reach of where she would be sitting.

1 MR. BAUGHMAN: Very good.

2 MR. NEVILLE: On B-4 we do show
3 that alarm panel in the photo.

4 MR. BAUGHMAN: Yes. I appreciate
5 that. That's a very good photo and I appreciate
6 that.

7 Did the e-stops shut down -- in other
8 words, in the boiler room, do you have an e-stop
9 for each boiler? Or does one e-stop --

10 MR. LYTLE: One e-stop does them
11 all.

12 MR. BAUGHMAN: Does them all.

13 MR. LYTLE: And we have an e-stop
14 at every exiting door.

15 MR. BAUGHMAN: So every point of
16 egress --

17 MR. LYTLE: Yes.

18 MR. BAUGHMAN: -- on this expanded
19 drawing --

20 MR. NEVILLE: Yes.

21 MR. BAUGHMAN: Thank you very
22 much -- identifies the boiler e-stops at those
23 points of egress out of the boiler room. I
24 noticed other exits but I couldn't really --

25 MR. NEVILLE: There's an "S" shown

1 at each of the exit doors from the boiler room.

2 So there should be four of them.

3 MR. BAUGHMAN: Four. Very good.

4 MR. NEVILLE: And there are

5 pictures of those --

6 MR. BAUGHMAN: I saw those

7 pictures --

8 MR. NEVILLE: -- e-stops as well.

9 MR. BAUGHMAN: -- which leads me to
10 my next question: Are those doors able to be
11 locked?

12 MR. LYTLE: Yes. It's badge entry
13 to get in.

14 MR. BAUGHMAN: Badge entry to get
15 in there?

16 MR. LYTLE: Yes, sir.

17 MR. BAUGHMAN: Okay. So that badge
18 would be available through any personnel, and in
19 particular, this third-shift security person who
20 you're now also saying will be a boiler attendant
21 on third shift. So all of those have badge
22 entries.

23 MR. LYTLE: (Nods head.)

24 MR. BAUGHMAN: I wonder if anybody
25 ever loses a badge -- that would be a bad thing,

1 but that's always a possibility. Not that I've
2 ever done that.

3 MR. NEVILLE: And we do list that
4 in Appendix B as far the boiler room is key card
5 protected. So that's part of the authorized
6 access protection.

7 MR. BAUGHMAN: Very good. Going
8 to -- I've got it listed as D-1 on the
9 organizational chart. And thank you for letting
10 me jump around, by the way. I appreciate it.
11 That's just the way my notes get taken, so I have
12 to take them in the order that I'm writing them.

13 Under D-1, the organizational chart,
14 under the security section, it shows security
15 manager. And then coming down to security
16 officer/boiler attendant. All the others within
17 their listings except the administrative assistant
18 on the left-hand side have duties, boiler
19 attendant, remote station and so forth.

20 Not that it's a huge issue, but I
21 just didn't see any of the other security officers
22 being listed as remote attendants or boiler
23 attendants.

24 MR. NEVILLE: They do need to be --
25 there is one security officer, mainly the third

1 shift, that will be qualified as boiler
2 attendants, as far as the remote station. The
3 rest of them will be remote-station qualified. So
4 I will need to add "remote station" to the other
5 security officer.

6 MR. BAUGHMAN: Very good.

7 And David, you may answer this for
8 me, but is there a maintenance mechanic on site
9 every shift of every day?

10 MR. LYTLE: With the exception of
11 third.

12 MR. BAUGHMAN: With the exception
13 of third.

14 MR. LYTLE: Yes.

15 MR. BAUGHMAN: So should there be
16 an incident where the security officer is pulled
17 away from his duties as a security officer and
18 he's needing to now be a boiler attendant but
19 there's something else that comes up on site that
20 requires a security officer be present, what's
21 your protocol at that point?

22 MR. LYTLE: We have two security
23 guards there for each shift, so we would have
24 potentially an extra security guard. Not an extra
25 but another guard there that could attend during

1 that time.

2 MR. BAUGHMAN: Very good.

3 Has there ever been a previous
4 variance granted for this facility?

5 MR. LYTLE: No, not to my
6 knowledge.

7 MR. NEVILLE: No.

8 MR. BAUGHMAN: This is the
9 original?

10 MR. NEVILLE: I believe this is the
11 original.

12 MR. BAUGHMAN: So under Appendix A,
13 the last boiler, Number 3 -- let me get to
14 Appendix A. It's on A-1, Boiler Number 3. So
15 Boiler Number 1 and Number 2 identify that these
16 controls that you're putting on, I take it, were
17 upgrading or changing the present controls that
18 are on the boiler, whatever they may be, to the
19 Honeywell. And I take it the two Cleavers are not
20 going to be OEM Cleaver controls; they're going to
21 be standard Honeywell controls.

22 MR. LYTLE: Correct.

23 MR. BAUGHMAN: My question is, and
24 I see under the equipment description, under
25 Appendix C, I see the Honeywell 7800L's but I

1 don't see a 7140L. And I'm not familiar with what
2 that is.

3 I try to keep up with all the newest
4 and greatest things since sliced bread that are in
5 the market but I'm not familiar with that
6 particular control.

7 MR. NEVILLE: We can provide that
8 information. Apparently, it's not in here.

9 MR. BAUGHMAN: I appreciate that,
10 Mr. Neville. If you'll provide that just so we
11 can have it for review. There again, I'm familiar
12 with the other two but not with that one, and I'm
13 kind of interested on why that would be different,
14 or if that's a possibility of a typo.

15 MR. NEVILLE: I believe that is the
16 number off of that individual controller. So I
17 believe I've got a picture of it that I can
18 provide.

19 MR. BAUGHMAN: Very good. The
20 feedwater system is a Lockwood BFS. It shows it
21 being an ATM, being for atmospheric, no pressure
22 ratings. But it would not be delineated as a
23 deaerator, being that it's not a deaerator; it's a
24 boiler feedwater system, just for technical
25 jargon, I would say.

1 The other -- you mentioned that
2 Industrial Boiler has the responsibility of
3 training the personnel both as boiler attendants
4 and, I guess, on this system itself. I would ask
5 what their qualifications are for training.

6 MR. LYTLE: My answer to that
7 question is when I started with HCA five years
8 ago, Industrial Boiler trained me, trained the
9 entire staff when we was at Skyline. I would have
10 to go back to Industrial Boiler and say, hey, you
11 need to give me some sort of documentation showing
12 me that you're capable of conducting this
13 training. That's just the company I've used in my
14 five-year tenure with HCA that has took care of my
15 boilers at each location I've been.

16 MR. BAUGHMAN: Very good.

17 MR. LYTLE: So that would be my
18 answer to that question.

19 MR. BAUGHMAN: Well, that's a --

20 MR. LYTLE: It's an honest answer.

21 MR. BAUGHMAN: -- fair question --
22 a fair answer to a fair question.

23 MR. LYTLE: Yes, sir.

24 MR. BAUGHMAN: We've got a lot of
25 different folks out in the industry, and I just

1 wanted to make sure that you're getting what it is
2 you need and that the public is getting what they
3 need from a safety standpoint and the personnel
4 that are there at the place.

5 The position in -- having a security
6 officer work in the position of a boiler
7 attendant, I've spoke with different personnel
8 that are in that position, and they feel very
9 uncomfortable. They're great at security duties.
10 They're out of their element when it comes to
11 working on a piece of mechanical equipment that
12 has more power than dynamite.

13 MR. LYTLE: Yeah.

14 MR. BAUGHMAN: And so we want to
15 make sure that their training is brought to the
16 highest level possible when they're acting as a
17 boiler attendant. Remote station attendant is
18 totally different than a boiler attendant. So I
19 know none of us take that lightly but that's why
20 the questions.

21 MR. LYTLE: Yes, sir.

22 MR. BAUGHMAN: Thank you very much.

23 CHAIRMAN MORELOCK: Any other
24 questions or comments?

25 DR. HARGROVE: (Indicating.)

1 CHAIRMAN MORELOCK: Dr. Hargrove?

2 DR. HARGROVE: Yes. I do want to
3 comment.

4 Thank you, Mr. Neville, for
5 responding to our previous request.

6 David, you mentioned that this week
7 there will be participants in boiler training.

8 MR. LYTLE: Next week.

9 DR. HARGROVE: How many?

10 MR. LYTLE: Next week. Next
11 Wednesday. And there will be five people in
12 training.

13 DR. HARGROVE: Five individuals?

14 MR. LYTLE: Yes.

15 DR. HARGROVE: And some of them
16 include security guards?

17 MR. LYTLE: Yes.

18 DR. HARGROVE: Thank you.

19 MR. LYTLE: Yes.

20 CHAIRMAN MORELOCK: Any other
21 questions or comments?

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

24 Who is the present boiler inspector
25 at your facility?

1 MR. LYTLE: His name is on the tip
2 of my tongue. He was there last week. I don't
3 remember. I got it in an email but his name slips
4 me right now.

5 MR. BAUGHMAN: I understand how
6 that goes.

7 MR. LYTLE: It's a little different
8 environment so I've got a little nerves involved,
9 and that name does escape me.

10 MR. BAUGHMAN: I'm sorry for the
11 nerves. We try not to make this too hard of an
12 ordeal, but I'm always interested. It's an
13 intimate relationship that everyone should have.
14 And that's why I'm always curious myself. But I
15 wanted to make sure that I ask the question.

16 MR. LYTLE: Okay. Yes, sir. Yes,
17 sir.

18 CHAIRMAN MORELOCK: Any other
19 questions or comments from the board or visitors?

20 MR. LYTLE: Scott Bull.

21 MR. BAUGHMAN: Hartford.

22 DR. HARGROVE: It came to you.

23 MR. LYTLE: It came to me. I knew
24 it was right there, so...

25 CHAIRMAN MORELOCK: All right.

1 Hearing no more questions or comments, do I have a
2 motion for this variance proposal?

3 MR. BAUGHMAN: I would propose the
4 motion that we approve upon the inspection and
5 also would like to have the additional information
6 on this 7140 just for review, if we can email that
7 or whatever --

8 MR. NEVILLE: Yes.

9 MR. BAUGHMAN: -- way we can take a
10 look at that. Or if it's a typo just let us know.

11 MR. NEVILLE: Okay.

12 MR. BAUGHMAN: But I make a motion
13 to approve upon inspection and review.

14 CHAIRMAN MORELOCK: Okay. Do I
15 have a second?

16 DR. HARGROVE: Keith Hargrove.

17 Second.

18 CHAIRMAN MORELOCK: Okay. Last
19 call for comments or questions.

20 (No verbal response.)

21 CHAIRMAN MORELOCK: All right. So
22 we have a motion on the floor for contingent
23 approval of this variance based upon getting some
24 additional information on the Honeywell 7140 and a
25 successful site visit by the boiler unit at your

1 facility. So I'm going to call the question. All
2 in favor say "aye."

3 (Affirmative response.)

4 CHAIRMAN MORELOCK: Opposed?

5 (No verbal response.)

6 CHAIRMAN MORELOCK: Abstentions,
7 not voting?

8 (No verbal response.)

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

11 MR. LYTLE: Thank you, sir.

12 MR. NEVILLE: Thank you.

13 CHAIRMAN MORELOCK: Thank you for
14 your presentation.

15 Okay. That takes us to Item 8, which
16 is New Business. And our first new business item
17 is Item 21-02. Eastman Chemical Company,
18 Kingsport, Tennessee, requests permission to
19 install and operate one centrifuge as a Tennessee
20 Special.

21 Does any of the board members have a
22 conflict?

23 MR. BOWERS: Harold Bowers. I have
24 a conflict.

25 CHAIRMAN MORELOCK: I also have a

1 conflict, Mr. Bailey. So with my conflict, is
2 there any -- what can I not speak to?

3 MR. BAILEY: You can't vote on the
4 approval.

5 CHAIRMAN MORELOCK: Obviously.

6 MR. BAILEY: You can speak on it as
7 long as you don't get into the area of your
8 conflict. Which I don't know if you're going to
9 be able to do that.

10 CHAIRMAN MORELOCK: Okay.

11 MR. BAILEY: And you can't vote.

12 CHAIRMAN MORELOCK: Well, yeah.
13 That goes out without saying. So yeah, I will
14 abstain from the vote. All right.

15 MR. BOWERS: (Indicating.)

16 CHAIRMAN MORELOCK: Mr. Bowers?

17 MR. BOWERS: I have a conflict.

18 CHAIRMAN MORELOCK: Right.

19 MR. BOWERS: Our insurance company
20 insures Eastman Chemical, so we have a conflict.

21 CHAIRMAN MORELOCK: Go ahead and
22 introduce yourself and present your item.

23 MR. REHART: Good morning everyone.
24 I'm Mike Rehart. I'm a vessel designer from
25 Eastman Chemical Company. I appreciate the

1 opportunity to present this request on behalf of
2 Eastman.

3 We have one centrifuge that we
4 acquired from our previously owned Rotterdam site
5 in the Netherlands. This was operated there for
6 about 10 years and then moth balled in storage for
7 about 12 years.

8 When we sold that company, we
9 acquired that equipment and brought it to
10 Kingsport where it sat for a little while. We
11 have the opportunity now to install that and use
12 it to replace an existing centrifuge.

13 From the presentation, you'll see
14 that it is ASME code designed as far as
15 calculations. And I've provided an additional set
16 of calculations for one of the centrifuges that we
17 have in operation -- or had in operation.

18 The thing that keeps it from being
19 ASME code stamped is that it is manufactured from
20 a cast Inconel 625 which is not an ASME code
21 approved material. It is ASTM approved material
22 as is the CX2MW, which our current operating
23 centrifuges are manufactured from.

24 The geometry of the centrifuge in
25 question from Rotterdam is identical. It's

1 manufactured by the same corporation. The
2 castings were from Wollaston Alloys which also
3 casts the centrifuge parts for the ones that we
4 have in operation.

5 The reason for using the Inconel 625
6 for the Rotterdam centrifuge was -- it's been a
7 while ago. I spoke to our materials engineer and
8 believe that it was probably economics and
9 availability.

10 The Dutch code Stone Weissen had no
11 trouble with Inconel 625 as the material of
12 construction so we went with that.

13 When we received it at our shop, we
14 removed it from the crate, disassembled the major
15 components, which there's three major components
16 with a cover on top and a cover on bottom with the
17 inlet and outlet nozzles. We inspected those with
18 dye penetrant and visual inspection.

19 You could visually see some of the
20 original weld repairs in the casting which still
21 looked in perfect condition. Any spots that we
22 found that were questionable, we did -- we
23 repaired those by grinding then dye penetrant
24 again, cleaned up any surface imperfections and
25 dye penetrant those.

1 Inspected all the gasket surfaces,
2 the o-ring surfaces; those looked fine. They were
3 then reassembled and given a hydrostatic pressure
4 test at MAWP, which it passed.

5 The -- looking at the attachments,
6 you'll see that the original drawing, compared to
7 the drawing of the other one that we have from --
8 made from CX2MW, the geometry is identical. The
9 only difference is the material.

10 We also have traceability between our
11 actual parts and the drawing and the calculations
12 by the order number, the 93219. And you can see,
13 also, from the photographs at the back, that D0642
14 is actually cast into the components. And that is
15 also listed on the drawing and on the
16 calculations.

17 So we feel confident that the
18 documentation that we have is actually for that
19 centrifuge.

20 CHAIRMAN MORELOCK: Do I have a
21 motion to discuss?

22 MR. BAUGHMAN: So moved.

23 CHAIRMAN MORELOCK: Thank you.

24 Do I have a second?

25 MR. HENRY: Second.

1 CHAIRMAN MORELOCK: Thank you.

2 What questions does the Board have on
3 this proposal for a Tennessee Special?

4 DR. HARGROVE: Yes. I'll begin.
5 Keith Hargrove.

6 As a result of an inspection, it was
7 revealed that there were spots of surface
8 corrosion.

9 MR. REHART: Yes.

10 DR. HARGROVE: And as a result,
11 there was a weld overlay --

12 MR. REHART: Yes.

13 DR. HARGROVE: -- to certain
14 sections. Do you recall how many sections that
15 was?

16 And then secondly, were any of those
17 sections part of the reinforcement calculations,
18 which I think are very thorough, I may add? But,
19 you know, in making those calculations, were they
20 located in the same place of the welding?

21 And you may or may not know that, but
22 I'm just --

23 MR. REHART: Right off the top of
24 my head, I don't know about the reinforcement
25 areas. I do know that -- I think there were about

1 four areas that were weld repaired, actually
2 ground out and weld repaired back and then dye
3 penetrant tested again.

4 DR. HARGROVE: Second question on
5 page 1-2, a calculation was made for reduction
6 based on different temperatures. Typically, that
7 calculation is done for a minimum and a maximum.
8 And I understand here it was done at 350.

9 And, again, you may or may not know
10 this as well, but were the calculations for this
11 to determine the percent reduction? Was that done
12 or could be done for the minimum and maximum
13 temperature?

14 In other words, you have it for
15 350 degrees where you have a 1.27 percent
16 reduction. Should you also have that for the
17 minimum and maximum temperature?

18 MR. REHART: It could be done. I
19 think the ambient would be the minimum
20 temperature, like 70, 75, room temperature. These
21 are inside in a building that is always hot. So
22 it's never going to be below that. There's no,
23 like, a zero or minus 20.

24 DR. HARGROVE: Okay. That will
25 suffice for now. Thank you.

1 CHAIRMAN MORELOCK: What other
2 questions do you have?

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

5 So I'm assuming, which is a bad thing
6 to do, but I'm assuming that the repairs were
7 accomplished at the facility in Tennessee?

8 MR. REHART: Yes, sir.

9 MR. BAUGHMAN: Looking at page 1.3,
10 I'm showing the hydro test pressure of 150 times
11 1.5 times 1.013 at 228. And on Attachment 9 in
12 the back, I'm showing pressure test details of
13 test pressure on the shell side of 150 psi.

14 I was just interested in what
15 actually it's hydro test pressure was.

16 MR. REHART: The 228 is the
17 original manufacturer's hydrostatic test pressure.
18 And we did our hydrostatic test after repairs at
19 150, which is the radium AWP.

20 MR. BAUGHMAN: Very good. The
21 materials, in what little I know about the
22 materials, of what is utilized, is that actually a
23 stronger material, a less strong --

24 MR. REHART: Stronger. The
25 allowables -- even after the reduction factors,

1 the allowable was slightly better than the CX2MW.

2 MR. BAUGHMAN: Very good. Thank
3 you.

4 CHAIRMAN MORELOCK: Any other
5 questions or comments?

6 MR. HENRY: Mr. Chairman?

7 CHAIRMAN MORELOCK: Yes.

8 MR. HENRY: Just making a quick
9 observation regarding material, the fact that the
10 cast version of 625 doesn't appear in Section 2,
11 Part B in this case or Section 2 Part D is simply
12 the fact that nobody has requested. And it's not
13 any concern about the material.

14 CHAIRMAN MORELOCK: Any other
15 questions or comments?

16 (No verbal response.)

17 CHAIRMAN MORELOCK: Hearing none,
18 do I have a motion for this item?

19 MR. BAUGHMAN: I have a motion that
20 we approve this vessel as a Tennessee special.

21 CHAIRMAN MORELOCK: Do I have a
22 second?

23 MR. HENRY: Second.

24 CHAIRMAN MORELOCK: Any other
25 discussion?

1 (No verbal response.)

2 CHAIRMAN MORELOCK: Hearing none,
3 I'll call the question. All those in favor say
4 "aye."

5 (Affirmative Response.)

6 CHAIRMAN MORELOCK: Opposed?

7 (No verbal response.)

8 CHAIRMAN MORELOCK: Abstentions?

9 I'm abstaining.

10 MR. BOWERS: Abstaining.

11 CHAIRMAN MORELOCK: Mr. Bowers is
12 abstaining. So you do have three positive votes,
13 so this item does pass.

14 So thank you for your presentation.

15 MR. REHART: Thank you. Appreciate
16 it.

17 CHAIRMAN MORELOCK: And just as a
18 point of order that will not have any impact on my
19 conflict of interest, just so we put it on the
20 record, as a Tennessee Special, this vessel will
21 be handled, as far as operation and the repair and
22 alteration requirements per Tennessee Boiler Rule
23 Interpretation BI04-22, which is repair and
24 alterations to Tennessee specials.

25 And I won't read all this, but it

1 boils down to that any repairs to this centrifuge
2 must have the approval of the Chief Inspector from
3 the State of Tennessee. So any repair. And any
4 alteration would have to come back to the
5 Tennessee Board.

6 MR. REHART: Okay.

7 CHAIRMAN MORELOCK: And we meet
8 quarterly, so just note that. Thank you.

9 MR. REHART: Thank you.

10 CHAIRMAN MORELOCK: Okay. So that
11 takes us to our next item of new business which is
12 Item 21-03. STERIS Corporation requests an
13 exemption from the clearance and boiler attendant
14 requirements for AMSCO 600 Steam Sterilizer
15 installations in the state of Tennessee.

16 And as you-all are coming forward,
17 are there any conflicts of interest from the
18 board?

19 (No verbal response.)

20 CHAIRMAN MORELOCK: I see no
21 conflicts so you may proceed with your
22 presentation.

23 MS. LaFRANCE: Good morning. My
24 name is Marie LaFrance. I'm from STERIS
25 Corporation. I am the senior product manager for

1 steam sterilization. I've been there for 28 years
2 in that role.

3 Today, I've brought with me Mark
4 Chiffon who is our director of R & D. We've been
5 making sterilizers for 125 years, and Mark has
6 been with us for 34 of those years developing all
7 kinds of steam sterilizers and vaporous hydrogen
8 peroxide sterilizers as well.

9 And I also have a field service
10 expert, Dean Averell, with us today. Dean has
11 supported AMSCO 600 steam sterilizers in the field
12 quite extensively, and so he can answer a lot --
13 any service questions that we have today.

14 Dean has been around for a long time,
15 too, 30 years, so he has a lot of experience to
16 bring as well.

17 So today we are requesting, as we did at
18 the March 10th board meeting, that STERIS have a
19 blanket variance for the AMSCO 600 steam
20 sterilizer from the Tennessee side and rear
21 clearance requirements stated in Rule
22 0800-3-3-.04(13)(a) based on the fact that the
23 AMSCO 600 has been properly designed to provide
24 front-only access to all components and sufficient
25 clearance for normal operation maintenance and

1 inspection per the NBIC Section 4.3.2.

2 In the way of items to discuss today,
3 we'd like to review some of the items that were
4 bought up at the last meeting on March 10th of
5 2021. You may have received a list of those
6 items.

7 What we did is we went through the
8 transcript from the meeting, the March 10th
9 meeting. We identified about 13 items; about 5 of
10 those were design items. We'd like to go over
11 those first.

12 We have some computer models and some
13 photos to show you on those and then go over the
14 remaining items that the Board commented on.

15 We would like to briefly discuss
16 healthcare facility impact, product safety
17 features. And if we have time, we'll show you
18 some photos of what our competition is doing.
19 They have a very similar product to ours. And
20 then some concluding remarks.

21 But before we get started on all that,
22 we would like to have a few words from Kelly
23 Norman who is a member of the Board of TAASC, the
24 Tennessee Association for Ambulatory Surgery
25 Centers. And she would like to have some customer

1 perspective for the meeting.

2 We're going to have her on the phone.
3 She's working today. She's about two-and-a-half
4 hours away at the Advanced Family Surgery Center.
5 She's part of the Covenant Health System, I
6 believe. And she's going to have a few remarks
7 before we get started on the main body of the
8 presentation.

9 Kelly, are you around? Are you on line?

10 MS. NORMAN (telephonically): Yes.

11 MS. LaFRANCE: Okay. Please, if
12 you could, give us a summary of the letter that
13 you've actually written to the Board.

14 MS. NORMAN (telephonically): Yes.
15 I submitted my letter yesterday. And what I would
16 like -- (indiscernible) -- the change in our
17 history like anyone else's. (Indiscernible) --
18 for allowing --

19 THE REPORTER: I can't get her.

20 MS. LaFRANCE: Kelly, we're having
21 a little problem hearing you.

22 MS. NORMAN (telephonically): I'm
23 sorry. Can you hear me now?

24 MS. LaFRANCE: Yes.

25 MS. NORMAN (telephonically): All

1 right. I apologize for that.

2 CMS is allowing surgery centers to
3 perform more cases in outpatient centers, which is
4 allowing us more complex cases such as total hips,
5 total knees.

6 And this allows us to do more complex
7 cases to allow patients to go home. We also have
8 decreased the infection rate for our patients and
9 exposure while staying in the hospital.

10 But to do these more complex cases,
11 it takes more instrumentation. And in the letter
12 where I've written "total joint," especially the
13 knee, it takes 11 surgical trays. And the process
14 that we have now, is just being allowed to process
15 more of -- (indiscernible).

16 We have three sterilizers that will
17 allow us to do more. And this sterilizer would
18 allow for sterilization. We have three
19 sterilizers, so it allows us to do two per tray.
20 And as you can see, we need 11 trays.

21 And the AMSCO 600 would definitely
22 allow us to accommodate our surgeons and their
23 patients much better without limitation.

24 And you can see more in our letter,
25 but I just wanted to reach out to you and thank

1 you all today for allowing us this opportunity to
2 present that our industry is trying to do patient
3 care along with safety. It is very important to
4 our industry and that our industry is growing and
5 changing, and this instrumentation would help us
6 tremendously.

7 MS. LaFRANCE: Thanks very much,
8 Kelly. I appreciate your words.

9 I think what Kelly was saying is, you
10 know, with the explosion in total joint surgeries,
11 you know, we can actually get an entire load of --
12 a case load of instruments in the AMSCO 600 all at
13 once versus her using three sterilizers to get
14 that same quantity through.

15 And this helps her to avoid putting
16 on a second shift, so it decreases her costs and
17 decreases all the necessary steps, the indicators
18 that we have to put in on all those loads, the
19 necessary prep time for those additional loads.
20 So it does help in that way as well.

21 Thank you very much, Kelly, for your
22 help today.

23 MS. NORMAN (telephonically): Thank
24 you.

25 CHAIRMAN MORELOCK: On behalf of

1 the Board, thank you for your presentation.

2 MS. LaFRANCE: Okay. So we'll
3 proceed with the rest of the presentation. Like I
4 said, we'll go over the design items first.

5 The first item that was from our
6 meeting was that we needed to improve the
7 generator plate visibility. On the left, you can
8 see a computer model of our generator. The vessel
9 is in the back. The power box is in the front.
10 And that green label that you see on the right
11 there, that is the current location of the
12 generator pressure vessel data plate. The issue
13 was that we needed to make that more visible.

14 We also have a duplicate plate that's
15 on top of the power box. You can see that on the
16 right-hand side. It has all the same data that
17 the green label has. The green label is required
18 by code to be on the pressure vessel. So that's
19 why it's located there. It was the best place to
20 put it at the time.

21 But taking your input that it needed
22 to be more visible, what we've done is redesigned
23 the location for the generator plate. You can see
24 that it is going to be welded to the top of the
25 vessel using a bracket.

1 CHAIRMAN MORELOCK: Can I
2 interrupt?

3 MS. LaFRANCE: Yes, certainly.

4 CHAIRMAN MORELOCK: Can the board
5 members ask questions as you go through this?

6 MS. LaFRANCE: Yes.

7 CHAIRMAN MORELOCK: Mr. Baughman,
8 did you have a question at the previous slide or
9 this slide?

10 MR. BAUGHMAN: Well, we'll go
11 through this slide, and then stop for a moment for
12 some questions, if you don't mind.

13 MS. LaFRANCE: That sounds good.

14 So, as I said, we've relocated the
15 plate onto the top so that it would be more
16 visible. And I just went into our CSC, our
17 customer solutions center, and took a picture.
18 And what I did was I just placed the tag from the
19 safety valve on top of where that label will be,
20 you know, kind of like a facsimile of where the
21 label will be so you can see it better.

22 Any questions?

23 MR. BAUGHMAN: So -- this is Dave
24 Baughman, board member.

25 So that first slide that we had

1 back -- that one, so that's presently, data plate
2 current location on the generator pressure vessel.

3 As I'm looking at the picture on the
4 left and then orienting it to the one on the right
5 where it says "current duplicate plate," I'm
6 showing an electrical control panel on the left
7 picture, but I'm trying to orient to the right
8 picture. Because the one on the right, the sight
9 glass is on the left. I don't quite see the
10 proper orientation, if you'll explain that to me.

11 MR. AVERELL: Sure. This is where
12 it's on the pressure vessel and it has to be on
13 there by code. It has to be right on the vessel.
14 It can't be somewhere else.

15 So what you're -- the way this
16 picture is drawn, this cycle that's here is
17 actually over here (indicating). It's just that
18 they did the CAD drawing and they rotated it so we
19 could see where the tag is.

20 And on this picture, this is the
21 bracket for the door channel for the door to go up
22 and down. So to see it, you would have to look in
23 here.

24 And we realized it when we made it,
25 we're like, this isn't visible; we have to put it

1 up here. But we took your feedback and said
2 that's fine. But this is a cover so it could get
3 misplaced, something could happen, damaged, so
4 that's why we're going to put it on that plate
5 that's shown in the next one.

6 MR. BAUGHMAN: Next question would
7 be -- back to that first slide or even that slide
8 there, either one. But the panel, the electrical
9 panel, where is it located on the boiler itself?

10 MR. AVERELL: This right here, this
11 box here?

12 MR. BAUGHMAN: Yes, sir. Where is
13 it located on the picture on the right?

14 MR. AVERELL: This box.

15 MS. LaFRANCE: The cover is off.

16 MR. AVERELL: We took the cover
17 off. The cover is off.

18 MR. BAUGHMAN: The cover off. So
19 it's actually on the side of the unit, or are we
20 looking at --

21 MR. AVERELL: No. You're looking
22 at it straight on, front.

23 MR. BAUGHMAN: We're looking at it
24 straight on.

25 MR. AVERELL: Yeah.

1 MS. LaFRANCE: Yes.

2 MR. AVERELL: The one panel that
3 you would remove with two key locks, the panel
4 comes off, and this has a panel on it, and that's
5 this panel here.

6 MR. BAUGHMAN: Very good. Thank
7 you.

8 MS. LaFRANCE: Everything is
9 designed to be accessible from the front.

10 MR. BAUGHMAN: So this is a design
11 change that we're looking to do. The unit that we
12 looked at the other day at the facility that we
13 went to is not necessarily what it's going to be;
14 is that correct?

15 MR. AVERELL: Right.

16 MS. LaFRANCE: Correct.

17 MR. AVERELL: That's the design
18 cage on the next slide where Marie put the --

19 MR. BAUGHMAN: Okay. So this is a
20 proposed change.

21 MR. AVERELL: This is where we're
22 proposing the change.

23 MS. LaFRANCE: We are in the
24 process of changing this now.

25 MR. BAUGHMAN: Process of changing

1 it.

2 MS. LaFRANCE: Yes.

3 MR. BAUGHMAN: Who actually
4 manufactures the boiler?

5 MR. AVERELL: We do.

6 MR. BAUGHMAN: STERIS does.

7 MR. CHIFFON: STERIS does.

8 MR. AVERELL: Uh-huh.

9 MR. BAUGHMAN: Interesting. We'll
10 address that in another question later to that.

11 MS. LaFRANCE: Okay.

12 MR. BAUGHMAN: Same thing with the
13 unfired section, STERIS is the manufacturer?

14 MR. AVERELL: Yes.

15 MS. LaFRANCE: Yes.

16 MR. BAUGHMAN: Very good. Thank
17 you.

18 MS. LaFRANCE: Yes. We've been
19 making sterilizers 125 years, so...

20 MR. BAUGHMAN: And I figured that
21 as a package. I wasn't quite sure with the vessel
22 itself, so that's why I asked that.

23 MS. LaFRANCE: Yeah. This
24 equipment can be -- the sterilizer can run on
25 house steam or it can run with the generator.

1 There's two different configurations -- two
2 different steam supplies.

3 MR. BAUGHMAN: Yes, ma'am. Thank
4 you.

5 MS. LaFRANCE: So moving on to
6 Item 2 and Items 5 and 6, which was on the list
7 that I submitted earlier, the need to be able to
8 clean and drain the sight glass per ASME pressure
9 code 60.1.6. So the solution was to add a valve
10 which will be operable from the front of the
11 sterilizer. You can see that I've labeled where
12 we have that valve on the computer model below.

13 On Items 5 and 6, we needed to have a
14 generator pressure gauge shutoff per section
15 60.6.1. And we needed the ability to check the
16 accuracy of the generator pressure gauge.

17 So if you recall, we used to have the
18 gauge, the generator pressure gauge and the sight
19 glass gauge kind of connected, and the generator
20 pressure gauge was oriented horizontally versus
21 vertically, so we've separated those two out and
22 we have valves on each -- well, a valve and a
23 drain on each one that we can access from the
24 front.

25 CHAIRMAN MORELOCK: So just a

1 comment. Your ASME PG 60.1.6, that would be ASME
2 Section I PG .1.6?

3 MS. LaFRANCE: It's a different
4 section.

5 CHAIRMAN MORELOCK: That's for a
6 boiler.

7 MR. CHIFFON: It's Section I.

8 MR. BAUGHMAN: I would like to make
9 a comment also. So being that STERIS has been
10 manufacturing these for years, they know that it's
11 supposed to be manufactured to ASME Code, but yet
12 it didn't quite meet the code requirements, so
13 we're going back and changing those.

14 We found this by a site visit, and
15 that's where we made the comment. So in making
16 these changes, we're going to put a drain valve on
17 the bottom of the sight glass to be able to
18 measure it. And that's the present location of
19 where the steam gauge was at.

20 So we're now taking the steam gauge
21 off of where the drain would go, putting that on.
22 But do we actually have a separate test port to
23 check the accuracy of the pressure gauge? I've
24 got "add valve, isolate the pressure gauge --"

25 MR. AVERELL: Right here. This is

1 a T fitting, so we have a calibrated instrument.
2 All the technicians have them and they're
3 calibrated by a third party for us every year.
4 And they can tie it in right here and test it.

5 MR. BAUGHMAN: So will that be just
6 a plug that they take out and then have to screw
7 a --

8 MR. AVERELL: Yeah.

9 MR. BAUGHMAN: -- siphon loop in --

10 MR. AVERELL: Uh-huh.

11 MR. BAUGHMAN: -- or will there --
12 suggested being a valve at that location that they
13 can just put their gauge on without having to take
14 a plug out --

15 MR. AVERELL: Well, this valve will
16 be here so it'll shut it off so you can -- so if
17 for some reason the gauge was ineffective/broken/
18 not reading, you're able to shut that off, take
19 the gauge out and replace it. And this is also a
20 test port on the bottom of it.

21 MR. BAUGHMAN: Very good. Do you
22 have a siphon loop on that? I don't see one on
23 your drawing.

24 MR. AVERELL: No. It'd be local,
25 carried by the technicians.

1 MR. BAUGHMAN: But for the
2 operating gauge itself that's on there presently,
3 I don't see a siphon loop to where you're
4 pushing --

5 MR. AVERELL: Right.

6 MR. BAUGHMAN: -- water against the
7 gauge instead of --

8 MR. AVERELL: I understand what
9 you're saying.

10 MR. BAUGHMAN: So I would suggest
11 that that be added as well.

12 MR. AVERELL: Okay. That's fine.
13 We'll put that right on there. That's not a
14 problem. I'm sure the first one out in the field,
15 the technician, would have been, where's the
16 siphon loop, so...

17 MR. BAUGHMAN: Well, it gives --

18 MR. AVERELL: It helps.

19 MR. BAUGHMAN: It makes a
20 difference for the accuracy of the gauge --

21 MR. AVERELL: It saves the gauge
22 from getting the pounding. So yes.

23 MR. BAUGHMAN: Absolutely. Thank
24 you for that.

25 MS. LaFRANCE: Any other questions?

1 MR. BAUGHMAN: Not for this. Thank
2 you.

3 MS. LaFRANCE: Okay.

4 MR. BAUGHMAN: I do. I'm sorry.

5 MS. LaFRANCE: Yes?

6 MR. BAUGHMAN: If I don't ask it
7 while I'm thinking about it, it will go right out
8 the door.

9 MS. LaFRANCE: Okay.

10 MR. BAUGHMAN: The steam header
11 valve coming off of this, what type of valve is
12 that? It looks like a ball valve at the top.

13 MR. AVERELL: Actually, what you're
14 seeing, that ball valve there, that's the
15 feedwater in.

16 MR. BAUGHMAN: Okay.

17 MR. AVERELL: Because it comes --
18 the feedwater comes into this pump here.

19 MR. BAUGHMAN: Very good. Where is
20 our steam outlet valve then?

21 MR. AVERELL: I don't think it's
22 visible on this picture.

23 MR. BAUGHMAN: Okay. As we come up
24 to a picture, I would like you to identify it.

25 MR. AVERELL: Sure. Okay.

1 MR. BAUGHMAN: Thank you.

2 MS. LaFRANCE: So Items 8 and 9
3 were that the safety valve discharge piping needs
4 to be longer and needs to be supported. We found
5 this in the NBIC inspection guide, is where we
6 located this requirement.

7 The solution here is to lengthen the
8 safety valve discharge piping and to secure the
9 piping, both top and bottom, with brackets that
10 are attached to the sterilizers. As you can see,
11 the model is labeled.

12 On the right you see a different view
13 from the front of the sterilizer, and we made the
14 length of the pipes such that they can be -- that
15 the bottom of them can be seen.

16 The reason they were being made the
17 length that they originally were is because
18 depending on which state we go into, we either
19 have to just, you know, leave the pipes as they
20 are or we -- sometimes we need to connect them to
21 the drain down underneath the sterilizer, or
22 sometimes it's required that we vent them out
23 upward of the sterilizer.

24 So that was kind of a middle-ground
25 position for those pipes to be so that we could

1 meet the requirements of various installations in
2 states.

3 MR. BAUGHMAN: I would like to
4 address a question, please.

5 MS. LaFRANCE: Yes.

6 MR. BAUGHMAN: So ASME, under
7 pressure relief valve piping states, "Pressure
8 relief valve piping within the scope of this code
9 shall be supported to sustain reaction forces and
10 shall conform to the following requirements," and
11 so forth and so on.

12 "When discharging directly to the
13 atmosphere, discharge shall not impinge on other
14 piping or equipment and shall be directed away
15 from platforms and other areas used by personnel."

16 So the gist of that is safe point of
17 discharge. And being that this is a high-pressure
18 boiler, would we consider where it's discharging
19 to be a safe point of discharge?

20 I have my own opinions, being that
21 I've been around relief valves when they have
22 discharged. But I would like to know STERIS'S
23 opinion.

24 MS. LaFRANCE: Would you like to
25 comment?

1 MR. CHIFFON: Well, these are
2 located within the back of the machine and they're
3 away from where anybody would be operating the
4 unit or using or servicing the unit. So they are
5 directed back and towards the bottom of the
6 system.

7 MR. BAUGHMAN: I would contradict
8 that answer offhand, respectfully, that the unit
9 that we went and looked at on-site the other day
10 had access from the rear because we've got the air
11 compressor in that room.

12 The units themselves were into an
13 area that you did have access back into. And I
14 would imagine that that is the case with a lot of
15 these facilities; they still have accessibility in
16 the room behind it for other equipment -- water
17 treatment, the softeners, the RO systems, whatever
18 may be -- can be located in the room behind it
19 where there could be other personnel. And that
20 was the case where we were in particular that one
21 day.

22 So there is the possibility of that
23 being within the area of other personnel at the
24 time, just through our own observation. And I
25 think that as you guys know where these

1 installations are at and you know that there's
2 facilities that there is going to be accessibility
3 behind the unit itself, so I would still hold to
4 that statement that that would not be considered a
5 safe point of discharge.

6 Going up and out to the atmosphere,
7 yes. If it goes up and out, you're required to
8 have a drip pan out or some means to be about to
9 get rid of the condensate and so forth.

10 But my own opinion is my opinion
11 because it is safe point of discharge, which is
12 somewhat interpretive, but understand the legal
13 implications of if a relief valve discharges by a
14 piece of equipment that you've manufactured, that
15 you assume those liabilities that go along with
16 that.

17 MR. AVERELL: Understood. Thank
18 you.

19 MS. LaFRANCE: Any other comments
20 on this?

21 (No verbal response.)

22 MS. LaFRANCE: Okay. I just wanted
23 to show what this looks like from photographs. I
24 actually took these photos in our RCSC from the
25 front of the unit.

1 It took me about 10 seconds to take
2 off the top panel of the sterilizer. And I wanted
3 to show that, you know, it's visible. I actually
4 shot this with my cell phone. I just held my cell
5 phone above, from the front of the machine, and
6 took these photos so you can actually see the
7 entire length of the piping. You can see the
8 bottom of the piping.

9 And to the right, I also took a quick
10 picture of the generator exhaust piping. You can
11 see the generator underneath there. It's wrapped
12 in insulation, in the metal foil.

13 MR. BAUGHMAN: Again, this is Dave
14 Baughman.

15 MS. LaFRANCE: Yes.

16 MR. BAUGHMAN: Going back to that
17 picture, that is not going to be indicative of
18 what you're looking to or to keep manufacturing a
19 status quo, being that that relief valve piping
20 discharge is not supported, you're talking about
21 bracketing it.

22 MS. LaFRANCE: Correct.

23 MR. BAUGHMAN: But bracketing it
24 and supporting the weight are two different
25 entities. And that relief valve discharge piping,

1 the weight of that piping, albeit lowered with
2 copper, the discharge piping itself must be
3 supported, not just bracketed, to keep anything
4 from straining.

5 So from what I see, those are
6 brackets on the side which are lacking -- as long
7 as those brackets -- to me, a bracket keeps
8 anything from moving laterally, but it doesn't
9 give pipe support.

10 So if those brackets were from a
11 support standpoint, i.e., attached to that pipe to
12 give support, then that would be one thing. But
13 if it's just there to keep the pipe from moving
14 laterally, then something else would need to be
15 addressed.

16 And on that next picture, you're
17 showing the discharge piping from above, looking
18 down. And, of course, the brackets aren't there,
19 but the piping is not supported either.

20 MR. AVERELL: Yeah. And this is in
21 our customer service center. So the -- what we're
22 proposing, I just took a note that it's not just
23 bracket. We should maybe change that to support.

24 MR. CHIFFON: Well, the brackets
25 will support.

1 MR. AVERELL: Okay.

2 MR. CHIFFON: They will be attached
3 to the piping. It won't just stop the piping from
4 moving; it will physically retain.

5 MR. AVERELL: Okay. great.

6 MR. BAUGHMAN: Very good. Thank
7 you again.

8 MS. LaFRANCE: So Item Number 3 was
9 that we needed to have writing on the sight glass
10 to indicate that it's heavy-wall glass.

11 We did go back to our supply of sight
12 glasses and we noted that it is printed with Duran
13 heavy-wall gauge glass.

14 We understand that you probably
15 didn't see the writing out in the field. Our
16 engineer kind of rubbed on that printing, and it
17 can come off. We can't etch the glass because it
18 makes it weak, and it's very -- you know, this is
19 the most delicate part of the sterilizer.

20 So it is provided with the paperwork
21 that you see underneath so that we can tell that
22 it's heavy-gauged -- heavy-wall glass.

23 MR. BAUGHMAN: Going back one
24 picture, before we get to the glass, I know we
25 just went past the -- or maybe the relief valve is

1 coming forward. I know we just briefly saw a
2 picture of the relief valve tag and I was
3 interested in looking at that.

4 MS. LaFRANCE: Oh, okay. Yes.

5 MR. BAUGHMAN: And it may be past
6 the glass. I don't know.

7 MS. LaFRANCE: Yeah, it is past it.

8 MR. BAUGHMAN: Okay. So we'll
9 address the glass. Very good. We'll go back to
10 the glass.

11 MS. LaFRANCE: Okay.

12 MR. BAUGHMAN: So when we were at
13 the facility the other day, we looked at the
14 glass. I've got examples of heavy-wall, both what
15 does not have the writing on it, which we
16 witnessed at the site, versus what is on the glass
17 itself. And on a glass, I believe this unit
18 itself has a six-inch glass?

19 MR. AVERELL: Yes.

20 MR. BAUGHMAN: Okay. So within
21 that six inches, there's going to be quite a bit
22 of writing that's on there. But it's got Duran.
23 It's got the gauge glass serial number and so
24 forth. We use broad examples. But what was on
25 there was a clear glass.

1 And when we looked at this particular
2 facility, one item stood out was that with the
3 clear glass, we couldn't tell if the unit was
4 empty or full. I was hoping it was full, which it
5 was, but the sight-glass valves were closed. And
6 that will lead into some other things that we're
7 going to talk about within your checks of the
8 water level and so forth.

9 Being that you can't see the water
10 level in this boiler without disassembling or
11 taking the front of the unit to have access to the
12 boiler itself -- in other words, it's behind the
13 panel of the sterilizer. So you have no idea.

14 Somebody physically either closed the
15 sight-glass valves, which also at that time made
16 the steam gauge no longer operable because it was
17 attached to the bottom of the sight-glass valves.

18 But we noted that, for one, it's a
19 clear glass. Nothing mandates that you've got to
20 have a red line, although the red line gives you a
21 better indication, especially from a distance, to
22 be able to see what the water level is.

23 But the glass itself -- and I
24 understand that in the paperwork that I saw, the
25 documentation was there as far as what we supply

1 and what comes with the unit itself.

2 Those are purchasing documentations.
3 I believe that letter stated that that was back in
4 March or some point that that was produced. But
5 we've seen that before, that what's supplied and
6 bought and what actually gets put on can be two
7 different things. That goes back to quality
8 control and making sure that what goes on the unit
9 is proper.

10 A sight glass is one item that the
11 pressure inside of that sight glass is the same as
12 what's in the boiler. And so it's critical that
13 all these components match up. And so all I had
14 to go by with this comment through the previous
15 meeting and in the minutes was that the unit
16 itself did not have the writing. Although you
17 can, you know, physically -- but it takes quite a
18 bit to take the writing off of one of these
19 particular sight glass.

20 So I had multiple issues concerning
21 the sight glass at that particular installation.
22 Where you're moving forward, I think is great.
23 But we definitely had some concerns and that's why
24 the mention was in the previous minutes and how
25 you addressed it there.

1 But there again, it's one of the
2 things that you don't want to beat it too hard,
3 but that sight glass is one thing that can cause
4 injury, and it's an item that should be checked
5 during the operation of the unit itself. And we
6 don't have the availability to do it the way it's
7 constructed presently, so...

8 MR. BOWERS: Harold Bowers.

9 You know, in defense of STERIS, you
10 know, all they do is manufacture it and sell it.
11 As far as the operation of the STERIS unit, that's
12 up to the vendor -- I mean up to the buyer to make
13 sure that the sight glass is right and the valves
14 are open like they're supposed to be. So I just
15 want to make that comment.

16 But in Dave's defense, yes, the sight
17 glass needs to be where it can be looked at and
18 the gauge checked.

19 MR. BAUGHMAN: I looked for a code
20 reference under Section 1, Power Boilers, to see
21 what the reference was for being able to look at
22 the water level of the boiler. As it states in
23 the present, I think we're looking at it once
24 every four -- four times a year?

25 MR. AVERELL: Yes. And whenever

1 there's a service call, that's part of the
2 inspection. It's not just, oh, this was leaking;
3 I fixed it. It's to run the cycles, do test
4 cycles on the unit to check the overall operation,
5 leaks, all that kind of stuff every time there is
6 a service call on it.

7 MR. BAUGHMAN: And those service
8 calls are basically, again, four times a year, or
9 there's -- there's specific service that --

10 MR. AVERELL: That's the
11 preventative maintenance checklist that we have
12 that we go through four times a year. But if
13 there's a service call -- if the customer says,
14 "My door doesn't go up or down," or any other
15 issue that they have with the unit, then the whole
16 unit is checked over.

17 MR. BAUGHMAN: Got you. But that
18 may not happen, or it may happen once a year. You
19 may have one service call, two service calls,
20 multiples, or you may not have any.

21 And so my concern is, is that we're
22 operating a high-pressure power boiler without the
23 ability to check the water level in the unit
24 itself without disassembling the front of the
25 unit.

1 And again, I haven't looked at the
2 code reference. I've got brothers in the industry
3 that have the codes available. But if I'm not
4 mistaken, there's a code reference to being able
5 to verify visually what the water level is in the
6 boiler itself without having to disassemble the
7 unit.

8 MS. LaFRANCE: Well, you really
9 don't have to disassemble the unit. All you have
10 to do is take off the front panel. It lifts right
11 off. I took it off to take those pictures by
12 myself, and then I put it back on. So it's easy
13 to remove, but the sight glass is right in front
14 where you can see it. We purposefully put it
15 there so that it would be easy to view.

16 MR. BAUGHMAN: I understand. Thank
17 you.

18 MS. LaFRANCE: Any other questions
19 on the sight glass?

20 MR. HENCHERICK: Phil Hencherick,
21 FM Global.

22 I've seen other small steam
23 generators. Sometimes they cut an access port on
24 the casing so you can see the sight glass. You do
25 see that in the field.

1 I've seen your units before,
2 stainless steel cabinets, enclosed. And I'm just
3 saying I've seen other applications for steamers
4 where they'll sit there and they'll have a little
5 access port cut so you can see the sight glass.

6 MS. LaFRANCE: Thank you.

7 For Item 4, we had, "The safety valve
8 set value and capacity data are difficult to
9 read."

10 We get the safety valves from the
11 supplier this way. It's my understanding that
12 it's required that the information is embossed on
13 the label. And again, I took these pictures with
14 my cell phone on Monday, so I think, you know, the
15 information is pretty clear in these photos. We
16 have both the sterilizer, the jacket, and the
17 generator valve labels there.

18 CHIEF O'GUIN: I have a question.

19 MS. LaFRANCE: Yes?

20 CHIEF O'GUIN: Chris O'Guin, Chief
21 Inspector.

22 Were these pictures taken from the
23 front of the unit --

24 MS. LaFRANCE: Yes.

25 CHIEF O'GUIN: -- with front

1 inspection access only?

2 MS. LaFRANCE: I did it myself. I
3 went in Monday night and I took the panel off the
4 front of the sterilizer and I just shot these with
5 my cell phone. So the visual aids really help.

6 MR. BAUGHMAN: I've got a question.

7 MS. LaFRANCE: Yes.

8 MR. BAUGHMAN: Again, Dave
9 Baughman.

10 And I know we addressed this and it
11 was talked about in the minutes, but you're
12 showing a cap in the weep discharge, which is not
13 allowed. And so I wanted to make sure that we
14 address this.

15 And I know that even yourself had
16 said, "Yeah, I've never really seen this before."
17 But I wanted to make sure that it was part of the
18 quality control that that particular cap -- and
19 after our meeting, I went back and looked in our
20 inventory to see if we had any. There weren't.

21 And so I inquired back to Conbraco,
22 the manufacturer of your relief valves, to ask if
23 they supply any kind of aperture in the weep hole
24 and they said no. So being that, that had to come
25 from somewhere for some reason.

1 And that's also a point of discharge
2 that when that relief valve should discharge, you
3 can get discharge out of that weep hole. So I
4 wanted to know, moving forward, how you're going
5 to attend to that weep hole in both its piping of
6 it, because it's got to be, also, to a safe point
7 of discharge.

8 MS. LaFRANCE: Well, I don't think
9 we see these in the field.

10 MR. AVERELL: Yeah. I'm surprised
11 that there's that red cap in there, because I've
12 put on safety valves a lot and have never had it.
13 If it was there, maybe it's for shipping or
14 something like that, but I don't know.

15 Maybe we can put something in our
16 instructions to make sure to remove the red cap to
17 have that installed there. Because I don't --
18 just when I looked up there, I was, like, the ones
19 on the left, I'm like, no, that's part of the
20 safety relief part of it. And I'm like, oh, yeah,
21 I see the red cap now. And I'm like, why is that
22 there. So yeah, I don't -- I don't know. I don't
23 have that answer, and I've just got a -- took a
24 note, "red cap."

25 MS. LaFRANCE: This is a proto-type

1 machine, too. This is the very first one. And we
2 often use these machines in our visitor center
3 because, you know, quite frankly, the customer
4 doesn't really care about the piping the way --

5 MR. BAUGHMAN: Well, the customer
6 doesn't know what they don't know.

7 MS. LaFRANCE: Right.

8 MR. BAUGHMAN: We're here charged
9 with safety.

10 MS. LaFRANCE: Yes.

11 MR. BAUGHMAN: And that's why this
12 is before the Board. We're looking at pictures of
13 a prototype --

14 MS. LaFRANCE: Right.

15 MR. BAUGHMAN: -- and being asked
16 to give a blanket exemption on prototype pictures
17 and --

18 MS. LaFRANCE: Right.

19 MR. BAUGHMAN: -- things that we're
20 looking at changing and having develop. And
21 that's why we're going through this process. But
22 I still need to know how that would be attended
23 to, where that safe point of discharge is at,
24 what's the test procedure.

25 In the manual, in going through the

1 maintenance manual, I was looking for the test
2 procedure of how you test the relief valves.

3 MR. AVERELL: We don't. We replace
4 them every year.

5 MR. BAUGHMAN: You replace them
6 every year?

7 MR. AVERELL: Because we have found
8 that sometimes if you test them, they don't
9 properly reseal. Rather than get into that
10 situation, it's just in our maintenance procedure
11 to replace them every single year.

12 MR. BAUGHMAN: Very good. So you
13 have the serial numbers recorded to know when that
14 date of manufacture or date -- it's within your --

15 MR. AVERELL: Yeah. It's part of
16 the sterilizer. When the sterilizer is due for
17 the inspection, every year it comes up there are
18 certain steps that have to be taken, and one of
19 them is to replace the safety valve.

20 So we have the issue, especially with
21 the ones on the little mini generator that we have
22 underneath the units. It's like if you pull this
23 and it releases, then I'm going to replace it. So
24 we just said we're just going to replace them
25 every year.

1 MR. BAUGHMAN: Well, that's great.
2 We found that most people don't know how to test
3 the relief valve. And it's lack of training and
4 education within the marketplace as far as to know
5 the proper procedure and what pressure you can
6 relieve them at and so forth.

7 MR. AVERELL: Okay. So yeah, we
8 were, like -- we don't want to get into that, so
9 part of it, when we're doing the boiler
10 inspections every year with the technicians, it's
11 just we have the unit shut off either the night
12 before so it's cool, then we do our inspection and
13 our work on it, and then we just replace the
14 safety valve and fire everything back up and then
15 run test cycles.

16 MR. BAUGHMAN: Very good. The
17 safety valve on the very right-hand side, there at
18 about the, oh, 8:00 to 9:00 position maybe, at the
19 bottom. Right on down a little bit on the valve
20 itself, right up to your -- up, over to the left.
21 Right there. Nope. Right there. That little
22 scarring.

23 MR. AVERELL: Casting mark?

24 MR. BAUGHMAN: Casting mark. Okay.
25 Well, and so --

1 MR. AVERELL: Without actually
2 seeing the actual valve itself, that's what I
3 would say.

4 MR. BAUGHMAN: Okay. So that leads
5 to my question on the training for service
6 personnel and so forth is, are they trained to
7 know where they can put a wrench on a relief
8 valve? Because there is one place and one place
9 only that they're allowed to put a wrench.

10 MR. AVERELL: On the landing.

11 MR. BAUGHMAN: Yes, sir, on the
12 flat surfaces. So if, in fact, that was a wrench
13 mark, pipe valve and so forth --

14 MR. AVERELL: We have other
15 questions for our technicians to ask, why are you
16 using the improper tool on them?

17 MR. BAUGHMAN: Yes. Very good.
18 Thank you.

19 MR. AVERELL: Thank you.

20 CHAIRMAN MORELOCK: Yeah. That was
21 a question I had that you've answered, is I agree
22 we can see the nameplate just fine, but I don't
23 see the tag where it was either pressure-tested or
24 repaired and sealed. And so you answered that
25 question by if you're going to replace the valve

1 and not --

2 MR. AVERELL: Or even if they're
3 out there for a regular inspection or just even a
4 service call or something else and they see it
5 weeping out of the weep hole, replace it. We
6 don't even -- we don't want to mess around. You
7 know, because invariably it will happen on a
8 Saturday when no one is around, so we just replace
9 it.

10 MR. BAUGHMAN: Being that this is
11 on the front of the unit and you said you pulled
12 the front off and you got in with your cell phone,
13 was this unit in operation or was it static when
14 you looked at it?

15 MS. LaFRANCE: It's static.

16 MR. BAUGHMAN: Static. So my
17 question being is that these units would go
18 through possible inspection during operation.

19 What kind of temperatures, what -- in
20 other words what I'm looking at is the burn
21 factor. If somebody has got to stick their arm in
22 to take a cell phone picture and it comes out
23 blurry, they come back, delete it, put it back in,
24 comes back --

25 This whole process of going back and

1 forth, and I'm thinking of brother Harold and our
2 new inspector coming in with FM, of being able to
3 have accessibility to reading this without having
4 to take an aperture such as a cell phone camera
5 and taking a picture of it, does that meet the
6 letter of the code of what we're looking at?

7 And I don't know. I ask the question
8 because presently -- and I don't know how our code
9 is worded. And so I defer that, but my question
10 being is I know that if I was somebody, even a
11 serviceman going in and wanting to see the data
12 and I've left my cell phone in the car -- there's
13 certain places that we don't bring our cell phones
14 into -- I don't want to have to rely on my cell
15 phone to go in and try to take a picture to give
16 you that information personally.

17 MR. BOWERS: This is Harold Bowers,
18 board member.

19 I've probably got more burns on
20 sterilizers in the last 20 years than anything
21 else. But we do use mirrors and we use
22 selfie-sticks, you know, to get to those
23 hard-to-get-to places. That's part of the trade.
24 You just learn how to do it. And you get burned,
25 you know.

1 But the sterilizers, you're in a
2 close, confined space and you're around a lot of
3 hot pipes and you get burned a few times and you
4 learn. You know, it's like, oh, you go a little
5 easier next time and say, hey, I'm going to buy
6 that selfie-stick. That selfie-stick works a lot
7 better. It's just part of the trade as to how you
8 do it.

9 MR. AVERELL: And we also have
10 our -- our technicians all have burn sleeves that
11 they go from the middle of the hand up and over
12 the elbow. So invariably you'll get burned right
13 where the shirt is and the sleeve stops. But
14 that's -- you do have -- we do have burn sleeves.
15 All the technicians have them and they're full
16 length, so they can reach in and -- just that
17 momentary right there and take the picture of it.
18 So that's part of their basic PPE equipment, is to
19 have burn sleeves with the gloves and safety
20 glasses.

21 MR. BAUGHMAN: So would, therefore,
22 then the inspector, just to keep the inspectors
23 from being burned -- you know, we all don't like
24 to say things that we shouldn't when we get burned
25 or shocked. But would it be appropriate, then, at

1 the time that we need this looked at, to alleviate
2 any possibility of burns, of being able to ask any
3 personnel on site to look at it for us?

4 MR. AVERELL: Yeah. I mean, in
5 many different states, some states, the inspector
6 will say, "Hey, I'm showing up Tuesday to look at
7 this account," and we make our technicians -- and
8 they show up and work together.

9 In some states, I've had people just
10 say, "Oh, yeah. We looked at the boiler for you."

11 I'm like, "When were you there?" So
12 yeah. And if you want to use some of our burn
13 equipment, I've given burn sleeves to some of our
14 installers and said, "Here. Use these. Do not
15 get burnt."

16 MR. BAUGHMAN: Very good. That
17 makes sense. Thank you.

18 CHIEF O'GUIN: Chris O'Guin, Chief
19 Inspector.

20 We do not schedule an external
21 inspection on high-pressure boilers. We go in
22 unannounced. That way we can do all the control
23 checks. With that, you know, if there's an issue,
24 you know, we're going to find it instead of
25 somebody getting there before us and fixing these

1 issues. We can tell how they're being attended to
2 on a normal basis that way.

3 And I had one question. The relief
4 piping on this, can I see it from a front-only
5 access? Not from a side picture. I mean, front
6 access only.

7 MS. LaFRANCE: Yes. I took a
8 picture of it from the front.

9 MR. CHIFFON: All these were from
10 front access.

11 CHIEF O'GUIN: Okay. That's what I
12 was wondering. Thank you.

13 MS. LaFRANCE: Yes. And I want to
14 add, too, that I actually zoomed in. I didn't get
15 too close to these. So I zoomed in and then
16 inserted these photos. So I didn't get too close,
17 to take the pictures.

18 MR. BAUGHMAN: Do you have a photo
19 that's back, not up close but actually back from
20 the unit that would show the panel off and where
21 the location of those valves are?

22 MS. LaFRANCE: Not in this
23 particular presentation, but I can supply you with
24 one.

25 MR. BAUGHMAN: I would be

1 interested in that.

2 MS. LaFRANCE: Okay.

3 MR. BOWERS: You actually showed
4 one from your front view.

5 MR. AVERELL: Beginning with the
6 generator panel?

7 MR. BOWERS: Yes.

8 MR. AVERELL: That would at least
9 show that.

10 MS. LaFRANCE: Shall I go back?

11 MR. BOWERS: Yes. It showed where
12 the safety valves are at. It's on the right side
13 and -- I noticed when me and Chris had gone out
14 there, it was pretty tight to get the cell phone
15 in there. It was a little tight. But it's on the
16 right side, and you can --

17 MR. AVERELL: There's a picture.
18 So as you can see, this is the actual sterilizer,
19 and this is the access they would have. So this
20 panel is the one that would come off. It's got
21 two little locks. It pulls off here.

22 So the control box, the sight glass,
23 the safety valve is back there. As you can see,
24 we have the access here. But this is for the
25 relief valve for the generator.

1 MR. BAUGHMAN: Where is the relief
2 valve for the unfired vessel?

3 MR. AVERELL: Up top. It's another
4 panel up top.

5 MR. BAUGHMAN: Very good.

6 MR. AVERELL: I don't know that we
7 have a picture of that.

8 MS. LaFRANCE: You can kind of see
9 it in this computer model where the relief valves
10 are attached to the exhaust piping. We can
11 provide a photo of that as well.

12 So moving on to Item 7, that we need
13 to match the units on safety valves to the
14 pressure vessel capacity units. Currently, the
15 sterilizer vessel is kilopascals, and the safety
16 valve is in psig.

17 We researched this question and it
18 has quite an interesting story behind it and a
19 logical explanation. We actually are a worldwide
20 supplier of sterilizers, and we have a factory in
21 Europe, in Finland, that builds the AMSCO 600 for
22 that market.

23 We initially released this chamber
24 and door design in Europe. And in Europe, they
25 like kilopascals. They did all the analysis in

1 kilopascals. And then when we designed -- when we
2 did the design transfer to our North American
3 plant, all those calculations came over in
4 kilopascals, and our authorized inspector in our
5 North American plant said, "You must have the
6 label match what the calculations are done in,"
7 and that was kilopascals.

8 In Europe, they favor steam to steam
9 generators. And in the U.S., electric generators.
10 So we actually developed an electric generator
11 over here in North America. And, of course, we
12 like psig in North America, so the generator was
13 labeled in psig.

14 So there is a logical explanation for
15 why it is the way it is, but we realized that it's
16 not convenient to do the conversion in the field
17 from kilopascals to psig, and we're going to
18 actually change the way our calculations are
19 reported so we can label everything in psig.

20 MR. BAUGHMAN: So presently, is
21 your manufacturer's data report showing both
22 present day, the design of the vessel itself in
23 kilopascals and any of your externals under your
24 P-7 or on your addendum for the relief valve
25 showing in psig? And is there ever a time when

1 it's kilopascals on the relief valve and -- and
2 what I'm getting at is I just don't know where the
3 inconsistencies are at.

4 I like the direction that you're
5 heading where it will all be in U.S. designations
6 instead of the metrics. But when is that going to
7 take place?

8 MS. LaFRANCE: As we speak, it is
9 being changed.

10 MR. CHIFFON: They're updating the
11 analysis right now, so...

12 The analysis of the unfired vessel
13 will now be done in psig, and then the data plate
14 for that will be in psig. And then that will
15 align with the relief valves on the chamber that
16 are in psig. And they will remain in psig.

17 MR. BAUGHMAN: Does all of your
18 manufacturing of these vessels come from the
19 States, North America -- I say "the States," but
20 you mentioned North America.

21 MS. LaFRANCE: Yes.

22 MR. BAUGHMAN: We don't bring
23 anything in from overseas?

24 MS. LaFRANCE: We do not.
25 Everything is done in North America.

1 MR. BAUGHMAN: Very good. Where in
2 North America?

3 MS. LaFRANCE: In Monterey.

4 MR. BAUGHMAN: Very good. Thank
5 you.

6 CHAIRMAN MORELOCK: So the email we
7 received, it made a statement that there wasn't
8 clear code guidance on unit of measure. And so
9 just for the record, it's in the NBIC. It's also
10 in Part HG102 for Section 1. It's also on PG-4 on
11 Section 4. And it's U-4 for ASME Section VIII
12 Division 1.

13 And all of them basically say a
14 single system unit shall be used for all aspects
15 of the design. And, of course, there's always an
16 exception, but what you're doing here will satisfy
17 that.

18 MS. LaFRANCE: Right.

19 CHAIRMAN MORELOCK: So thank you
20 very much for clarifying that.

21 MS. LaFRANCE: Well, thanks for
22 bringing it to our attention.

23 Any other questions on this item?

24 (No verbal response.)

25 MS. LaFRANCE: For Item Number 10,

1 the inspection interval for steam gauge and water
2 level in the operator manual is one time per year.
3 Our reference to the code showed, from NBIC 370,
4 that power boilers and high-pressure/
5 high-temperature water boilers, one annual
6 internal and external inspection.

7 And Dean already alluded to some of
8 these facts, that we actually check the generator
9 four times a year and more if we happen to be in
10 the account. And that's what's currently stated
11 in our interval-based checklist, four times per
12 year for all the items that you see listed on the
13 page here.

14 Any questions?

15 MR. BAUGHMAN: Yes. The unit that
16 we looked at, Mr. O'Guin and Mr. Bowers, do you
17 remember what the age of that unit was, how long
18 it had been there?

19 CHIEF O'GUIN: It was newly
20 installed, within a 60-day time frame.

21 MR. BAUGHMAN: Newly installed. So
22 it would have gone through a start-up by STERIS, I
23 would assume, at that time.

24 So I still come back to the water
25 level being that those gauge valves were in the

1 closed position. And so that's somewhat of my
2 concern. Not to hammer on the water level, but
3 it's so critical to this process that I think it's
4 worthy of further review and investigation by
5 STERIS to come up with a protocol on how to check
6 water level.

7 MS. LaFRANCE: Right.

8 MR. BAUGHMAN: Our brother from FM
9 made note of a hole in the panel to be able to
10 view the water level and whatever the situation
11 may be. But as it stands now, one time a year for
12 service intervals or what have you, I think we all
13 concur that that's lacking.

14 MS. LaFRANCE: Correct.

15 MR. BAUGHMAN: At any rate, that
16 was just a comment.

17 MS. LaFRANCE: Yeah. And we also
18 have the float within the generator, the float
19 sensor. It's a stainless generator and it has a
20 sensor which, you know, transmits a signal to the
21 control which will tell us --

22 MR. AVERELL: If it gets over-
23 filled, it shuts off the pump. Because if it
24 didn't shut off the pump, it would just keep
25 filling with water and then there would be water

1 off the safety valves.

2 MR. BAUGHMAN: I'm a little
3 confused because you mentioned float.

4 MR. AVERELL: There is a -- inside
5 the generator -- well, you've seen the sight
6 glass, and this is part of -- when we started
7 building our own generators, we used to get them
8 from PROPYLUX. And the way they had their floats
9 and probes for water level and heater turn on and
10 off and overflow and under -- under water -- or
11 I'm sorry -- a low-water level. But they had
12 those different -- their sight glass would show it
13 at half full; whereas, when we put ours in, the
14 way we position the float, the sight glass is a
15 lot fuller. So you would have that unit -- it has
16 a shutoff that tells us when to turn the heater
17 on, and if there is a condition where the water
18 level is too high, it will also shut off.

19 MR. BAUGHMAN: Is this an internal
20 float?

21 MR. AVERELL: It's a float that you
22 can replace. It's replaceable.

23 MR. BAUGHMAN: But my question
24 being, is it an internal float?

25 MR. AVERELL: Yes. Inside the

1 chamber of the -- the steam chamber of the
2 generator, yes.

3 MR. BAUGHMAN: Interesting.

4 MS. LaFRANCE: My point is it's
5 redundant. It's another method of measuring the
6 level of the water.

7 MR. BAUGHMAN: Okay. So redundant
8 being you've got a float and you've got -- what's
9 the other?

10 MS. LaFRANCE: A sight glass.

11 MR. AVERELL: The visual sight
12 glass and then the float is the electronic control
13 or the electric control of turning on the
14 feedwater pump or turning off -- turning on the
15 heaters. Or if there's a low-water situation, it
16 shuts off the heaters and the pump, or it will
17 turn off the pump also when it's overfilled.

18 MR. BAUGHMAN: So the sight glass
19 is not a means of controlling the water.

20 MR. AVERELL: No.

21 MS. LaFRANCE: No.

22 MR. BAUGHMAN: It's a means of
23 looking at it.

24 MR. AVERELL: It's a visual --

25 MR. BAUGHMAN: You said it's a

1 redundant means of control, but it's not. It's
2 just a visual representation of what's in the
3 boiler itself. So all we've got is a float that's
4 internal to the unit itself.

5 MR. AVERELL: And then if any of
6 the conditions that aren't met, then the unit
7 alarms and shuts off the power.

8 MR. BAUGHMAN: Thank you.

9 MR. BOWERS: This is Harold Bowers.
10 I have a question.

11 MS. LaFRANCE: Yes?

12 MR. BOWERS: Is there any level
13 indicator or pressure indicator on the controls on
14 the front of the boiler as far as if you have a
15 low-water condition, it shuts the boiler off?

16 MR. AVERELL: Are you looking for
17 like if there's a light?

18 MR. BOWERS: If there's a light --

19 MR. AVERELL: No. The control --
20 it has a water level control board in there, so
21 when the float senses the water is too low, say
22 the water supply, whatever, there's an
23 interruption of water supply, when it's too low,
24 the pump would run for a certain amount of time
25 and then shut off.

1 MR. BOWERS: But there would be an
2 alarm?

3 MR. AVERELL: Yeah. It would be an
4 alarm on the actual control of the sterilizer.
5 The basic alarm that would show up is too long to
6 charge a jacket. So that's the indication that
7 your steam supply, there's an issue with it.

8 MR. BOWERS: So it wouldn't tell
9 you exactly; it's just a low-water indicator.

10 MR. AVERELL: There is an alarm.
11 We have a series of alarms for the generator, too.
12 It's a big list of alarms that the generator will
13 go and give off, too, that we use for --

14 MR. BOWERS: Would that be an
15 indicator for high pressure on the panel?

16 MR. AVERELL: No.

17 MR. BOWERS: Okay.

18 MR. AVERELL: But just the alarm
19 would be, like, you know, low water or -- then you
20 would have the visual indication. As soon as you
21 get the alarm of anything like that that's a
22 safety issue, then you would stop. You can't use
23 it anymore. The end user could not use it.

24 Even if they cleared the alarm, they
25 could not use it. Or if they were somehow able to

1 get into our supervisor mode or something like
2 that, the alarm would reoccur and stop it again.

3 MR. BOWERS: Thank you.

4 MS. LaFRANCE: Okay. So moving on
5 to Item 11: No manufacturer's data report for the
6 particular vessel itself was available.

7 I think we kind of addressed this at
8 the last meeting in that we said that all the
9 documents get shipped with the sterilizer in a
10 binder and they're given to the customer. So if
11 we need to have that documentation, all we have to
12 normally do is ask the supervisor of the
13 department for it, and they should have it on
14 hand.

15 CHAIRMAN MORELOCK: So quick
16 question: Are these units registered with the
17 National Board?

18 MR. AVERELL: They all have
19 National -- the generators have National Board
20 numbers.

21 CHAIRMAN MORELOCK: Okay. So if
22 they've got National Board numbers, then the
23 National Board has that documentation.

24 MR. AVERELL: Yeah. Occasionally,
25 we'll have people who buy from the facility

1 closest down if they don't have it. They bought
2 this generator and they're, like, can you give us
3 the paperwork.

4 CHAIRMAN MORELOCK: So your
5 response on that would be if all your units are
6 registered with the National Board, then the
7 owner/user, inspection agency, repair agency
8 should contact the National Board and get that
9 data report.

10 MR. AVERELL: Generally, they
11 contact us because our name is on the front of the
12 unit. But yeah, we get -- we've taken many
13 requests to find that information for people.

14 CHAIRMAN MORELOCK: Okay. Thank
15 you.

16 MR. AVERELL: Absolutely.

17 MR. BAUGHMAN: I'll comment to
18 that, because on page 28 of the minutes from
19 the -- excuse me. It's referred to on page 28,
20 the reference in this meeting, but it's actually
21 on page 29. It was addressed through
22 Mr. Andrusky.

23 "Those documents are shipped with the
24 equipment and given to the customer. I don't know
25 in that case whether we inquired from the customer

1 of whether they're available or not. STERIS
2 doesn't keep them."

3 And so even though STERIS is the
4 manufacturer of the units, as you state, you're
5 not keeping the manufacturer's data reports?

6 MR. CHIFFON: That doesn't sound
7 right.

8 MS. LaFRANCE: I think what he was
9 saying is we don't keep the documents that are
10 sent with the sterilizer. We give them to the
11 customer. That's what Roger was referring to.

12 CHAIRMAN MORELOCK: You do have
13 records --

14 MR. CHIFFON: We would have records
15 of that.

16 MS. LaFRANCE: We have a device
17 history record in the factory that has everything
18 about every device that we've ever shipped.

19 MR. BAUGHMAN: And I appreciate
20 that, because that's -- that's why I was going
21 back through and --

22 MS. LaFRANCE: No. We definitely
23 have records but we give the customer a copy.

24 MR. BAUGHMAN: Very good. Well, in
25 the way the minutes read through the court

1 reporting, which does a fantastic job, "STERIS
2 doesn't keep them" was highlighted in my notes,
3 so --

4 MR. AVERELL: Oh yeah, we have
5 them.

6 MR. BAUGHMAN: -- I wanted to
7 clarify that.

8 MR. AVERELL: Yeah.

9 MR. BAUGHMAN: So for the record,
10 STERIS does keep them.

11 MR. AVERELL: We do keep the
12 records and we do provide a copy of the record to
13 the customer.

14 MR. BAUGHMAN: Very good. And
15 being National Board, they registered there with
16 the National Board also, both not only on the
17 generator but the unfired vessel is also National
18 Board registered?

19 MR. CHIFFON: Yes.

20 MR. BAUGHMAN: Very good. Thank
21 you.

22 MS. LaFRANCE: Any other questions
23 on Number 11?

24 (No verbal response.)

25 MS. LaFRANCE: Okay. For Item 12

1 we had the right side of the generator vessel is
2 not visible for inspection for leaks.

3 This is a stainless vessel. This is
4 kind of new for us in the United States. We've
5 seen increased demand for clean steam versus --
6 which uses RODI water as the feedwater.

7 Clean steam helps customers keep
8 their chambers cleaner. You know, we see
9 degradation of water quality all over the United
10 States, so we're seeing an increased demand for
11 our clean steam in Europe. They use clean steam
12 almost exclusively.

13 So we are now beginning to supply
14 sterilizers with stainless generators versus the
15 carbon steel that we used to. You know, those
16 would corrode. The stainless generator is not
17 going to corrode like the carbon steel would.

18 And as you can see from the right, we
19 can see the right side of the generator. It is
20 covered with insulation as is our chamber itself.
21 It's covered with insulation.

22 So I think that any indication for
23 leaks, I don't -- Dean, maybe you can comment on
24 how we find leaks in our system in the field.

25 MR. AVERELL: Generally, if there's

1 a leak, I would have to say most of the time, it's
2 coming from the sight glass. It's the sight glass
3 or it's some of the piping that's almost
4 exclusively on the left-hand side in the center
5 where that tape-measure technician person is
6 there.

7 On the right side, the only thing
8 there is the safety valve. It's discharged and
9 you only should be able to see -- it's kind of
10 hard because it's dark in this picture. But the
11 only other things are all visible on the top of
12 the generator like the feedwater line. There's
13 nothing purposefully -- we don't put anything over
14 here because of that.

15 Now, if there was a leak discovered
16 and the technician could not figure out where it
17 was from, yes, then we're pulling the generator.

18 And that's what we ended up doing on
19 the ones that you guys went out and the sight
20 valves were shut off and everything like that; we
21 said, you know, let's not even mess around with
22 this. Let's replace these generators. And that's
23 what we did. We replaced those generators on
24 those units. We're just, like, not even going to
25 screw around. Let's just replace them. Whether

1 they were leaking or not, it doesn't matter.

2 Let's replace them.

3 MR. BAUGHMAN: So you replaced the
4 sight glass valve, not the generator itself.

5 MR. AVERELL: No. The whole
6 generator.

7 MR. BAUGHMAN: You replaced the
8 whole generator?

9 MR. AVERELL: Yes. Everything that
10 is with the generator, the piping, the electrical,
11 sight glasses, the vacuum pump -- or, I mean, the
12 feedwater pump, everything, just pulled it out.

13 MR. BAUGHMAN: On that new one that
14 we went out and looked at?

15 MR. AVERELL: Yes. That's the one.
16 Yep. That was the resolution, because we --

17 MR. BAUGHMAN: Interesting.

18 MR. AVERELL: We just decided that
19 it's -- it would be better because it's a new
20 customer. You guys had pointed out these things.
21 There was some discussion about where the leak was
22 or wasn't, so we're like, let's not even screw
23 around. And that's the way STERIS does things.
24 We just take it out.

25 MR. BAUGHMAN: Would that not have

1 to -- and I defer this to Mr. O'Guin. Would that
2 not then need an application for installation to
3 be approved?

4 CHIEF O'GUIN: Yes, sir.

5 MR. BAUGHMAN: Okay. And just for
6 the protocol of that within the State of
7 Tennessee, when you're replacing the unit, I
8 understand that that was the easiest and most --
9 and really, from a customer satisfaction
10 standpoint of saying hey, we're taking care of
11 this for you, but the protocol is there to go --

12 MR. AVERELL: And I don't know that
13 we do that, honestly. I don't know that we needed
14 to ask -- you know, say hey, we're replacing this
15 generator, what's the steps. Because we deal with
16 15 different states, and sometimes we've been
17 caught off guard as to what all the rules are.

18 So that's why we're here, is because
19 we want to make this right for you guys so that we
20 can have experience when we talk to people
21 elsewhere as to what it can be.

22 And we're -- we've actually had --
23 started to have people now that their job is,
24 like, if you're going to make this, you better
25 check all the codes in all the states.

1 MR. BAUGHMAN: Well, and that's
2 what we should do as manufacturer/suppliers.
3 We're charged with doing that. It's our
4 responsibility not to do it on the back end but on
5 the front end.

6 MR. AVERELL: Yep.

7 MR. BAUGHMAN: So one of the things
8 with clean steam, and I've seen this on sterilizer
9 units, is that the unit can be stainless and then
10 it's piped in in carbon steel. And then you have
11 the issues of still not having clean steam because
12 of the acid that's formed and the degradation of
13 the piping and the iron and so forth, getting back
14 to the unit itself, as far as the -- where the
15 utensils are being sterilized at. I see that in a
16 lot of installations.

17 MR. AVERELL: And we're finding now
18 that a lot of these surgery centers are not used
19 to providing this clean water. So we're also
20 helping them understand that you don't just put in
21 the water system and hey, we're all done. You
22 have to have somebody service it and take care of
23 it. So we're working to educate our customers to
24 help them help us so the equipment will last. If
25 you're using good quality water and stainless on

1 the unit, it's going to last a lot longer and be
2 more reliable.

3 MR. BAUGHMAN: Well, the unit does.
4 The piping external of the unit is where there's
5 issues that come up if that is carbon steel going
6 from the sterilizer out, because you're not
7 treating to offset the acid that's formed, and you
8 still have issues along the way external of the
9 sterilizer itself. So we just find a lot of
10 issues within the industry.

11 But, I guess, part of what I look at
12 is when there's a leak, of being able to identify
13 a leak -- and I know I'm speaking with some of my
14 colleagues -- there's been some conflict in, is
15 this condensation, is this a leak, being able to
16 take the insulation off to identify if there's a
17 leak in the pressure vessel itself and so forth.

18 And so that's something just as we
19 move forward, is looking at the accessibility to
20 identify where a leak is at.

21 I know we've mentioned sight glass is
22 the most prevalent area of a leak. And those have
23 unit end washers typically that come with them
24 which have a rating of about 185 F.

25 So that's a constant tightening

1 process on the sight glass valves. But that's
2 kind of minor compared to if we've got a vessel
3 leak itself.

4 Where these electrodes go within the
5 unit itself, is there a flange gasket? I take it
6 there's a flange. So that's an area that's a
7 possible leakage also.

8 MR. AVERELL: And that's why we
9 inspect them four times a year. To do it once a
10 year is good, but, I mean, we want to be safe. We
11 want the equipment to be up and useable for the
12 customer. That's why four times a year, to us, is
13 where we set our inspection standard.

14 Now, if we notice that somebody --
15 and this is just outside of these units. If
16 someone has a carbon steel generator and they have
17 really horrible water, then maybe we do
18 inspections six times a year, that kind of thing.
19 It does get site specific at times.

20 CHAIRMAN MORELOCK: Let me break in
21 here for just a minute. It's basically 10 after
22 11:00. We've been going for over two hours. The
23 court reporter needs a break. I know everybody
24 else needs a break.

25 I need to talk to STERIS and

1 A.O. Smith because we will have to adjourn this
2 meeting no later than 1:30, and I want to make
3 sure I give everybody a fair time to present their
4 items. And I will do everything possible to make
5 that happen between now and 1:30.

6 But let's take a ten-minute break and
7 we'll reconvene at 11:20, and we'll see what our
8 path forward is.

9 (Recess observed.)

10 CHAIRMAN MORELOCK: We'll give the
11 floor back to STERIS so they can wrap up their
12 presentation.

13 MS. LaFRANCE: Okay. Thank you
14 very much. Our last item is Item Number 13: How
15 is the unit blown down and how are the operating
16 pressure, high-pressure limit, and the back-up for
17 it and any low-water cutoff apertures, how are
18 they accomplished?

19 And I'm going to let Dean speak to
20 this because he's much more familiar with this
21 aspect.

22 MR. AVERELL: So, of course, code
23 is you can't put anything over 140 down the drain,
24 so they're not done at high pressure. To do any
25 of the work on the unit, the unit is shut off,

1 it's cooled down, and then they're able to do work
2 on it.

3 Now, if the customer wants to do a
4 flush on it, we do have built into the unit an
5 automatic flush-and-drain system. There's
6 temperature and pressure devices on the generator
7 so that in the control, the unit shuts off, and
8 when it reaches below 140 and below 5 pounds of
9 pressure in the generator, it will flush.
10 Usually, that's done overnight.

11 It's more for those accounts that
12 have carbon steel generators. They are -- we are
13 putting them on the stainless steel generators
14 because, as we know, clean water isn't always
15 clean. So there's always going to be some bit of
16 particulars in there. So those are --

17 At this point, the new units that are
18 coming out, the customer has to actually deselect
19 the flush-and-drain option. It's not even a
20 choice anymore. And we're working with other
21 customers to retrofit the other ones so that they
22 have flush-and-drain kits.

23 As far as test procedures, we are
24 developing -- most of it is the high and low
25 pressure switches. The technician will put an

1 electronic meter on the switch, watch the gauge as
2 it goes up. When it trips, they'll be able to
3 visually tell and also with the calibrated
4 instrument to see what pressure it's tripping out
5 at or set at so they can adjust it.

6 A lot of it is done just by operation
7 of the sterilizer or the generator. You can see
8 when it -- on the gauge when it comes up to
9 70 pounds, the two heaters cut out and the
10 residual latent heat drifts it up to 80.

11 Now, there's a high-pressure switch
12 on it also that will cut it out if for some reason
13 the generator just started to overheat or there
14 was something wrong and it reached a pressure of
15 100 pounds. Not only would the safety relief
16 valve blow off and scare the hell out of everyone,
17 it would also cut the power off to the generator.

18 MR. BAUGHMAN: Yes. I would like
19 to address a question or two.

20 MR. AVERELL: Sure. I would expect
21 nothing less, sir.

22 MR. BAUGHMAN: Is the -- when the
23 high limit -- if the high limit is actuated, if
24 the operator doesn't shut it off, I take it it's
25 got the back-up high limit. If the high limit

1 trips, does that go into a manual reset mode, or
2 is that automatically reset?

3 MR. AVERELL: Manual reset.

4 MR. BAUGHMAN: And where is that,
5 on the switch itself or is that --

6 MR. AVERELL: On that switch
7 itself, it says "manual reset" and it has a white
8 button. You would have to pull the panel off.
9 The unit would go into an alarm. You couldn't use
10 the unit anymore.

11 In addition, with that safety relief
12 valve going off, we would get a call. There's no
13 doubt about that.

14 MR. BAUGHMAN: Sure. So the high
15 limit should be set at least below where the
16 relief valve set point would be.

17 MR. AVERELL: Yes. It's set at --
18 I believe it's set at 90.

19 MR. BAUGHMAN: Very good. The
20 low-water cutoff, does it actuate a manual reset?

21 MR. AVERELL: If the low water --
22 if the water level drops below, what happens is
23 that it will look for a certain time, in the
24 software, of how long, because maybe there's just
25 a slight -- there's not just a pressure but a flow

1 of water that's not being met.

2 And if it doesn't reach it in a
3 certain fill time for the generator to fill, then
4 it will cut off and there would be an alarm.

5 MR. BAUGHMAN: Okay. But --

6 MR. AVERELL: It will say too long
7 to fill generator or something along that line.

8 MR. BAUGHMAN: Sure. But there is
9 no actual -- other than the alarm, there is no
10 manual reset of a low-water relay or aperture
11 itself.

12 MR. AVERELL: No. No.

13 MR. BAUGHMAN: Okay. You mentioned
14 the -- on the flush and drain, that there's an
15 option that you can disable that; is that correct?
16 Did I hear that right? You can deselect the flush
17 and drain --

18 MR. AVERELL: Oh, that's when the
19 customer orders the equipment. When they have an
20 order for it, we used to have a point where you
21 can select flush and drain. Now we say no, you
22 have to deselect it. Otherwise, you're getting
23 it.

24 MR. BAUGHMAN: Okay.

25 MR. AVERELL: Because we realized

1 that if it's important enough for this -- if it's
2 clean water or regular water, these generators
3 have to be flushed so that it's an actual option
4 when they're buying the generator --

5 MR. BAUGHMAN: So -- and I'm sorry.
6 I didn't mean to step on you there. So we do have
7 the option, though, of deselecting that to where
8 they won't necessarily get the automatic
9 flush-and-drain feature, correct?

10 MR. AVERELL: That's correct.
11 That's a customer's choice. But we've had several
12 and I was just out in Massachusetts -- that chose
13 not to get the flush-and-drain, and their DI
14 system was not set up properly so that we actually
15 over -- the amount of water that was being used
16 was not correct. They hadn't accounted for the
17 flow of it, and we found lots of silica in the
18 bottom of the generators, so now they're getting a
19 flush-and-drain kit.

20 MR. BAUGHMAN: I understand that
21 from an operational standpoint, but when we're
22 supplying the units, we can -- with that being
23 deselected, we can then blow the boiler down to
24 sanitary without any kind of blow-down separator
25 or after-cooler or what have you. So this device

1 has the ability to blow down -- without that
2 flush-and-drain being supplied, blow down to
3 sanitary at above 140 degrees, correct?

4 MR. AVERELL: It's a manual valve
5 and you would have to turn -- reach into the back
6 and turn this manual valve to drain it that way,
7 yes.

8 MR. BAUGHMAN: Yes. Okay. And
9 then the other comment was you mentioned that the
10 unit has to be below 5 psi in the generator before
11 it blows down.

12 MR. AVERELL: It also has to meet
13 below 140 on the temperature -- so it has to meet
14 two of those criteria.

15 MR. BAUGHMAN: Okay. Well, and --
16 because as we know, we're at 5 psi or even below
17 or from the atmospheric to in between 5, we're
18 above 212. So the criteria being going down to
19 sanitary is going to be that 140 and below.

20 MR. AVERELL: That's correct.

21 MR. BAUGHMAN: Okay. Very good.

22 Thank you.

23 MS. LaFRANCE: I'm not going to
24 spend terribly much time on the marketing data but
25 I do want to mention that the number one

1 consideration when we did voice of customer for
2 this product was space.

3 You heard from Kelly this morning
4 that space is so important. She's essentially
5 land-locked. She can't put more equipment in her
6 space. She has to have equipment that fits in the
7 existing space but has greater capacity. And that
8 was the most important thing that we considered
9 when we developed this product, was the space.

10 If we have a new facility, the impact
11 is great on, you know, the cost of adding
12 additional space because new facilities is \$250 a
13 square foot.

14 We're not likely to see SPD
15 departments getting more space either because
16 they're a cost center. So all of the space in the
17 facility generally goes to the OR and the patient
18 care side because that's the revenue side. So
19 we're not likely to get more space even if we're
20 trying to demand it, because it is a cost center.

21 By leaving, you know, the clearance,
22 the 36-inch clearance, we're increasing the
23 footprint by two to three times of, you know, what
24 we designed the sterilizer to be. And so there's
25 really, you know, no advantage to the customer to

1 purchasing the unit because they can't fit it in
2 their department.

3 There is some clinical impact. You
4 can see on the left here -- we do layouts for
5 customers for their equipment washing and
6 sterilizer equipment alike. And on the left you
7 can see we have a sterile storage room for all the
8 processed goods to be placed in. Once we process
9 goods, we want to make sure that they're isolated
10 from areas of contamination in the facility.

11 On the right, you see, if we have to
12 leave the clearance, the 36 inches of clearance
13 for a unit with a boiler, we have to eliminate the
14 sterile storage room, and there's a risk to
15 contaminating all those processed items. So it
16 does impact clinical work flow.

17 Per the AME guidelines, which is the
18 guidelines that -- the standard that our customers
19 follow, they want to see a separate sterile
20 storage area.

21 CHAIRMAN MORELOCK: So a quick
22 question...

23 MS. LaFRANCE: Yes?

24 CHAIRMAN MORELOCK: What would the
25 financials look like with an 18-inch clearance

1 which the State of Tennessee permits today?

2 MS. LaFRANCE: This would be
3 just -- this doesn't want to respond. Well, it
4 just doesn't want -- okay. There we go.

5 CHIEF O'GUIN: Chris O'Guin, Chief
6 Inspector. 18 is actually for the unfired, and
7 the power boiler on the bottom, which is 36.

8 CHAIRMAN MORELOCK: True.

9 MS. LaFRANCE: So it increases the
10 area required by two times. And so you're adding,
11 you know, several -- you know, tens of thousands
12 of dollars for a 36-inch; and 18 inches, it's
13 12,500. But this is only one third of the
14 picture, right, of a new facility.

15 The other is we're renovating old
16 facilities. Which most ASC's these days are 15 to
17 20 years old and they're all needing renovation at
18 this point.

19 The other case is where ambulatory
20 surgery companies purchase existing, like, medical
21 office buildings, and they don't have the space
22 for the SPD's in those buildings either. They're
23 purchasing an existing building.

24 And in the fight between patient care
25 area and SPD, the patient care area always wins.

1 They always get the space, so unfortunately, you
2 know, we don't expect that situation to change.

3 This is another case where when we
4 had to leave 36 inches between the sterilizers,
5 there was no place for the customer to cool their
6 load. They're not supposed to be touching any of
7 the items on the load. It could cause wet pack
8 before they're cool. And we're stuck kind of
9 cooling in between two rather warm sterilizers.
10 If this increases the cooling time, there's the
11 great temptation to remove those instruments while
12 they're warm and potentially causing wet packs.

13 When a wet pack gets to a surgeon,
14 they immediately reject it. So, you know, if
15 somebody's on the table, they don't have the
16 instruments to, you know, do the surgery with. So
17 it does become an important factor.

18 We definitely have designed this --
19 the sterilizer with safety in mind. We have a
20 15-year chamber warranty. It's all stainless,
21 316L stainless steel. We have retention bars on
22 the vertical door and the steam generator is
23 designed exactly the same way. We already
24 mentioned that it's supplied with RODI water and
25 is a stainless vessel.

1 So our conclusion here is that the
2 AMSCO 600 steam sterilizer was designed to provide
3 accessibility to all the components from the front
4 of the sterilizer so we can save that all
5 important space for the customer.

6 The Tennessee clearances differ from
7 our manufacturer-recommended clearances and we'd
8 really like for you-all to make an exception in
9 our case so that we can install it as it was
10 designed and intended to be installed.

11 We don't see that the additional side
12 and rear clearances is going to make it safer. We
13 think we've designed a very safe product. We go
14 to great lengths to inspect it periodically to
15 make sure that it stays safe, and we are
16 requesting this blanket exemption from these
17 clearance requirements at this time.

18 This is going to become critical to
19 the state of Tennessee. We'd kind of like to not
20 delay the decision any further because we have on
21 the books right now about 50 units for the state
22 of Tennessee, which is about 20 different sites.

23 And, you know, people like Kelly
24 Norman, they're not giving us an order right now
25 until they get an answer from you-all, am I going

1 to be able to put this equipment in here, because
2 she just has no room for it.

3 So we kind of would really like to
4 have a decision. So we're just requesting the
5 blanket variance per the statement that I already
6 made at the beginning of the presentation.

7 And I think we are done unless there
8 are any further questions.

9 CHAIRMAN MORELOCK: Okay. Any
10 questions from the board members?

11 MR. BAUGHMAN: No. I'll just make
12 a comment.

13 You know, as we're going through the
14 discussion, one of the items that was discussed
15 was this is being prompted by the explosive
16 growth.

17 MS. LaFRANCE: Yes.

18 MR. BAUGHMAN: And "explosive"
19 being the key word both because of the growth but
20 within the device that we're working with, both
21 boiler and the unfired vessel. So we're both
22 dealing with "explosive" being the key words with
23 it.

24 And this is all being generated from
25 the standpoint of space. And we all know that.

1 We've talked about it and that's what's generating
2 this whole discussion. But there again, equipment
3 manufacturers have requirements versus what local
4 jurisdictions do. We, and what we produce at our
5 shop -- we're a UL listed company, and we've got
6 our UL clearances which are different than what
7 the clearance requirements are for different
8 jurisdictions within the company that we work in,
9 let alone internationally.

10 So I understand what it is we're
11 looking for, but it has to be able to increase or
12 keep status quo on the safety. And that's
13 predominant. That's -- you know, we understand
14 that these are going into facilities that are
15 being renovated. Sometimes that's the cart before
16 the horse; that a lot of times these facilities
17 haven't thought about where my steam is available
18 from. Do I have an opportunity of building a
19 boiler room or do I have an outside place that I
20 can put a containerized boiler in, whatever the
21 application may be.

22 So what we're looking at is this
23 whole space conversation. And that's where this
24 is being driven at. And we're also asking for a
25 one size fits all for a blanket. And that in

1 itself is a tough proposition in the marketplace.

2 So -- and there's ramifications as
3 far as this decision. The blanket exemption
4 that's being asked for here, does that set
5 precedent moving forward for others within the
6 industry that we'd have to analyze.

7 MS. LaFRANCE: We would only ask
8 for the AMSCO 600. That is the only machine
9 that -- very specifically, that machine.

10 MR. BAUGHMAN: Sure. And it's
11 still under redevelopment. So we haven't gotten
12 the final product, so to speak, of the unit
13 itself, from what I'm hearing. We're making
14 changes and so forth.

15 But still, it gets down to the basics
16 of the clearance, so I just -- I just wanted to
17 kind of lay that out there from my perspective on
18 what I'm hearing and making sure that I understand
19 the clarity of what it is that we've discussed.

20 MS. LaFRANCE: Right. And it's
21 really not a matter of only space either. It's
22 our patients.

23 CMS, you heard Kelly saying they're
24 moving -- they are wholesaling the big procedures
25 out to ambulatory surgeries because they can do

1 them for half the cost in ambulatory surgery. But
2 the side effect of this has been that we actually
3 see patients recovering better, quicker. They
4 have better outcomes because they're not in a
5 hospital, getting an infection. They have, you
6 know, a quicker recovery period. They have a
7 better continuum of care.

8 So in 2018, CMS moved 131 procedures
9 from -- they took them off the list of inpatient-
10 only procedures, that they can only be done in a
11 hospital or a hospital outpatient setting.

12 And this year -- or by 2024, they're
13 going to be moving all 1,700 procedures that are
14 on that list to be able to perform these
15 procedures in an ambulatory surgery center because
16 it's less cost and patients do better.

17 So this is a trend that is going to
18 continue out there. It's not going back the other
19 way.

20 MR. BOWERS: This is Harold Bowers,
21 board member. I wanted to make a comment.

22 Now, specifically, when asking for a
23 variance on this unit --

24 MS. LaFRANCE: Yes. Just this
25 unit.

1 MR. BOWERS: -- a specially
2 designed unit with everything in front, I know we
3 had some issues that we've talked about with
4 sterilizers that really had nothing to do with the
5 clearance. We've talked about the sight glasses
6 and things. We have these miniature boilers all
7 over the state, I mean, hundreds of thousands of
8 them.

9 So the issue today is the clearance
10 issue with an inspection, which is specially
11 designed for front access.

12 MS. LaFRANCE: Correct.

13 MR. BOWERS: Okay.

14 MS. LaFRANCE: Yes. We want
15 you-all to feel comfortable that we're doing the
16 right thing. And we certainly, as a corporation,
17 always try to do the right thing by all of our
18 constituents. So hopefully, we've made you feel
19 that, you know, you can be comfortable with the
20 unit out in the field.

21 MR. BAUGHMAN: Another thing
22 that -- I mean, we've talked a lot about the
23 generator. We've talked very little, if any,
24 about the unfired vessel, and the unfired vessel
25 had it's own clearance requirements. And we

1 haven't looked at any of where the data tag is on
2 that particular unit.

3 We've really not discussed the
4 unfired end of it, which is an integral part of
5 this AMSCO 600, from what I understand. And so,
6 there again, being that they're kind of one in the
7 same, I didn't know how we even address that, but
8 we've lacked in somewhat of our -- somewhat in our
9 discussion, the unfired vessel side of it.

10 MS. LaFRANCE: The data tag -- I
11 think we showed in our original submission of the
12 presentation that we gave you in -- for March, the
13 data tag for the sterilizer is right in the front,
14 right on top of where the generator is, right
15 above the generator. So it's highly visible when
16 you take off the front panel.

17 MR. BAUGHMAN: Is that just for the
18 generator, though?

19 MR. AVERELL: No.

20 MS. LaFRANCE: No. That's for the
21 sterilizer.

22 MR. CHIFFON: No. That's for the
23 unfired vessel.

24 MR. BAUGHMAN: That's for the
25 generator and the --

1 MR. AVERELL: It's for the -- it's
2 for the sterilizer chamber of the unfired vessel
3 that has a plate, as does the generator have a
4 separate plate.

5 And if you were to look at a unit,
6 that power box you saw, the plate for the vessel,
7 is right up here (indicating). It's extremely
8 visible.

9 MS. LaFRANCE: It's extremely
10 visible.

11 MR. AVERELL: Because we --
12 because -- and I can say in 30 years, we never
13 used to have units with minimal back clearance.
14 And then we realized that space -- a foot of space
15 in an SBD or an OR is huge. And I've been in SBDs
16 where I thought it was an afterthought that they
17 actually had to sterilize these instruments that
18 they're doing in these surgery centers.

19 So I've been in where customers have
20 had to park carts outside but we still had back
21 access. So we came up with and said we're going
22 to work so that our unit can be serviced from the
23 front.

24 And I know it can, because my big fat
25 ass went inside and turned it off and pulled the

1 generator out, the very first one we installed in
2 the four corners of New Mexico. We were way out
3 there. I don't know why we picked there, but
4 that's where we went. And I -- we -- I was able
5 to pull the generator out and do all the work from
6 the front side of it.

7 And since we've gone to this
8 front-access only, we're now seeing more of them
9 where there's not a chance you're getting back
10 access; where the facility has actually had to
11 come and say, hey, we need to hook the water up
12 and have our backflow preventer back here. We
13 need the back access. They've actually gone to
14 the architects and asked for back access more than
15 we have, because we realize how important every
16 square foot is in these surgery centers.

17 MR. BAUGHMAN: When you mention wet
18 packs, we still have issues with wet packs in the
19 industry regardless of the generator itself
20 because of condensate issues, the steam and so
21 forth.

22 MS. LaFRANCE: Correct.

23 MR. BAUGHMAN: I mean, you know,
24 you deal with that within your end of the
25 industry. But I still -- I'm very thankful for

1 your presentation and all the information you've
2 provided on here to be able to move forward.

3 CHAIRMAN MORELOCK: Any other
4 questions or comments from board members to boiler
5 unit, anybody in the -- any of the visitors? Any
6 other questions?

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

9 Chairman, I just want to let the
10 Board know there has been a couple of instances
11 where they can't get the clearance. So some
12 STERIS engineers, they'll reach out to our office.
13 We work with them on a case-by-case basis to make
14 it work and still keep the safety, as needed, for
15 inspection clearance.

16 CHAIRMAN MORELOCK: Thank you,
17 Mr. O'Guin.

18 MR. HENRY: Mr. Chairman, to follow
19 up on that...

20 Would you see that as an appropriate
21 way to go forward with this, given some of the
22 concerns that Mr. Baughman has presented?

23 CHIEF O'GUIN: Personally, I'm not
24 in agreeance with blanket clearance for any vessel
25 in Tennessee. There's a lot that goes into this

1 vessel.

2 When you get an unfired pressure
3 vessel on the top, which, in Tennessee, is
4 18 inches of clearance, you've got a power boiler
5 on the bottom that requires 36 inches of clearance
6 in Tennessee. And if you go by NBIC, there's a
7 lot of different codes that pertain to both
8 vessels that you have to look at that I don't feel
9 you can adequately inspect front-access only from
10 the ones that we have seen in the field.

11 And I did reach out to Chief Troutt
12 in Texas, since one of the companies supporting
13 STERIS is out of Texas. A STERIS unit was
14 red-tagged a couple weeks ago and had to be moved
15 due to inspection clearance. They couldn't
16 inspect it. This was on our initial inspection,
17 so... And it was supposedly one that was
18 front-access only.

19 So it's not only our jurisdiction
20 that don't feel like you can properly do an
21 inspection from the front.

22 MR. BAUGHMAN: So, Mr. O'Guin, what
23 you're saying previously was is that on a
24 case-by-case basis, there's been reengineering --

25 CHIEF O'GUIN: Yes.

1 MR. BAUGHMAN: -- on a vessel or
2 device or the enclosure that gave access through
3 the removal of some panels to be able to get into
4 the unit itself?

5 CHIEF O'GUIN: Yes. The most
6 recent one -- and I don't recall if it's in
7 Nashville or Brentwood -- they're putting one in,
8 an AMSCO 600, I believe it is. They didn't have
9 the clearance on one side. They could only get
10 two inches or four inches. I don't recall the
11 exact number.

12 What we've come up with is they can
13 put a panel there where the wall is. Instead of
14 it being beside the wall, they can remove the
15 panel, and then we have our side clearance on that
16 one side plus the other side in the rear.

17 MR. BAUGHMAN: Interesting. Thank
18 you.

19 CHIEF O'GUIN: So we could still do
20 an adequate inspection.

21 CHAIRMAN MORELOCK: Anything else?

22 (No verbal response.)

23 CHAIRMAN MORELOCK: So my question
24 to the Board is do I have a motion for this item?

25 MR. BAUGHMAN: So the question is a

1 motion to approve the exemption?

2 CHAIRMAN MORELOCK: I mean, that's
3 their question, is they want a specific blanket
4 approval of relaxation of the clearance
5 requirements for the fired and the unfired vessel,
6 specifically for the AMSCO 600 unit.

7 Correct?

8 MS. LaFRANCE: Correct.

9 MR. BOWERS: I guess we have to
10 have a motion to up or down it, right?

11 CHAIRMAN MORELOCK: That's correct.

12 MR. BOWERS: I make the motion for
13 an exemption.

14 CHAIRMAN MORELOCK: So I've got a
15 motion for this. Do I have a second?

16 DR. HARGROVE: Keith Hargrove.
17 Second.

18 CHAIRMAN MORELOCK: Okay. So I've
19 got a second. Any other discussion?

20 (No verbal response.)

21 CHAIRMAN MORELOCK: Hearing none,
22 how many ayes do I have?

23 DR. HARGROVE: Aye.

24 CHAIRMAN MORELOCK: Okay.

25 MR. BOWERS: Aye.

1 CHAIRMAN MORELOCK: Okay.

2 Opposed?

3 MR. BAUGHMAN: Opposed.

4 MR. HENRY: Opposed.

5 CHAIRMAN MORELOCK: Okay. Not
6 voting?

7 (No verbal response.)

8 CHAIRMAN MORELOCK: So we have two
9 and two. So as Chairman, I'm going to vote nay.

10 I think the State of Tennessee needs
11 to work with STERIS. And a step forward would be
12 the State has already agreed to take these on a
13 case-by-case basis. Let the State of Tennessee do
14 that on a case-by-case basis until we can resolve
15 the concerns about the unfired vessel. We've not
16 even discussed those at all today.

17 And so not to impede you, you can
18 still do this, but you just need to take it to the
19 State of Tennessee, to the boiler unit, and work
20 that out on those installations that you need to
21 do now.

22 So we're not saying that you can't
23 install an AMSCO 600. You can. You've just got
24 to work with the State of Tennessee on a
25 case-by-case basis to get that done.

1 MS. LaFRANCE: And how do we
2 proceed from here?

3 CHAIRMAN MORELOCK: So what we need
4 to do from here is we need to satisfy the Board on
5 the unfired portion of this unit. And then,
6 depending on where we go from there, you could
7 come back and ask for a blanket again.

8 MS. LaFRANCE: In September?

9 CHAIRMAN MORELOCK: Yeah.

10 MR. BAUGHMAN: But from what I
11 understand presently, is you can go case by case
12 back to the boiler unit. If you had an
13 installation that you needed to put in or were
14 looking to put it in, you could work with them at
15 that time to see what needed to be done, as you've
16 already done with a previous installation.

17 MS. LaFRANCE: Right. But the
18 problem there is that we -- you know, as you saw
19 the layout that we presented, we plan ahead for
20 our installations. And to come down to the point
21 where we're at the installation and we're
22 wondering if we're going to get approval is
23 difficult because the customer is expecting that
24 all to be done up front.

25 CHAIRMAN MORELOCK: Well, but the

1 sooner that footprint is given to the State of
2 Tennessee, you'll get that approval. And as you
3 build more and more cases, you're going to build
4 your case to have a blanket.

5 MS. LaFRANCE: Okay.

6 CHAIRMAN MORELOCK: From successful
7 installations and successful operation, know, you
8 know, when these folks go in and do inspections on
9 them, if they come out clean and they can inspect
10 everything, all of that is just going to build
11 your case to make it a blanket.

12 MR. BOWERS: In the state of
13 Tennessee, whenever a boiler is installed, there's
14 a permission to install it. It goes by the Chief.
15 And, you know, it might -- at some point in time,
16 you're going to say, well -- you can get with the
17 architects and get with the Chief and say, "Here,
18 Chief, this is what we plan on doing. What do you
19 think?"

20 MS. LaFRANCE: Okay.

21 MR. BOWERS: You're hitting it from
22 the ground up, and the Chief -- because he's got
23 to approve all of the installations anyhow from
24 any kind of boiler. So you're just going through
25 where he -- like you said, case-by-case basis

1 where he would look at it and say, "Look at the
2 blueprints. What do you think, Chief?" And then
3 he can decide from there.

4 Does that sound right, Chris?

5 CHIEF O'GUIN: (Nods head.)

6 MS. LaFRANCE: Okay. That'll work.

7 MR. AVERELL: We can do that. We
8 do that in Michigan, so...

9 MS. LaFRANCE: Yeah. Okay. Thank
10 you very much for your help.

11 MR. AVERELL: Thank you, everybody.

12 CHAIRMAN MORELOCK: Okay. Going
13 back to our agenda, that concludes new business.
14 We are going to go on to Agenda Item Number 9,
15 Rule Cases and Interpretations. The first one is
16 BI 21-02, ECS Consulting requesting an
17 interpretation on the requirements for manually
18 operated remote shutdown switches assigned to
19 low-pressure boilers installed and operated in the
20 state of Tennessee.

21 And Mr. Toth has requested to table
22 that item to the September meeting, so we'll add
23 that to the September agenda.

24 That leads us to BI 21-03, which is
25 A.O. Smith Corporation requests reconsideration of

1 a boiler board interpretive ruling regarding the
2 clearance requirements for the installation of
3 gas-fired storage water heaters with energy inputs
4 less than 400,000 BTUs per hour.

5 So introduce yourself and present
6 your item.

7 Are there any conflicts of interest
8 from the Board?

9 (No verbal response.)

10 CHAIRMAN MORELOCK: No conflicts.

11 MR. HENCHERICK: We still insure
12 A.O. Smith, correct, FM Global?

13 I think we still insure you.

14 MR. GREENE: We have many insurers.

15 UNIDENTIFIED SPEAKER: Yeah, we do.

16 MR. GREENE: I don't know if, off
17 the top of my head, you guys still do or not.

18 MR. HENCHERICK: Okay.

19 CHAIRMAN MORELOCK: So we do have
20 one conflict of interest.

21 All right. Gentleman, proceed.

22 MR. GREENE: Well, thank you,
23 Mr. Chairman, members of the board, and staff for
24 your attention this morning.

25 My name is Josh Greene. I am

1 corporate vice-president of global government
2 affairs and industry affairs for the A.O. Smith
3 Corporation at the parent level.

4 I'm joined today by my colleagues, by
5 Greg Reynolds, who is global director of
6 certification and reliability, to my left, your
7 right.

8 THE REPORTER: Can you say that
9 name again?

10 MR. GREENE: Greg Reynolds. Greg
11 is director of global certification and
12 reliability for A.O. Smith.

13 And to my right, your left, is Jeff
14 Kleiss, who is senior product engineer of
15 certification at Lochinvar.

16 THE REPORTER: What is his name?

17 MR. GREENE: Jeff Kleiss,
18 K-L-E-I-S-S.

19 THE REPORTER: Thank you.

20 MR. GREENE: Sure thing.

21 All right. With that, we'll begin.

22 MR. REYNOLDS: If anyone needs
23 paper copies -- I don't know if anybody on the
24 board needs a paper copy of the presentation. We
25 have those available.

1 MR. GREENE: Thanks, Greg.

2 So this is just a brief overview of
3 what we're going to walk through this morning.
4 And we will keep efficient. And certainly, if
5 there are questions as we move along, we will do
6 our best to address those.

7 So as we do, we want to level set
8 related to A.O. Smith when we are in public and
9 talking to our peers and others. Guiding
10 principles is very important to A.O. Smith. These
11 are how we operate on a daily basis. These are
12 principles that were given to the company by the
13 Smith family when A.O. Smith was incorporated in
14 1874 in Milwaukee, Wisconsin, where we are still
15 globally headquartered.

16 Here in Tennessee, we have our
17 largest footprint in North America; just under
18 4,000 employees at this point. I'm not going to
19 read everything on the slides. But we're always
20 seeking to grow in Tennessee, because we very much
21 enjoy doing business here, the workforce, people,
22 culture. And our investment in Tennessee is very
23 long-lasting.

24 So what's bringing us together
25 today -- and you have this in your board

1 materials, so again, I won't read every word on
2 the slide -- is really getting a request and
3 guidance related to the 18-inch clearance for our
4 storage water-heating equipment below
5 400,000 BTU/H. This is on the commercial side,
6 obviously.

7 What we've run into is trying to make
8 sure that our customers are still able to spec in
9 and install their choice of equipment in our
10 storage product versus nonstorage product that is
11 beginning to be installed in Tennessee, and being
12 spec'd in with customers that we've done business
13 with for many, many years. And thus, we're losing
14 sales and some capital investment opportunities as
15 well. And we're hoping to get a mutual resolution
16 to this in front of you here today.

17 So just best practices, and I will be
18 turning over to my colleague Greg Reynolds
19 momentarily, this is nothing new to this Board.
20 Very well versed, obviously on NBIC and the
21 clearances and how it relates, obviously, when you
22 go below three feet. And we see this across the
23 country, and I know that you-all are very well
24 aware of this in terms of manufacturer
25 recommendations and, of course, you know, when the

1 jurisdictions have to approve when you're going
2 below the 36-inch clearance.

3 So I'm going to turn this over to
4 Greg, and we can keep on walking through.

5 MR. REYNOLDS: Okay. Very good.
6 So the first thing we want to talk about is just
7 to level set us, you know, what are we or what are
8 we not talking about; clearly there's multiple
9 types of clearances that we have listed in our
10 instruction manuals.

11 First is -- we've touched on, in some
12 of the conversations already this morning --
13 there's a safety requirement, which is just the
14 minimum clearances per testing towards the ANSI
15 standards.

16 Then there's the serviceability that
17 we put in our manuals that instruct installers on
18 what should be done in the installations, and
19 then, of course, the inspectability guidance that,
20 you know, bodies such as yourself here, the
21 Tennessee State Board, gives advice on.

22 So just briefly, on the first of
23 those types of clearances, the safety
24 requirements, you know, those could be zero
25 clearances. But again, that doesn't necessarily

1 afford what needs to be done for inspectability or
2 a, you know, sort of serviceability need.

3 So let's talk about serviceability.
4 Of course, in our instruction manuals, we have
5 illustrations about where all the critical
6 components are on each of the products and where
7 we need to make allowances for serviceability of
8 those key parts, the T & P valve, for example,
9 control systems, gas valves, cleanout openings,
10 drain valves and vent connections.

11 Okay. So just as we talk about
12 what's actually in place for Tennessee -- of
13 course you guys are well versed on this, but the
14 current law states the 36-inch clearance. There's
15 been some interpretive rulings, of course.

16 First, the Case BC 98-03, it allowed
17 for the 18-inch clearances for storage water
18 heaters. So that's definitely helpful in giving a
19 bit of relief on the amount of space that's needed
20 around the products.

21 Then further, there was a case, the
22 BC 06-23 that gave further guidance on the
23 wall-mount units that allowed for no clearance in
24 the case of mounting, actually, up against the
25 wall, which I'm going to touch on in more detail

1 on the next slide.

2 And then just in terms of, you know,
3 full transparency and clarity, there's other laws
4 outside of the state of Tennessee that includes,
5 you know, different levels of clearances that are
6 required. In some cases, you know, water heaters
7 that have less than 400,000 BTUs per hour do not
8 specifically fall under these sort of
9 requirements.

10 So more specifically, on the Case
11 BC 06-23, the part that I really want to highlight
12 here is the further guidance that was given based
13 on this interpretive ruling.

14 Point Number 1 here, of the wall side
15 clearance for wall-mounted boilers, at least give
16 some consideration that those types of products
17 are specifically designed to be hung on a wall.
18 And so what that looks like in actual application,
19 of course, is we did some illustrations here of
20 different types of products of water heaters and
21 what the clearance areas would look like by the
22 strict interpretation of the current rules that
23 are in place.

24 And the bottom illustration, of
25 course, a tankless unit showing that there's no

1 clearance required on the wall itself.

2 If you move to the left most upper
3 picture there, then you can see that a different
4 type of water heater, which is basically a
5 tankless-type product that's attached to the tank
6 and the clearances that would be required
7 according to a strict interpretation. Then also,
8 a different product type in the middle there,
9 with, again, a clearance all the way around the
10 outside of the unit. And again, over on the
11 right, just another different type of product that
12 shows also the clearances that would be required.

13 And keeping in mind, we're trying to
14 be as agnostic as possible in this conversation,
15 so this is not just A.O. Smith products that we're
16 talking about but just general, generic products
17 that are available out there in the market.

18 So what we would actually like to
19 request for the Board's consideration here is, you
20 know, as you see the tankless model in the bottom,
21 clearly, again, no clearances against the wall.
22 Similarly, going in the same order, if I look at
23 the unit on the top left, like I said, it's a
24 tankless unit attached to a tank. So similarly,
25 not much to inspect on the back half of the actual

1 tank of the vessel itself.

2 Likewise, on the unit next to it in
3 the center there, we purposefully designed that
4 product so that, you know, the main connections
5 are away from one particular corner of the product
6 itself so it could be installed into a corner
7 installation. And likewise, the product on the
8 right there was purposefully designed with no,
9 let's say, areas of concern besides a jacket, as
10 we would interpret it, to allow for our corner
11 installation.

12 So what are we asking for again here?
13 To amend the interpretive rulings to allow for the
14 manufacturer's installation recommendation related
15 to serviceability. To provide proper inspection
16 of the equipment, of course, is what we want to
17 make sure that there's allowances for that, and we
18 also would allow our customers greater choices for
19 a proper installation and, also, being consistent
20 with the safety standards, best practices.

21 And one of the major points here,
22 too, is making sure that it's neutral in terms of
23 design intent, from the different types of
24 products. Like I mentioned, we purposefully
25 designed some of our products to not have any

1 inspection points on parts of the product so it
2 could be more flexible in a particular
3 installation.

4 So summarizing all of that, we did
5 put together a suggested inquiry and a request for
6 reply for the board's consideration. I won't read
7 through all this here, but this is the main part
8 of our presentation and request to the board.

9 CHAIRMAN MORELOCK: What questions
10 does the board have?

11 MR. BAUGHMAN: So one question that
12 comes to mind is what is the manufacturer's
13 installation recommendation for clearance that
14 you're looking for, you're requesting
15 reconsideration, but you haven't given us what
16 exactly you're looking for. Are you talking about
17 zero clearance? Are you talking about -- how much
18 clearance are you asking for?

19 MR. REYNOLDS: Right. So in the
20 case of around the different parts of the water
21 heater that would require inspection, our manual
22 suggests that we have 24 inches, actually, for
23 serviceability. That's what our instructions say
24 in our manual. You know, a consideration that you
25 guys are already allowing less than that, for

1 18 inches, but we give instructions in our manuals
2 that the 24 inches would be appropriate.

3 MR. BAUGHMAN: Okay. So I'm a
4 little confused inasmuch as we're asking for --

5 MR. REYNOLDS: So let me try to
6 restate it to be clear.

7 MR. BAUGHMAN: Thank you.

8 MR. REYNOLDS: So if I can go back
9 a slide here, what I'm saying is that on parts of
10 the unit where there's no parts to be inspected,
11 like -- if I may approach the screen here -- this
12 red area, of course, is talking about the areas
13 that we would require for inspection. So on this
14 side of the unit, this quadrant back here, there
15 would be nothing that we would consider that would
16 need to be inspected. So this could be up to zero
17 distance on those sides of the product.

18 But in the other areas, you know,
19 certainly 18 inches would be preferable. But,
20 like I said, in our manuals itself, we instruct
21 people to -- we recommend the 24 inches.

22 MR. BAUGHMAN: Thank you. So to
23 clarify, we're actually looking at a possibility
24 of zero clearance. And what you're saying is
25 parts that have to be inspected, i.e., whatever

1 they may be, you recommend 24 inches or suggest
2 24 inches.

3 MR. REYNOLDS: Right.

4 MR. BAUGHMAN: But what we're
5 getting down to is actually talking about zero
6 clearance on the vessel itself.

7 MR. REYNOLDS: On the vessel
8 itself.

9 MR. BAUGHMAN: Okay. And I
10 appreciate that clarification. And we're talking
11 about both water heaters and hot-water supplied
12 boilers, correct, from what I read in the request?

13 MR. REYNOLDS: Yes.

14 MR. BAUGHMAN: Okay. So water
15 heaters bring a different aspect than what boilers
16 do. So it's really two different things that
17 we're looking at that you're asking for an
18 exemption or a reconsideration, since we already
19 have what those requirements are. But you're
20 asking us to make a change to both the water
21 heaters and the boilers, just to clarify.

22 MR. REYNOLDS: Correct.

23 MR. BAUGHMAN: Okay. Are these
24 units UL listed?

25 MR. REYNOLDS: So yes. We -- we

1 sometimes certify with different agencies, whether
2 it be UL or CSA.

3 MR. BAUGHMAN: Okay.

4 MR. REYNOLDS: But still certified
5 to the ANSI standards per our agency like UL is.

6 MR. BAUGHMAN: And I take it
7 because of that and they are listed, if they're
8 UL, that UL has given acceptance because of that
9 to zero clearance.

10 MR. REYNOLDS: Yes. Absolutely.
11 That's a requirement for all of our products.

12 MR. BAUGHMAN: Very good. Well,
13 again, I've got some concern in just the
14 delineation of storage-type water heaters which is
15 kind of an animal that's phasing out over time as
16 it is. You've got Lochinvar that makes a
17 stand-alone that goes to a separate storage unit.

18 MR. REYNOLDS: Sure.

19 MR. BAUGHMAN: They mount a water
20 heater up on top of the storage unit.

21 MR. REYNOLDS: They do.

22 MR. BAUGHMAN: There's all types of
23 different configurations. A.O. Smith makes a
24 storage-type gas-fired water heater, but those are
25 kind of moving out over time through efficiencies

1 and what have you on what's changing in the
2 industry, just from my perspective, from what I
3 see out there.

4 The boiler side of it, not so much,
5 because boilers, we're not necessarily working
6 with a domestic type of application. We're
7 utilizing either high rates of heat transfer or a
8 storage type of vessel itself. So I still have
9 a -- somewhat of an issue of us looking at both
10 water heaters and boilers in this request.

11 MR. REYNOLDS: So if I may respond
12 to that.

13 MR. BAUGHMAN: Yes, sir.

14 MR. REYNOLDS: The storage-type
15 water heaters that we manufacture are, you know,
16 under our trade name, Cyclone Products. It is
17 very popular still, particularly in restaurant
18 applications.

19 MR. BAUGHMAN: Dry cleaners.

20 MR. REYNOLDS: Right. Right. So
21 we have expectations in the hotel and restaurant
22 industry that we still have quite a bit of runway
23 on that product.

24 MR. BAUGHMAN: Well, hotels take
25 quite a bit of storage --

1 MR. REYNOLDS: They do.

2 MR. BAUGHMAN: -- early in the
3 morning --

4 MR. REYNOLDS: Yes.

5 MR. BAUGHMAN: -- and late in the
6 evening. So these storage vessels are limited to
7 where you would have to put multiples in to meet a
8 demand as it is in that type of application.

9 MR. REYNOLDS: Yes, sir. That's
10 absolutely true and that's part of the
11 considerations, that we would like for you guys to
12 consider here is the space that's associated with,
13 you know, having to put multiples in, to your
14 point.

15 CHAIRMAN MORELOCK: So my question
16 is, you're citing VCO6-23 and VC98-03, correct?

17 MR. REYNOLDS: That's right.

18 CHAIRMAN MORELOCK: So we don't
19 have a proposal from you to vote on. You should
20 have a board case, BC 21-XX with a title,
21 statement of need, background, and then you would
22 spell out what you want your inquiry to read. So
23 we don't have anything to vote on.

24 MR. GREENE: So the inquiry and the
25 reply that was submitted was insufficient?

1 CHAIRMAN MORELOCK: Well, let's
2 look at it.

3 DR. HARGROVE: If I may ask, while
4 we're --

5 CHAIRMAN MORELOCK: You go ahead,
6 Dr. Hargrove.

7 DR. HARGROVE: I'm still not clear
8 if the clearance request is from both types of
9 instruments, water heaters versus boilers.

10 Question: What are the clearance
11 requests by the manuals for the water heaters
12 versus the boilers?

13 MR. KLEISS: I'll speak to that.
14 So the clearance requirements that are going to be
15 put into the manual are going to be established
16 based on need for access to safety device's
17 inspection as well as the clearances that are
18 determined by the safety testing that's done to
19 the applicable standard, be that ANSI Z21-13 for
20 boilers and hot water supply boilers or ANSI
21 Z21-10.3 for commercial water heaters.

22 So that goes to the earlier slide
23 where there's the safety clearances,
24 serviceability and then inspection. And so all
25 three of those are factored into what we would put

1 into the installation instructions. And that will
2 almost always be in the first section, the
3 placement with directions for clearances. That's
4 pretty uniform for, I believe, all manufacturers
5 to do that.

6 As far as the differences between a
7 water heater and a hot water supply boiler, a
8 water heater will have -- if it has an ASME
9 pressure vessel, it will have an HLW-stamped
10 pressure vessel, which per ASME Section 4, a hot
11 water supply boiler will have an H stamp heat
12 exchanger, also under ASME Section 4.

13 Beyond that, though, the limit
14 controls and safety devices are going to be
15 consistent between those two devices. And the
16 intended purpose of those devices are ultimately
17 the same.

18 So there's not a large difference
19 between a water heater and a water boiler other
20 than how some of the jurisdictional authorities
21 might require additional safety controls on a hot
22 water supply boiler over a water heater.

23 DR. HARGROVE: So your proposal is
24 the same for both or a difference in each?

25 MR. KLEISS: It calls out water

1 heater or hot water supply boiler. Yes, sir.

2 MR. BAUGHMAN: So I would ask, are
3 the relief valves different for a water heater
4 versus the boiler?

5 MR. KLEISS: So --

6 MR. BAUGHMAN: Does one not need a
7 T & P versus a pressure --

8 MR. KLEISS: So a water heater may
9 have a T & P or a pressure relief valve, depending
10 on the design. T & P relief valves are required
11 in storage vessels, that the temperature sensing
12 element, the thermostat, or the -- the temperature
13 sensing device that goes down inside of the tank
14 is there to relieve if the water temperature
15 inside of the vessel exceeds 210 degrees.

16 MR. BAUGHMAN: I understand, but I
17 am -- because we're talking about storage-type
18 water heaters and you mentioned boilers, so there
19 is the difference. Being that we're specifically
20 talking about a storage-type water heater, then it
21 would be required to have a T & P valve being that
22 it's the storage type.

23 MR. KLEISS: Correct.

24 MR. BAUGHMAN: Okay. That was what
25 I was getting at. So there is a difference

1 between the boiler and the water heater. There's
2 also a difference in that the water heater is
3 limited to 210 degree F versus the boiler can go
4 to 250, correct?

5 MR. KLEISS: Correct.

6 MR. BAUGHMAN: Okay. So, to me,
7 there's differences. I know in the past there was
8 differences on the head. Sometimes the boiler
9 heads were constructed differently, bronze versus,
10 say, a cast head or whatever is being used in the
11 industry.

12 But I just wanted to clarify. To me,
13 there's very specific differences in the
14 operation, the controls, and the relief valves
15 themselves. So to me, they're two separate
16 animals altogether.

17 MR. KLEISS: If I may, though, for
18 a -- and there's a difference there between a
19 storage water heater and an instantaneous water
20 heater. Because an instantaneous water heater, as
21 well, still HLW, could have just a pressure relief
22 valve and not have to have a --

23 MR. BAUGHMAN: But for the purpose
24 of this discussion, we're not including
25 instantaneous.

1 MR. KLEISS: Correct.

2 MR. BAUGHMAN: And that's why I was
3 bringing it up, because we're specifically talking
4 about storage-type water heaters and/or hot water
5 supply boilers. That's where I was getting my
6 clarification. I didn't want to bring in the --

7 MR. KLEISS: Fair enough.

8 MR. BAUGHMAN: -- instantaneous
9 wall-mounted whatever's that were out there.

10 MR. KLEISS: Okay.

11 CHAIRMAN MORELOCK: Other comments?

12 MR. BAUGHMAN: So as our present
13 day code stands -- and I take it in your
14 installation instructions, it also says always
15 consult local jurisdictional requirements that
16 you've got.

17 MR. KLEISS: Yes, sir.

18 MR. BAUGHMAN: Sure. And that's
19 where there's a big issue at. Years ago, I know
20 there was questions with CSD-1. It said you've
21 got to specifically tell us what you want because
22 of all the different interpretations of CSD-1.

23 It's like, well, CSD-1 is pretty
24 black and white, but -- I understand, but in the
25 industry, there's a lot of people that don't know

1 what it is they're selling. There's a large lack
2 of education within the sales industry for these
3 representatives to know what the code requirements
4 are and so forth.

5 So we deal with a lot of interesting
6 stuff from a clearance standpoint, let alone on
7 the control side. But as it stands right now, we
8 require, for the hot water heaters, 18 inches.
9 And that's for the storage type, since that's what
10 we're talking about.

11 CHIEF O'GUIN: It's below 400,000.

12 MR. BAUGHMAN: Below 400,000. And
13 on the boilers that would be tank-type hot water
14 supplied boilers with heat input below or equal to
15 400,000, we require what clearance?

16 CHIEF O'GUIN: If you're talking
17 about an H-stamped boiler, three feet.

18 MR. BAUGHMAN: Three feet. And so
19 the request is to give a blanket -- or from what
20 I'm interpreting, you want a blanket or a
21 reconsideration of those to go to zero clearance,
22 possibly.

23 MR. GREENE: Possibly. So long as
24 the inspection of those elements is afforded to
25 the inspector.

1 MR. BAUGHMAN: Okay.

2 MR. HENRY: Mr. O'Guin, if I could
3 ask, the clearances that are in place right now,
4 that's for around the entire...

5 CHIEF O'GUIN: That's for the
6 inspection clearance so we can ensure no illegal
7 welds have been performed, look for leaks on a
8 vessel, pull the covers off, look at the NOs.

9 I could keep naming, but we see,
10 especially in the industry that they're talking
11 about, they're having an issue with clearance.
12 You know, we see a lot of stuff trying to get by
13 code and trying to make this vessel last another
14 year or two. You know, we'll throw a little weld
15 on them. If it's not a certified weld, it's just
16 not a good way to go about it.

17 And if we don't have the 18 inches to
18 inspect, we can't truthfully sign off saying we
19 got a truthful inspection, if you can't inspect
20 the whole vessel.

21 And that's my opinion as Chief
22 Inspector.

23 MR. HENRY: Thank you.

24 CHAIRMAN MORELOCK: Other comments?

25 MR. BAUGHMAN: And I take it there

1 still is the availability of case-by-case rulings
2 by the boiler unit to say, well, we've only got X
3 amount of clearance, whether that be 30 inches --
4 I mean, the whole gist of the rule is to be able
5 to have enough room to inspect. And so you may
6 have the same thing.

7 You may have a wall that has a little
8 partition you can take out and still get to it and
9 what have you. But there's still case-by-case
10 basis, as I would take it, that you've got some
11 variable to work with.

12 CHIEF O'GUIN: Yes. Some
13 instances -- which I've worked with weekly
14 engineers and architects. You know, they'll come
15 in from, you know, New York or somewhere and have
16 all these plans. Well, the end result they find
17 out they've got to have a permit after my
18 inspector had a drop-in visit.

19 And now they've got no clearance so,
20 you know, we'll back up and work with them to get
21 the clearance and not burden the builder.

22 MR. HENRY: If I could ask for
23 further clarification. If in a situation you had
24 access to a particular surface from the opposite
25 side -- I mean, this is the situation: You've got

1 a unit that's set up. It's dead set against the
2 wall, but you do have access, because of the way
3 the equipment is designed, from the opposite side.
4 Does that satisfy the --

5 CHIEF O'GUIN: So are you saying,
6 like, you can pull the wall panel off or something
7 like what we've talked about with the unit
8 earlier?

9 MR. HENRY: Right.

10 CHIEF O'GUIN: Yeah. But if they
11 could pull the wall panel down, then we'd have
12 access all the way around the vessel, and yes,
13 that would satisfy.

14 But as currently, I mean, we will do
15 case-by-case basis; especially in historic
16 buildings, it's hard to get the clearance.

17 MR. GREENE: If I may,
18 Mr. Chairman.

19 CHAIRMAN MORELOCK: Yes.

20 MR. GREENE: So on this, the
21 inspectability, seeing the entire vessel -- and
22 Chief Inspector, you had just made a reference to
23 potentially taking the jacket off -- and we're
24 talking about a cylindrical vessel, and our issue
25 really is more so, as we've discussed and as the

1 Board has discussed earlier today, is the pre is
2 the specification of even having the product
3 spec'd into the job.

4 Is it -- and this is probably for our
5 edification. Is it the normal course of business
6 even with an 18-inch clearance that you would take
7 the jacket off that product?

8 CHIEF O'GUIN: If we suspect any
9 kind of welding, et cetera, we will make them pull
10 the jacket off of that product, yes, sir.

11 Or we can red tag the vessel and they
12 have to take it out of service, which would burden
13 the business. He would be closed until he gets a
14 new vessel installed, if we can't verify.

15 MR. GREENE: Right. And I guess,
16 Chief, what I'm trying to draw a distinction of
17 is, for us, and what brings us here today is that
18 would all and certainly would be a hundred percent
19 appropriate in our view, a hundred percent.

20 It's more so when we are competing,
21 our products are competing with other product in
22 the state of Tennessee, at the moment. Our
23 product is not potentially even getting spec'd
24 in -- brand new -- spec'd into the mechanical room
25 because of the 18-inch clearance, right, versus

1 another product that has the same utility but is
2 just being mounted on the wall that doesn't have
3 the same 18-inch clearance.

4 CHIEF O'GUIN: I believe A.O. Smith
5 sells instantaneous water heaters, too, don't
6 they?

7 MR. GREENE: We certainly do, but
8 what we're really talking about here is a storage
9 product that we have a lot of customers that still
10 prefer that particular product because of its
11 longevity, it's efficacy, its thermal
12 efficiencies, what have you.

13 But you're absolutely right. We
14 have products that would otherwise serve the
15 marketplace. We just have customers that prefer
16 one over the other.

17 CHIEF O'GUIN: I guess what I'm not
18 following is storage heaters in Tennessee, storage
19 tank type, all require 18 inches; instantaneous
20 type, they all require 18 inches. So I'm not
21 following how you're not being able to meet the
22 same requirements other installers do in
23 Tennessee, or other manufacturers. Everybody has
24 the same clearance.

25 MR. BOWERS: Your tankless hot

1 water heaters are 18 inches in Tennessee.

2 MR. REYNOLDS: You're right. Yeah.
3 We agree with that point. The point -- let me try
4 and speak to that here.

5 So what we're trying to say is,
6 clearly, with the tankless units, there's not a
7 requirement for 18 inches in the 360 degrees
8 because, clearly, they're mounted to the wall by
9 definition.

10 And so what we're saying is there's a
11 purposeful point to design this sort of product to
12 allow for it to be mounted against the wall. We
13 put that same -- as an engineer, that same design
14 intent into this to say that it was purposeful
15 that it could be put into a corner.

16 So we're saying that right now the
17 interpretations don't allow for that product to be
18 used with that utility. Does that make sense?

19 MR. BOWERS: Yeah. What you're
20 saying, since the tankless unit is flat --

21 MR. REYNOLDS: Yeah.

22 MR. BOWERS: -- it's against the
23 wall.

24 MR. REYNOLDS: Right.

25 MR. BOWERS: So that you don't have

1 the 18 inches between the flat side and the wall.

2 MR. REYNOLDS: Right.

3 MR. BOWERS: Where on a round hot
4 water heater, you don't have that 18-inch
5 clearance. You can't put it up, that round unit,
6 against the wall --

7 MR. REYNOLDS: Right.

8 MR. BOWERS: -- where a tankless,
9 you can put against the wall.

10 MR. REYNOLDS: Right.

11 MR. BOWERS: That's what you're
12 saying, correct?

13 MR. BAUGHMAN: So what we'd be
14 saving is just the 18 inches off the back side.
15 We still have the requirement of 18 inches on the
16 side and the front.

17 You're just looking to save that
18 18 inches on the back; is that correct?

19 MR. REYNOLDS: Right.

20 MR. GREENE: Correct.

21 MR. BAUGHMAN: Okay. And you're
22 saying that's a disadvantage in the marketplace at
23 this time because of space?

24 MR. REYNOLDS: Yes.

25 MR. BAUGHMAN: Okay. So it's

1 totally a space issue, cost savings type of --
2 okay.

3 MR. REYNOLDS: Yes.

4 MR. KLEISS: And, Chief O'Guin,
5 related to the inspection of a vessel,
6 particularly if there was service done on it, I
7 appreciate that. I don't want anybody welding on
8 something that came out of our factory.

9 Many of our vessels -- or most of our
10 tanks are foam insulation. It would be very, very
11 obvious if somebody had gotten into one of
12 those --

13 CHIEF O'GUIN: It happens.

14 MR. KLEISS: -- to do the service.

15 CHIEF O'GUIN: It happens.

16 MR. KLEISS: It does.

17 CHIEF O'GUIN: It's horrible, but
18 they will weld them and make them get by. And if
19 it's stuck in the corner, then we can't -- you
20 know, we won't see it. We'll miss it. I don't
21 know how they weld them, but they weld them. It's
22 not a Tennessee -- you know, it's not a good
23 repair.

24 MR. BAUGHMAN: Interesting.

25 MR. HENRY: If I may, to make sure

1 I understand completely, the basis -- I guess the
2 argument that you're making is that you have
3 specifically designed these units to recognize the
4 fact that a portion of the surface will not have
5 access. You've specifically designed them so that
6 they can be fully inspected from the surfaces
7 where you do have access.

8 MR. REYNOLDS: That's true. Yes,
9 sir.

10 MR. HENRY: Okay.

11 CHAIRMAN MORELOCK: Any other
12 questions or comments?

13 MR. BAUGHMAN: So what we're
14 looking at is the purpose of this was to be able
15 to put it in a corner, correct?

16 MR. GREENE: Right.

17 MR. BAUGHMAN: But the other
18 purpose is to be able to butt them up, side by
19 side, and reduce that clearance also, correct?

20 MR. GREENE: That's another
21 consideration.

22 MR. BAUGHMAN: Okay. All right.
23 And that's what --

24 MR. GREENE: It's all installation
25 specific, as you can appreciate.

1 MR. BAUGHMAN: Sure. Well, and
2 by -- if we approve that, we've got to understand
3 that that, then, is the accepted norm by us voting
4 and saying, well, you know, what we're looking at
5 is being able to put it in a corner, but we now,
6 because of this acceptance, can put them side by
7 side with zero clearance, because that's what we
8 voted on.

9 So I just wanted to make sure in my
10 mind I was understanding the ramifications of
11 whether we voted to approve or not.

12 CHAIRMAN MORELOCK: And if you had
13 them side by side by side, that would increase the
14 surface area that you cannot inspect because
15 they're setting side by side, correct, out of that
16 cylinder?

17 MR. GREENE: Well, certainly, but
18 the other consideration is, depending upon the
19 installation, zero clearance in the rear, because
20 how these products are otherwise designed and
21 engineered, you can still have in the mechanical
22 room an 18-inch --

23 CHAIRMAN MORELOCK: Exact --

24 MR. GREENE: -- between the two
25 vessels, not necessarily stacking them with zero

1 clearance next to one another. And that's how
2 our -- the illustrations would --

3 We have a 24-inch in the manual. But
4 the 18-inch between two of those or three of those
5 storage products, that 18-inch off the back wall,
6 in our experience and now increasingly is becoming
7 an issue with the engineers and the specifiers in
8 some of these hotel jobs, amongst others, where
9 they're saying, look, we're just going to do
10 something different, which is, of course, a
11 customer's choice.

12 And we're not here to say the
13 customer shouldn't have choices. They should.
14 But it's still -- we would still be able to do the
15 18-inch between two or three of these.

16 MR. BAUGHMAN: But is that what's
17 being asked for?

18 MR. GREENE: Well, we've talked a
19 lot, and we've gotten clarifications, which have
20 been very, very helpful.

21 It sounds as if we need to repurpose
22 what is the inquiry and reply, unless we are going
23 to -- I mean, lawyers do it. I don't know if
24 Counsel wants to do it with me, but draft --
25 draft -- redraft this in front of the Board.

1 So really looking for guidance on
2 next steps on what would be more appropriate, now
3 that I think we've had a robust discussion and
4 clarification of what it is that we are seeking.

5 CHAIRMAN MORELOCK: I think that
6 would be the best course of action. But we can't
7 write it for you; you've got to write it.

8 MR. GREENE: Oh, no. I do plenty
9 of writing every day.

10 CHAIRMAN MORELOCK: So we can't
11 develop it by commission and then you put it down
12 on paper.

13 MR. GREENE: No. Understood.
14 We'll want to make sure that, you know, we've
15 drafted it in a manner in which upon our return,
16 right, to this august body, it will be accepted.

17 CHIEF O'GUIN: (Indicating.)

18 CHAIRMAN MORELOCK: Mr. O'Guin?

19 UNIDENTIFIED SPEAKER: Chairman,
20 can I ask a question?

21 CHAIRMAN MORELOCK: In just one
22 second, yes.

23 CHIEF O'GUIN: Chairman, what are
24 you suggesting, that he bring it back through as a
25 board interpretation, a board case or -- I know

1 when we'd spoke before, you know, this was kind of
2 a tough decision trying to figure out what to put
3 it under.

4 CHAIRMAN MORELOCK: Well, if you're
5 going to focus on this style of heater, a board
6 case would be better because you're going to be
7 more specific about what you want.

8 That's why I asked my initial
9 question, is what are we doing with this inquiry.
10 And so if that is your concern with your
11 cylindrical heaters that you're kind of getting
12 beat up in the world of trying to sell those and
13 get them installed, then if that's what your focus
14 is, write that inquiry for that.

15 That's what I was struggling with;
16 what all could fall under this if we approve this.
17 You know, somebody more clever than me could say,
18 hey, look at this. We could put all sorts of
19 stuff in with this.

20 And so if this is what your focus is,
21 I would write a board case specifically for that
22 to the clearances that you desire.

23 What do you-all think about that?
24 Does that --

25 DR. HARGROVE: Absolutely.

1 MR. BAUGHMAN: I think that's the
2 direction to go in. I think that would be prudent
3 and give better clarification on what exactly it
4 is that we're needing to go for. And I think
5 that's good for both you to know for your own
6 clarification, as the manufacturer, and for those
7 that are within sales on down from manufacturing,
8 especially just to know where we sit in the state
9 of Tennessee.

10 I know other states are totally
11 different. We've done a little bit of homework on
12 what other state requirements are out there. So,
13 again, in your instructions, it goes by consult
14 with local jurisdiction. But at least we'll be
15 able to know where Tennessee sits within that.

16 MR. GREENE: Okay. Board -- I
17 appreciate that, Mr. Chairman and members of the
18 board in terms of the board case. Hopefully, we
19 can work with the Chief and staff on the proper
20 structure. We'll draft it. But the proper
21 structure and intent, because I'd heard you say,
22 Mr. Chairman, that -- you had started to say an
23 inquiry. I'm not sure if the board case has the
24 same structure and format of proposing an inquiry
25 and reply. But we can talk about that.

1 CHAIRMAN MORELOCK: You're going
2 to -- with a board case, you're going to say, "Can
3 I do this?"

4 And then the answer will be a yes or
5 no.

6 MR. GREENE: Yes or no works.
7 Sometimes with children it doesn't, but...

8 CHAIRMAN MORELOCK: And it'll be --
9 it's the opinion of the Board that you can do
10 these things.

11 MR. GREENE: Understood.
12 Understood. Okay. Thank you for your time.
13 Thank you, gentlemen.

14 CHAIRMAN MORELOCK: Thank you.
15 That takes us to Item 10, which is
16 Open Discussion Items.

17 And, Mr. Baughman, did you want to
18 discuss Tennessee Code Annotated 68-122-110,
19 inspection of boilers under (a)(2) concerning low
20 pressure heating boilers shall be inspected both
21 internally and externally biennially where
22 construction will permit.

23 MR. BAUGHMAN: The question being
24 is do I want it discussed? Yes. Do we have the
25 time to discuss? I'll leave it up to you. But

1 I'd love to give at least another two cents' worth
2 if we've got a handful of minutes.

3 CHAIRMAN MORELOCK: We've got
4 21 minutes.

5 MR. BAUGHMAN: Okay.

6 CHAIRMAN MORELOCK: And --

7 MR. BAUGHMAN: And then my next
8 question would be allowing what we want to do on
9 the variance checklist.

10 CHAIRMAN MORELOCK: Right. We've
11 got the checklist, too, so...

12 MR. BAUGHMAN: Okay.

13 CHAIRMAN MORELOCK: Okay?

14 MR. BAUGHMAN: Well, just briefly,
15 we have up for discussion -- this is nothing we're
16 voting on as it is. It's totally a discussion
17 unit. But Tennessee Code Annotated 68-122-110,
18 under Number (2)(a), each boiler used or proposed
19 to be used within the state shall be thoroughly
20 inspected as to the construction, installation,
21 condition, and operation as follows.

22 And Item 2, low-pressure heating
23 boilers shall be inspected both internally and
24 externally biennially where construction will
25 permit. And that's straightforward. That says we

1 inspect the boilers internally and externally;
2 internally one year, externally, so forth, going
3 back and forth.

4 The discussion came about and, again,
5 under inspection requirements in our own Tennessee
6 codes, 0800-03-03-.05 inspection requirements,
7 frequency of inspections, all boilers and pressure
8 vessels subject to inspection under the act shall
9 be inspected in accordance with the requirements
10 of Tennessee Code Annotated 68-122-110, which I
11 just stated.

12 So this discussion is centered around
13 a rather long review of what we were seeing in the
14 industry. As we were working, we were finding
15 boilers that were not getting inspected. In other
16 words, what would come about was the boiler looked
17 good, or it's a hot water boiler. It's a boiler
18 that because the code says construction
19 permitting, we couldn't look at it internally.
20 And that's true.

21 A.O. Smith makes some; Lochinvars,
22 you name it. There's a number of boilers that you
23 cannot look at internally on the pressure vessel
24 side, but you can look at some of these boilers on
25 the fire box side. In other words, we've got a

1 lot of issues with the burners burning up because
2 they're not properly maintained, and then that
3 causes the heat transfer surfaces to soot. And
4 then the fire has nowhere to go but roll out the
5 sides, and you've got carbon monoxide issues.
6 You've got the boiler issues themselves and so
7 forth.

8 So what happens in our industry is
9 that a lot of these boilers don't get looked at
10 the way they should. And what it's come down to
11 is inspector discretion. And the code doesn't
12 state at inspector's discretion; it states
13 construction permitting.

14 And so as we've had these discussions
15 over the years -- and we work with a lot of
16 inspectors in the industry -- I know how much I
17 don't know, but what little I know in the 44 years
18 of being at Allied Boiler is that there is a lot
19 of lack of information in the industry.

20 The inspectors are looking at
21 anything and everything. And so it's like having
22 to know everything about every car that's made, of
23 all of its nuances and intricacies and what to
24 look at, what I can look at, what I can't.

25 And so we didn't want it to be at the

1 inspector's discretion. We wanted to be able to
2 produce more information in the industry to
3 educate the inspections -- the inspectors
4 themselves on how that boiler needs to be
5 inspected, whether it can be looked at internally,
6 whether the burners can be looked at without any
7 kind of issues.

8 But a big part of this is that the
9 inspectors don't necessarily have all the
10 information they need to know to be able to know
11 what to look at on that boiler. And so because of
12 that, it gets just moved along.

13 The boiler looks good. Have you had
14 any operating problems? No? Everything's good?
15 That's great. How's the family? Been fishing
16 lately? And so forth. Things move along in this
17 kind of fashion.

18 So what I wanted to do was to at
19 least get us to the point of saying it's not at an
20 inspector's discretion. It's at the determination
21 of whether that boiler can actually be looked at
22 and inspected properly. And that's just through
23 communication with those in the industry, whether
24 that's back to the boiler unit or that's back to
25 another boiler company to get the information or

1 what have you.

2 But we just didn't want to leave it
3 status quo with where we are in the industry. And
4 I've had inspectors that I would have loved to
5 have had it on recording. I didn't ever need to
6 look at this boiler. Well, why? Well, it's a hot
7 water boiler. And we open it up and the low-water
8 cutoff doesn't work or the burners have burned up
9 or we've got some serious issues.

10 Insurance has worked out this,
11 because what they've had is boilers that had
12 failed and the customer produced a claim back
13 through insurance. And insurance denied it,
14 saying it was erosion corrosion.

15 My reply back was when was the last
16 time the boiler was inspected, because that boiler
17 is 22 years old and has never been opened up and
18 would have been able to have made corrections to
19 the boiler itself through water treatment, through
20 whatever the situation was, to have eliminated
21 this condition if it had been properly inspected.

22 Oh, so then they go back through the
23 process, ask the inspector, have you looked at it
24 internally. No. Well, because of that, then, the
25 claim gets paid.

1 So there's a lot of things that
2 happen because of the boiler not being looked at
3 as it should, if it can be looked at, construction
4 permitting. So that's where this conversation was
5 to come about with saying this is where our code
6 sits; this is how it is. The interpretation is
7 such that it's basically on low pressure on hot
8 water supply boilers.

9 There's very little that gets passed
10 by on high-pressure steam. We always open up the
11 high-pressure steam boilers, as they should. But
12 the code doesn't differentiate; it says the same
13 thing for low pressure. The only other added
14 verbiage is construction permitting. So
15 henceforth, the discussion item, why I was laying
16 it out there, so that we can then produce this
17 information back along to the state and insurance
18 inspectors to say, hey, here is where we're at.
19 We need to get everybody on the same page.

20 And my recommendation is to start
21 perpetuating more education in the marketplace,
22 i.e., hands-on training to the different types of
23 boilers that are within the market that we work
24 within.

25 And we've got a fairly finite number

1 of manufacturers that are in the industry. And it
2 will take some time, but I think that through
3 communication and increased training, we can get
4 ourselves on track. So there you go. Thank you.

5 MR. BOWERS: Thank you. Next year,
6 I guess we were going to have a conference, right,
7 but it got canceled? We were going to have a
8 joint conference with insurance inspectors and --

9 CHIEF O'GUIN: Are you talking
10 about 2021?

11 MR. BOWERS: Yes, sir.

12 CHIEF O'GUIN: We're not having it
13 with the insurance inspectors in 2021 since we're
14 going live on our own new system. We are looking,
15 hopefully, forward to 2022.

16 MR. BOWERS: Well, that would be a
17 good time to bring in some of these -- A.O. Smith
18 and say this is how you prepare our boilers for
19 internal inspections. We're talking about
20 training, bringing these people in here and have,
21 actually, experts talking about the proper way to
22 prepare a boiler for internal inspections and
23 stuff like that.

24 CHAIRMAN MORELOCK: That's a great
25 idea.

1 MR. BAUGHMAN: Well, there's
2 boilers that are in the marketplace that are no
3 longer in current manufacture, i.e., let's say
4 AJAX. AJAX is very similar to the Wright boiler
5 in construction. And so there's certain
6 similarities. But the one thing with AJAX is it
7 does have a hand hole, to where the Wright boiler
8 doesn't have a hand hole. So therefore, the only
9 way to inspect is to pull the end plates off, and
10 that gets to be a real pain in the rear, but it
11 can be done.

12 So all that said and done, ASME puts
13 out recommended rules for the care and operation
14 of heating boilers, and it just lists out the
15 information. Periodic inspection is necessary.

16 We know that the boilers need to be
17 inspected. That's a given. And it's a pressure
18 vessel. And it has carbon monoxide issues; that's
19 why we're doing carbon monoxide alarms now.

20 So we've got the fire side of the
21 equation. We've got the pressure vessel side of
22 the equation. We can't just let these things move
23 on because we think that the boiler looks okay.
24 There's no way. You can look at it and it can
25 look beautiful, but you've got to be able to

1 inspect it construction permitting. And there are
2 boilers that you cannot look at inside of the
3 vessel. You can typically look at the burner and
4 the heat transfer side of the vessel itself, which
5 gives you a lot of indications of what's going on
6 on the water side, too.

7 But I just wanted to -- for one, I'm
8 thrilled to be able to have this at least brought
9 up because this has been going on for a long time.
10 And we've had a lot of discussions and I've talked
11 to a lot of inspectors. And there's a lot of
12 inspectors that have pushback on this.

13 No. I don't feel like we have to
14 look at it internally. But when you do have a
15 failure and it comes back on them, yes, there you
16 go.

17 And so I've gotten a lot of input
18 from a lot of different people within this
19 industry to get to the point of feeling confident,
20 getting past my own opinion, but having the others
21 to back up in the industry of how it needs to be
22 addressed on the inside.

23 You, as manufacturers, being here, I
24 would make the assumption that you would say yes,
25 on point, the boilers do need to be inspected

1 where construction is permitting. I don't want to
2 speak for you, but I think it's somewhat of a
3 given that we understand that.

4 It's just getting all of the people
5 that are involved with this inspection industry on
6 the same page on what needs to be done.

7 CHAIRMAN MORELOCK: Thank you.

8 CHIEF O'GUIN: Chairman, Chris,
9 Chief Inspector.

10 I have polled the Board for
11 information regarding internal inspection of
12 low-pressure boilers. I have not got any results
13 back. So hopefully, before the next meeting, I'll
14 have those results.

15 CHAIRMAN MORELOCK: That will be
16 good.

17 CHIEF O'GUIN: And, also, the
18 information for Marty's interpretation, as well,
19 were included in that request.

20 CHAIRMAN MORELOCK: Very good.
21 That's good. Good update. Thank you.

22 MR. BAUGHMAN: Is there any other
23 input? I gave, you know -- I jabbered a lot, but
24 I would love to hear some other input on this. I
25 gave my own point of view and opinion, but I would

1 love to have anybody else's while we've got just a
2 minute.

3 CHAIRMAN MORELOCK: Anybody want to
4 speak to that?

5 (No verbal response.)

6 MR. BAUGHMAN: I hear chirping.

7 CHAIRMAN MORELOCK: Yes.

8 MR. BAUGHMAN: Okay.

9 CHAIRMAN MORELOCK: All right.
10 Okay. Thank you.

11 So that takes us to the Variance
12 Guideline and Checklist Revisions. And I want to
13 thank the boiler unit and I want to thank Chief
14 O'Guin and Jamie and Carlene and a whole host of
15 people who helped us get this document rebuilt to
16 where we can actually edit it.

17 And so, honestly, what you have is
18 all of the board comments that have been put into
19 this checklist and variance. It's a clean copy.

20 In the essence of time and the time
21 of day it is, and I know several other people have
22 got other appointments they've got to meet, I
23 would like for the board members to review this,
24 send me comments. But we will put it on the
25 September agenda as an action item to vote up or

1 down.

2 Any questions or comments about that?

3 (No verbal response.)

4 CHAIRMAN MORELOCK: Okay. I'm
5 assuming that's good.

6 All right. So that takes us to
7 Item 11 on our agenda, which is Announcement of
8 the Next Meeting. Unless the Board decides
9 otherwise, the next regularly scheduled meeting of
10 the Board of Boiler Rules will be 9:00 a.m. on
11 September 15, 2021 here at the Department of
12 Labor.

13 And the last item on the agenda is
14 Item 12, which is adjournment.

15 I want to thank you-all for coming.
16 It's been great to see everybody, and this meeting
17 is adjourned. Thank you.

18

19 END OF THE PROCEEDINGS.

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C E R T I F I C A T E

STATE OF TENNESSEE)
COUNTY OF WILLIAMSON)

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

That the within is a true and accurate
transcript of the proceedings taken before the
Board and the Chief Inspector or the Chief
Inspector's Designee, Tennessee Department of
Labor & Workforce Development, Division of
Workplace Regulations and Compliance, Boiler Unit,
on the 20th day of June, 2021.

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 20th day of August, 2021.



Cassandra M. Beiling

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

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