DEPARTMENT	OF LABOR AN	D WORKFOR	RCE DEVELO	PMENT

DEPOSITION OF BOARD OF BOILER RULES

Taken September 15, 2021



615.221.1089

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2	STATE OF TENNESSEE
3	DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
4	BOARD OF BOILER RULES
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8	QUARTERLY MEETING OF THE
9	STATE OF TENNESSEE
10	BOARD OF BOILER RULES
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12	SEPTEMBER 15, 2021
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23	Lisa M. Finch, LCR #539 2651 Old Greenbrier Pike
24	Greenbrier, TN 37073 (615) 306-3301
25	lisafinch0404@gmail.com

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, TN 37118
6	Harold F. Bowers
7	Insurance Representative Centerville, TN
8	Jeffery Henry, Board Member
9	Boiler Manufacturer Representative ATC-CES, Chattanooga, TN
10	Chris O'Guin, Chief Boiler Inspector
11	Mike Ryan, Assistant Chief Boiler Inspector
12	Thomas Herrod
13	Assistant Commissioner, State of Tennessee
14	Daniel Bailey, Esquire Legal Counsel, State of Tennessee
15	Kenneth Nealy, Board Member
16	Jamie Presson
17	Executive Admin. Assistant, State of Tennessee
18	Michelle Irion Boiler Admin. Staff Supervisor, State of Tennessee
19	Boller Mamili. Stall Supervisor, State of Telliessee
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1	Guest Appearances:
2	COLONIAL CHEMICAL
3	Josh Lofty Robert Horton
4	Jimmy Rigsby
5	A.O. SMITH CORPORATION Greg Reynolds, Global Director of Certification and Reliability
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7	LOCHNIVAR, LLC Jeff Kleiss, Senior Produce Engineer on behalf of A.O. Smith Corporation
8	TENNOVA JEFFERSON MEMORIAL HOSPITAL
9	Douglas Davis Joseph Adams
10	NEVILLE ENGINEERING
11	James Neville
12	INNOVATIVE ENGINEERING SERVICES Ryan Hertter
13	BOISCO TRAINING GROUP
14	Marty Toth
15	VUMC Travis Reasons
16	INDUSTRIAL BOILER AND MECHANICAL
17	Brandon Haynes Micah Lashley
18	Matthew Grove
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1	A-G-E-N-D-A
2	* CALL MEETING TO ORDER
3	* INTRODUCTIONS AND ANNOUNCEMENTS
4	* ADOPTION OF AGENDA
5	* APPROVAL OF THE MARCH 10, 2021 MEETING MINUTES
6	* CHIEF BOILER INSPECTOR'S REPORT
7	* VARIANCE REPORT
8	* OLD BUSINESS
9	None
10	* NEW BUSINESS
11 12	* Item 21-04 - COLONIAL CHEMICAL requests variance for boiler attendant requirement.
13	* Item 21-05 - HYOSUNG requests variance for boiler attendant requirement.
14 15	* Item 21-06 - TENNOVA JEFFERSON MEMORIAL HOSPITAL requests variance for boiler attendant requirement.
16	* Item 21-07 - TENNOVA TURKEY CREEK MEDICAL CENTER requests variance for boiler attendant requirement.
17 18	* Item 21-08 - VANDERBILT WILSON COUNTY HOSPITAL requests variance for boiler attendant requirement.
19	* Item 21-09 - TENNOVA CLEVELAND requests variance for boiler attendant requirement.
20 21	* Item 21-10 - TENNOVA NEWPORT requests variance for boiler attendant requirement
22	* Item 21-11 - Variance Guideline and Checklist Revisions
23	* RULE CASE INTERPRETATIONS
24 25	* BI 21-02 ECS Consulting, LLC, requests an interpretation on the requirements for manually operated remote shutdown switches assigned to low-pressure boilers installed and operated in the State of

Tennessee.

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BC 21-02 - A.O. Smith Corporation requests reconsideration of a Boiler Board Interpretative ruling regarding the clearance requirements for the installation of gas-fired storage water heaters with energy inputs less than 400,000 BTU/h.

OPEN DISCUSSION ITEMS

David Baughman - Tennessee Cod Annotated 68-12-110, Inspection of boilers, (a)(2): "Low pressure boilers shall be inspected both internally and externally biennially where construction will permit."

ANNOUNCEMENT OF NEXT MEETING

The next regularly scheduled meeting of the Board of Boiler Rules will be held on DECEMBER 15, 2021, 9:00 AM, at the State of Tennessee Department of Labor and Workforce Development building located at 220 French Landing Drive, Nashville, Tennessee.

ADJOURNMENT

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CHAIRMAN MORELOCK: Calling the meeting to order. I want to welcome everybody to the September Tennessee Board Meeting. Let me go over just a few things here, as I call the meeting to order; the safety item is, if there's an emergency in the building, the security services will come and take us to a safe place in the building, if need be, and with the rain today, I don't know that we would exit the building, but if we did, we would exit on the Rosa Parks side of the building, so.

I would ask everyone to silence your cell phones out of respect for the presenters and the conversations, so if you have not done that, please do. And so, as you can tell, the masks are not required in the Pearl Room, so just be mindful of where masks are needed or where would we need to wear masks? Anywhere? We're all good for the whole building, all right.

Okay, so -

MR. BAILEY: I would highly suggest that we do wear one.

22 CHAIRMAN MORELOCK: Do what?

MR. BAILEY: I said, I would highly

24 | suggest that we do wear one.

25 CHAIRMAN MORELOCK: Okay. So it's

1	optional.
2	MR. BAILEY: It's optional.
3	CHAIRMAN MORELOCK: So let me go on down
4	to "Introductions and Announcements," and so what I'm
5	going to do is start with Court reporter, Lisa Finch,
6	and we'll go around and get the Board Members to
7	introduce themselves, the State, and then we'll let all
8	the visitors introduce themselves. So, Lisa, we'll
9	start with you.
10	THE REPORTER: Lisa Finch, with Briggs &
11	Associates.
12	MR. HENRY: Jeffery Henry, Board Member,
13	Chattanooga, Tennessee
14	MR. MORELOCK: Brian Morelock, Board
15	Member.
16	MR. BOWERS: Harold Bowers, Board
17	Member.
18	MR. BAUGHMAN: David Baughman, Board
19	Member.
20	MR. BAILEY: Dan Bailey, Legal Counsel.
21	MR. HERROD: Thomas Herrod, Assistant
22	Commissioner for WRC.
23	CHIEF O'GUIN: Chris O'Guin, Chief
24	Inspector.
25	MR. RYAN: Mike Ryan, Assistant Chief.

1	MS. IRION: Michelle Irion, Board
2	Secretary.
3	MR. NEALY: Kenneth Nealy, Assistant
4	administrator WRC.
5	MR. LOFTY: Josh Lofty, Plant Manager,
6	Colonial Chemicals, South Pittsburg, Tennessee.
7	MR. RIGSBY: Jimmy Rigsby, Maintenance
8	Manager, Colonial Chemical, Chattanooga.
9	MR. HAYNES: Brandon Haynes, I'm an
10	Engineer at the Industrial Boiler Mechanical.
11	MR. HORTON: Bob Horton, Project
12	Engineer, Colonial Chemical.
13	MR. HERTTER: Ryan Hertter with
14	Innovative Engineering Services.
15	MR. GROVE: Matthew Grove, Legislative
16	Liaison, Department of Labor and Workforce Development.
17	MR. LASHLEY: Micah Lashley, Chubb
18	Insurance.
19	MR. TOTH: Marty Toth, Boisco Training
20	Group and ECS Consulting.
21	MR. REASONS: Travis Reasons, Director
22	of Facilities, Vanderbilt Wilson County Hospital.
23	MR. KLEISS: Jeff Kleiss with Lockinvar
24	owned by A.O. Smith.
25	MR. REYNOLDS: I'm Greg Reynolds with

A. O. Smith. 1 2 MR. NEVILLE: James Neville, Neville 3 Engineering. 4 MR. BLAZER: Gary Blazer (phonetic) with 5 (unintelligible/inaudible). 6 MR. DAVIS: Doug Davis, Director of 7 Facilities, Tennova Health Cleveland. 8 MS. PRESSON: Jamie Presson, Executive 9 Admin Assistant, State of Tennessee. 10 CHAIRMAN MORELOCK: Thank you all. Are 11 there any other announcements? 12 Hello, my name is Harold MR. BOWERS: 13 Bowers, said in the introduction, I've had the 14 opportunity to serve on this Board through two governors 15 and I really appreciate it. I have recently retired 16 from (unintelligible) Global Insurance Company, and part 17 of the rule on the Board is you really need to be 18 working for an insurance company in some capacity, so I 19 decided, I have no plans of doing any of that right now, 2.0 so I'm going to kind of step down from my position on 21 the Board. I've really enjoyed working with all the 2.2 Board Members and the State, Chris and the rest of the 23 guys at the Board (unintelligible), and I really 2.4 appreciate everybody's work and I appreciate having 25 served the citizens of State of Tennessee and the great

opportunity. I've been in this business for almost 44 1 2 years now, and, you know, it's been a really, really 3 interesting, fantastic career and I just, I really love 4 it and people say, well, I got to the point where, you 5 know, at 68, 69, climbing ladders and climbing on top of 6 boilers, got a little tedious, so but I've had a great 7 opportunity, worked all over the Southeast, you know, 8 besides Tennessee, and some of big accounts, like Disney 9 Universal, you know, just the local area, Vanderbilt, 10 Nissan - Nissan, when we had coal burners. It's been a 11 fantastic career, it's been fantastic, for young people 12 getting into it, it's a great career. But I want to 13 appreciate the Board and having the opportunity to 14 serve, working with the great guys I got to work with. 15 MR. BAUGHMAN: Here, here. 16 (Applause) 17 MR. BOWERS: So what I'll do, today will 18 be my last official meeting, unless the Board -- I will 19 come back in December as a quest, if I'm welcome? 2.0 CHAIRMAN MORELOCK: You will be. 21 MR. BOWERS: If you need me to serve in 22 the last capacity in December, if the Governor hasn't 23 vetted a new one, I'm glad, but probably today will be 2.4 my last official meeting. 25 MR. MORELOCK: Harold, we certainly

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     thank you for your service and you will be missed.
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     Harold has indicated, we are going to have a celebration
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     for his term here on the Board at the December meeting,
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     so I hope everybody will be able to come and enjoy that
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     time of fellowship with Harold and the Board, and so
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     we're looking forward to that, thank you.
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                     Okay. Any other announcements?
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     right.
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                     Next item is adoption of the agenda,
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     hope everybody's got a copy of that. Do I have a motion
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     to accept the agenda?
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                 MR. BAUGHMAN:
                                 So moved.
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                 MR. HENRY:
                             Second.
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                 CHAIRMAN MORELOCK: Okay, got a motion to
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     second.
              Any discussion? Call to question, all in favor
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     say "aye."
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                 (Affirmative response.)
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                 CHAIRMAN MORELOCK:
                                     Opposed?
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                 (No verbal response.)
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                 CHAIRMAN MORELOCK: Abstentions, not voting?
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                 (No verbal response.)
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                 CHAIRMAN MORELOCK: We have an approved
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              That will take us on to the approval of the
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     June 2021 meeting minutes, hope you've had the
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     opportunity to read through those. And do I have a
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1	motion to accept the June 21 meeting minutes.
2	MR. HENRY: So moved.
3	CHAIRMAN MORELOCK: Got a motion. Second?
4	MR. BAUGHMAN: Second.
5	CHAIRMAN MORELOCK: All right, any
6	corrections, additions, clarifications?
7	(No verbal response).
8	CHAIRMAN MORELOCK: Hearing none. Call to
9	question, all in favor, say "aye."
10	(Affirmative response.)
11	CHAIRMAN MORELOCK: Opposed?
12	(No verbal response.)
13	CHAIRMAN MORELOCK: Abstentions, not voting?
14	(No verbal response.)
15	CHAIRMAN MORELOCK: We have approved minutes
16	for June 2021 meeting. Before I go to the well no
17	let's go on to the Chief Boiler Inspector's report.
18	CHIEF O'GUIN: Chris O'Guin, Chief
19	Inspector. Inspections from July 1, 2021 through
20	September 15, 2021, the State had 2,925 inspections,
21	insurance had 5,109. Delinquency totals with the rates
22	in the far right column, the State has 537 vessels
23	delinquent with a 0.7 percent delinquency rate.
24	Insurance has 1,521 with a 2.1 percent delinquent rate,
25	that's total of 2,058 delinquency vessels at 2.8

1 percent. High pressure vessel delinquent totals, State 2 has 49 delinquent, bring us to a 12 percent delinquent 3 Insurance has 301 with a 20-percent delinquent 4 rate, totaling 350 vessels delinquent, 18 percent 5 overall delinquent. I will turn the variance report 6 over to Assistant Chief Mike Ryan. 7 MR. RYAN: Mike Ryan, Assistant Chief. 8 last quarter we have 81 active variances out there. We 9 have seven passed inspection. We have 11 that are not 10 ready to train or equipment needs. 11 CHAIRMAN MORELOCK: Thank you gentlemen for 12 those reports. 13 Mike, I've got a question; we MR. BAUGHMAN: 14 had previously how many -- we've got 81 active now, 15 that's reduced from, what was it previously? 16 nearly a hundred and something before? 17 MR. RYAN: Just a second. 18 MR. BAUGHMAN: Thank you for taking the 19 time. 2.0 MR. RYAN: I'm going to have to come back on 21 that. 2.2 That's fine, I was just more MR. BAUGHMAN: 23 curious than anything about the reduction in active 2.4 variances. Yes, getting back is fine, thank you. 25 CHIEF O'GUIN: I believe it was 70 something

1 last meeting, but I'll go back and check it. 2 MR. BAUGHMAN: Okay, so maybe it increased 3 then? 4 CHIEF O'GUIN: It's increased a little bit. 5 MR. BAUGHMAN: Thank you. 6 CHIEF O'GUIN: And those numbers, active 7 variance numbers are not going to, you won't see it 8 fluctuate a whole lot because some of these inspections 9 performed in the past is going to be reinspections, it 10 actually won't come to the Board, so they won't be new. 11 CHAIRMAN MORELOCK: Thank you, Chief O'Guin 12 for that clarification. Any other questions about the 13 variance report or the Chief's report? 14 (No verbal response.) 15 MS. PRESSON: This is Jamie, I pulled up 16 Chris's June report to you all and there were 7 tea 5 17 active at that time. I forwarded to you. 18 MR. BAUGHMAN: Thank you Jamie thank you 19 Chief, Assistant Chief. 2.0 CHAIRMAN MORELOCK: All right, that takes us 21 to old business, to which we have none. So that take us 2.2 now to new business and what I want to, what I stopped 23 from saying, I'm going to say now, is we have a very 2.4 full agenda and it's going to take all day to get 25 through this agenda, so certainly present your items and we'll certainly ask questions and vet those, but out of respect for all the presenters, we've got seven variance manuals, and if we take a 45 minutes for those, that's going to fill up our day plus all the others, so just, my request is be mindful of the time. I certainly want to vet these manuals completely. I want all your comments to be made, and so just bear that in mind as we go through these manuals.

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conflicts.

As these items are brought up, there's a public forum table that you'll see right here, and if you need more than couple of chairs, we've got extra chairs over here so everybody can get around the table to present these items, and so we'll present them and discuss them and we'll vote, so I just wanted to make you aware of that.

So, our first item is item 21-04

Colonial Chemical requests a variance for boiler

attendant requirement. While you all are getting

prepare, please introduce yourself and then present your

item. And are there any conflicts of the Board Members?

(No verbal response.)

CHAIRMAN MORELOCK: All right. No -- no

MR. HORTON: Bob Horton, I'm Project Engineer of the Boiler Installation for Colonial

Chemical. I don't know the format. If you have questions to ask, otherwise I can present a quick summary on what we are and what we're all about, if that's okay? We're a small speciality chemical plant, batch operations, probably 25 physical reactors. The main people we'll talk about today are chemical operators in the plant, maintenance technicians in the plant. We have a maintenance manager. I'll say that in the manual you're going to see a reference to "maintenance manager," "maintenance supervisor," those are one in the same, we'll correct those to "maintenance manager," and our shift supervisors.

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Operators, we run about twelve operators per shift. These operators run multiple pieces of equipment at the time. Those are our key positions.

Operators are either A, B, C level qualification.

Maintenance Techs are either A or B, you can see reference to those in job descriptions. What we were trying to do is get a variance for remote monitoring, so the first position to talk about is the remote monitor.

We're proposing that a group of our chemical operators be, take the position as the remote monitors. The boiler attendant, we'll get into a little bit more detail on days when our maintenance crew is there, be our maintenance men. In the book you can see there's a

schedule, we staff maintenance primarily on days and on weekends, so if there's any work to be done on the boilers, it's done by maintenance, okay, if they're not available and it needs to be done, we hold down, there's no one else qualified that's built into our model, we set that down some.

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Also, from a boiler attendant standpoint, when the maintenance techs are not on site, our supervisor will take on those responsibilities; if he's unavailable, he'll designate that to the A Operator, and our A Operators are highly qualified operators.

If you skip to the back of the book, about three from the back, there's a layout of our plan. And if you can, it's this page, and if you look at it, there's a dotted box and in that box are reactors, that area is all the time staffed by at least a group of five operators. It's in our standard operating procedures that during the break shift change, lunches, there's always someone assigned there, so what we're proposing is to put our emergency shutdown box, the manual and the instructions at the operator's desk in that box and it's notated like "remote boiler panel," and just on the upper side to the, it's south on the drawing, but you see where our boiler room is, boiler room is brand new,

boiler room that we constructed, boilers are being installed, the steel building has been delayed like many things, so we'll construct that, and it's adjacent, tied to our maintenance building.

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So our goal is to hardwire the alarms off the boilers to the alarm panel that'll be within that work area, that's staffed all the time by at least one, a group of five normally, chemical operators that are operating different vessels, covering for each other at breaks, shift changes, lunches, it's manned the whole time per our SOP's.

Any other details you want me to flesh out and go through? Our maintenance men at the beginning of each shift will do the check on the alarm system, radio check. I've got in here a list of people that he will notify of this alarm, a remote monitor so the primary is the maintenance tech, then do a radio check. We'll also trigger an alarm to check that the panel is activated at the beginning of the shift on days. We're twelve-hour shifts, rotating shifts, 24/7, we never shut down except for basically maintenance and inspection on the boilers, still do the check on that through the supervisor on second shift and our maintenance tech on the dayshift that I can (unintelligible) as boiler attendants.

1	THE COURT: Do I have a motion to discuss?
2	MR. BOWERS: Motion to discuss.
3	CHAIRMAN MORELOCK: Motion to second?
4	MR. HENRY: Second.
5	CHAIRMAN MORELOCK: All right. What
6	questions does the Board have for this variance?
7	MR. BOWERS: I noticed these boilers are
8	brand new boilers, how long has this plant been in
9	operation?
10	MR. HORTON: '95, since '95.
11	MR. BOWERS: Have you had boilers before?
12	MR. HORTON: Yes.
13	THE COURT: So these boilers are just
14	replacing the other boilers?
15	MR. HORTON: We have got a hundred.
16	(Court reporter having trouble hearing, asked
17	Presenter to speak up.)
18	MR. HORTON: Okay, we've got two boilers,
19	one we own, we'll move on, we got a rental boiler, we're
20	right at capacity on those, so as soon as we install our
21	new boilers, those will be taken out of service. We
22	needed the real estate, from a safety standpoint we want
23	to move them, so those will be removed from service.
24	MR. BOWERS: Presently you're going by the
25	20-minute rule? These are high-pressure boilers, right?

MR. HORTON: That's correct.

CHAIRMAN MORELOCK: Presently going by the

3 | 20-minute rule, correct?

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MR. HORTON: Yes, sir.

MR. BOWERS: So what concerns me is when you get a variance situation, you say well, we have chemical operator/boiler attendant, training is very important, then what is your priority? Was your priority the plant chemical operation? I worked at a chemical plant 23 years, sometimes it's taking priorities. I got a line for the boiler. I got a line for the plant. If I don't take care of the plant, boiler (unintelligible) it. If you don't take care of the boiler, the plant blows up. There's some certainty on training and setting priorities, to me, the boiler operator part is higher than the operator part because you can blow the plant up if the boiler operator is not properly trained.

MR. HORTON: Jimmy, can you comment on what we do for maintenance guys in training?

MR. RIGSBY: Jimmy Rigsby. We sent our maintenance techs, we send them to Ware University through the Boiler Training. Any other, if we get beyond -- our maintenance techs are multi-craft, so they do everything in the plant, and they rank on their knowledge who can do what, but if it's beyond our

control, as of this time, we're using Ware as our technicians, Ware works on the boiler for us. But the remote monitoring will be the, will be the E-Stop, they'll shut it down, it'll automatically shut down and they will not do anything with the boiler until the maintenance tech is on site.

MR. BOWERS: Harold Bowers. Anybody who has the responsibility of that boiler you're saying is going to be properly trained?

MR. RIGSBY: Yes, sir.

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MR. BOWERS: There was a situation years ago, look up in the Internet, Dana Corporation up in Paris, Tennessee where the main boiler operator would have to be out, untrained operators with extra results, half the boiler went in the parking lot, half the boiler went through the plant, look it up on the Internet and see, it's very important whoever has that responsibility knows to have a bomb in that plant that could go off at any time, that that is very important that he has a responsibility to know that responsibility, and the guy who has that responsibility knows how important it is.

CHAIRMAN MORELOCK: As far as your training goes, what you just stated to us, is that in the manual, how the training is done and how often it's done?

MR. RIGSBY: No, sir, I don't think.

MR. HORTON: Chris Smith, our Product
Technologist has been assigned the responsibility to do
all the training maintaining the record-keeping,
referencing the manual. And one thing I did pick up on,
I'll volunteer --

MR. BAILEY:

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(Court Reporter asked the Presenter to speak up.)

Please use the microphone.

MR. HORTON: Chris Smith is our Product Technologist, he does all our operator training. He'll pick up responsibilities during the training of our remote monitors. I picked up on in your previous speed notes, we will probably do some enhanced training on some boiler awareness for the supervisor or the A Operator that's assigned to it when the mechanics aren't there, when the maintenance men mechanics aren't there and reference somewhere in one of the meetings, I quess someone ran for a fire extinguisher rather than doing what they should have with the boiler, so I volunteer, we'll do some enhanced training on the supervisor and A Operator that will be monitoring it twelve hours a day. They will not be the ones that will repair it, start it up or anything like that, but they'll have increased awareness of what they might be facing when they're placed in the boiler room.

CHAIRMAN MORELOCK: So capture that in your

manual, because as we read the manual, we've not seen your process, we've not seen how it works. So as far as training, how do you train new hires? Is there a manual annual refresher training? Is there a training log? I couldn't find a training log in the manual where the training's been documented. And just, you want to detail your training program so it's clear how that's being done for the remote, as well as is boiler attendant.

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MR. HORTON: We've got a reference on page 9, training.

CHAIRMAN MORELOCK: Yes, I was looking on page seven. So again, refresher training, you know, is that annually? Is it, you know, you need to put a frequency in there for your production technologist.

MR. LOFTY: I'm Josh Lofty, Plant Manager at Colonial. That's something we have edited in here that we want to change on that is create a quarterly, have it quarterly at least starting out to get everybody because this is, you know, very important, like James said, it's very important, so we know that. As management group of Colonial, right now I've been there 18 years, three years as Plant Manager, and we've always pushed, you know, production is always, as you said, you got to take your priorities, if something's unsafe or we don't know

how to run something as a management group, we shut it down, we don't accept any kind of loss of life or equipment. If it's not safe, we're not going to run it, we've shut down shifts multiple times for multiple reasons for safely, so.

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MR. BOWERS: It's pretty vague in here, it says "training," you know, we'd like to have more specific, what is the training? How often do you repeat training? You might be gone tomorrow as plant manager to a different plant. Well he talked about training, what kind of training, what kind of training do we do, we need specifics on what the training talks about and how often the training when the new hire gets hired and you do an annually refresher training.

CHAIRMAN MORELOCK: Other questions, comments? While you're thinking, your manual needs to have a page that's either a bright color or a bright colored tab, has your emergency procedures. And you do have procedures in here, but you want to make sure that page, if you have an emergency, they immediately see that emergency page, they don't have to go flipping for it, so you want to be able to find it quickly.

And then your tests, if you look on the checklist, item 36, you need to make sure your manual includes a test of a system, the low-water column and

remote monitoring, I just -- I didn't see that clearly shown in the various sections of your manual as to what that test is going to look like and how you will log that test as well.

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MR. HAYNES: I'm Brandon Haynes with Industrial Boiler. So there is, in the duties and responsibilities, we (unintelligible) want to tie it to setting off one alarm, but -- in tab number three, I believe, that would be page seven, we do have remote station personnel duties. We do have in there to perform a daily, a daily check of the alarm, to initiate an alarm on the boiler and verify that it does alarm at the remote panel. I did not designate which alarm primarily we'd want to do a low-water cutoff (inaudible/trailed off) initiate it that way. So we can update that to make that a specific alarm.

CHAIRMAN MORELOCK: Well, it's your manual, it's not ours, so you can make it as specific or you could list what the test would be, not paint yourself in the corner of only doing that one specific test. The important part is the testing of the system.

MR. HAYNES: Yes, sir.

CHAIRMAN MORELOCK: Other questions?

MR. HENRY: Jeff Henry. Just curiosity,

25 | what is your products at this plant?

1 MR. RIGSBY: I didn't -- I didn't hear you, 2 I'm sorry. 3 MR. HENRY: What products do you produce at 4 this plant? 5 MR. RIGSBY: We have a lot of different kind 6 of chemicals that go into a basic solution whose 7 specialty chemicals were in oil fields, it's kind of 8 multi-base, it's different kind of --9 MR. HORTON: Over 400 different products, 10 probably just as many customers, the largest customers, 11 a small percent of that, but probably six or seven 12 different industrial sectors, personal care, household 13 cleaning, oil field drilling, machine oils. 14 MR. HENRY: Okay, so nothing highly toxic or 15 explosive? 16 MR. HORTON: No. 17 Then the only other thing is, as MR. HENRY: 18 you're going through your manual to edit, you allude to 19 figures in there, but unless I missed something, the 2.0 figures themselves are not identified. You can figure 21 out which one is which, but it would be nice to have a 22 figure number on the page so there's no confusion. 23 MR. HAYNES: Could you say that again, sir? 24 MR. HENRY: In the checklist, you reference 25 figures, but again, unless I missed them on the figures

themselves, they're not listed for the figures, if we 1 2 just indicate which figure one, two, three, four are, 3 that would be helpful to avoid any confusion. 4 obvious once you get through it, but. 5 MR. HAYNES: Okay. 6 CHAIRMAN MORELOCK: And so, in Appendix G, 7 do you specifically call out the manual duties as far as 8 boiler attendant or remote monitoring station in the job 9 descriptions that you have in Appendix G? 10 These currently right now are MR. HAYNES: 11 their current qualifications and duties, so the answer 12 is no as of right now. 13 CHAIRMAN MORELOCK: Does this list of job 14 duties include the boiler attendant? It stated 15 previously in the manual, but not on that Appendix G or 16 F. 17 MR. HORTON: The only thing it does point out for our maintenance guy, boiler responsibilities, 18 19 that's referenced on the new job responsibilities. 2.0 CHAIRMAN MORELOCK: So chemical operator A, 21 page 25, where, where is his duties to be the remote 2.2 monitor? 23 So they're not specifically MR. HAYNES: 24 listed here in Appendix G, but they are in previous 25

parts of the manual, so that is their current duties as

1 stands today with the manual not being approved. It can 2 certainly be added. 3 CHAIRMAN MORELOCK: Yes, because, I mean, 4 the desire here is to get you an approved manual. 5 MR. HORTON: Yes, sir. 6 CHAIRMAN MORELOCK: So you can show all 7 (unintelligible) remote monitor as well as boiler 8 attendant. What other questions? 9 MR. BAUGHMAN: David Baughman. First of 10 all, thanks again for everybody being here presenting 11 this. On page three, third paragraph says the "Colonial 12 is building a new boiler room." Are the old boilers 13 still in service presently today? 14 MR. HORTON: We're still building, the 15 boilers aren't functioning at the new ones, in progress. 16 MR. BAUGHMAN: Gotcha. So boilers are not 17 presently installed, but they're going to be? 18 MR. HORTON: I'll clarify, they're on site, 19 we're piping them up, piping as well as you could with 2.0 boundaries of the steel building, it's been delayed and 21 we're actually supposed to get that steel supposedly 2.2 about a week, we'll continue on construction. 23 outside pipe ranges for our utilities and services to it 2.4 in a steel building, and steel buildings are hard to 25 get.

MR. BAUGHMAN: Sure. So we've got to not only put the boilers in, but do the wiring to the remote station, do the training, do everything to be ready for inspection?

MR. HORTON: Yes.

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MR. BAUGHMAN: So, on page six it shows the schedule and the number, the days Monday through Sunday, the number of technicians for each day, and there's -so the plant operates 24/7, the boilers don't shut off in the evenings, they run through the shift. Saturday and Sunday, we've got one person listed as a technician, and I've heard that if the boilers go down, and it's mentioned in here, "Colonial recognizes, if the boilers go down, the delay could negatively impact production, potential delay troubleshooting restarting the boiler does not present any safety issues." I understand that to a degree until somebody starts hollering for production, but I take it as it's written that that's the way it's being intended. But how is the remote station continuously monitored if we only have one person available Saturdays and Sundays during the hours of 7:30 and 4 o'clock?

MR. HORTON: Most stations are being monitored by a chemical operator, which again, this would be for private one time then that defined area,

and this schedule is for the maintenance technicians, so 1 2 on weekends we'll have one maintenance technician. 3 remote station is being monitored by that same group 4 24/7, runs through the holiday, we only shut down for 5 further inspection or repair. 6 MR. BAUGHMAN: Is it required to have ear 7 protection? 8 MR. HORTON: Not at this time. 9 MR. BAUGHMAN: Not at this time? 10 MR. HORTON: We'll have to look at that. 11 lot of the maintenance guys will be passing through this 12 building to get into the maintenance building because 13 we're tying it right on to it, we have talked about what 14 to do (trailed off). 15 MR. BAUGHMAN: I was interested to know if 16 the chemical operators have to wear hearing protection 17 for their job requirements? 18 MR. HORTON: Depends on the area. We've 19 looked at that and we don't have any required at the 2.0 plant now, right? 21 MR. RIGSBY: No, we've actually had TOSHA 22 out at the plant and did a sound study, and we are 23 (unintelligible) in on getting to the limit where we 2.4 will have to require hearing protection. 25 MR. HORTON: And if we could, we will look

at hearing protection.

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MR. BAUGHMAN: Very good. So, on page seven, under "normal duties," which again was under Appendix G, but I'm looking at A, "normal duties," at the beginning of each shift, the maintenance tech responsible for the boiler and the chemical operator, so to make contact, if there's not a maintenance tech responsible for the boiler during the beginning of the shift, and I take it, what are the shifts? Are there just two shifts?

MR. HORTON: Two shifts, yes. Eight to eight. Maintenance guy comes in early and then on the next shift it would be a supervisor that would fill in as the boiler attendant.

MR. HAYNES: I think I can answer your question what you're getting at. If you go to page five, Colonial's goal here is, so we recognize that they do not staff a nightshift maintenance technician, I think that's what you're getting at. So, on page five, second paragraph, what they'd like to do is to qualify the job title Production Shift Supervisor, like to qualify him as the Boiler Attendant, just as the maintenance technician would be, that production shift supervisor is a 24/7 manned -- manned position.

MR. BAUGHMAN: Excuse me, where is he,

manned at, where is his position located?

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MR. HAYNES: His duty would be primarily on the production floor, which is near that remote operating station, but as we state in there, he would have the four-hour check duties. It's not a large plant, he would always be within very close distance to be able to do the four-hour round, so their goal is to qualify him just as the maintenance technician, boiler attendant. Okay.

MR. HORTON: Let me clarify just to help a little bit. We're a very manual plant. We have no DCS control. We're just entering the PLC world, a lot of it is very, very manual. The supervisors are out and about on the floor most of the time. They don't sit in a cozy office, he's got a desk right out on the floor. We're exposed (unintelligible) element most of the time, under the roof, no walls. He's out there working with the guys. Josh can elaborate on the rounds. He has to keep up with what's going on within each reactor during the shift.

MR. LOFTY: Supervisors are required to, at the end of the shift he makes four different rounds throughout the plant and gets updates on each batch that's running, so he's constantly in this area where the panel is going to be and in other areas at the same

time, which is fine (inaudible).

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MR. BAUGHMAN: You're good. Is this described in the manual?

MR. HAYNES: It is on page five that the production shift supervisor -- that the production shift supervisor would have the boiler attendant.

MR. BAUGHMAN: Is it listed under any job descriptions for the production shift supervisor?

MR. HAYNES: It is on the work chart, but as of right now, that's the only place that we noted that that dual qualification or that handoff on certain shifts, so kind of an odd request.

MR. BAUGHMAN: And it needs to be just to identified for protocol so that all these little things are identified so that everybody knows whose responsibility and so forth does what. Thank you for that description very much.

So on page eight, number four -- well, actually let's go to number three, "on receipt of an alarm, the maintenance technician should contact the chemical operator." I'm not thrilled with "should." How about "shall?" Just my thoughts on it. And then, number four, I just had a question, "When the alarm condition is cleared, maintenance supervisor or tech should contact chemical operator," so forth, so on, "and

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MR. BAILEY: Chairman, if I could, I should have said this at the beginning of the meeting; please keep in mind that this is being transcribed, so always speak into the microphone so she can hear you clearly. Some of you guys aren't doing it either. And do not talk over each other, she can only record one person at a time, so be mindful of that, everybody that presents, okay, thank you.

MR. HORTON: The emergency panel will be located right over the production operator's desk, which that's referenced in the operator's station.

MR. BAUGHMAN: There's nowhere else that I saw operator's station referenced, so hence for my need for clarification on "operator's station" versus "remote station." I would suggest that we make it all the way through being "remote station"

CHAIRMAN MORELOCK: So on that same page, if you're going to give the chemical operator ten minutes to acknowledge, is that going to cause you any process problems or boiler concerns for letting it go ten

minutes?

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MR. LOFTY: Process-wise within our batch is we'll accept any downtime within that ten minutes that happens or what happens when the batch is up. Most time if we lose steam, batch is going to cool down and there won't be in quality issues or safety issues with that and we fully accept that.

CHAIRMAN MORELOCK: Any other questions?

MR. HORTON: We use steam to basically heat reactors, and I thought it through, there's other applications where we lost steam here, you're using backup things like that, there may be issues. There are no issues there, just the loss of steam.

CHAIRMAN MORELOCK: Thank you. Any other questions or comments?

MR. BAUGHMAN: Yes, I'll continue.

CHAIRMAN MORELOCK: Okay.

MR. BAUGHMAN: So, on page ten, the statement is made kind of broad, it's one through eight on the attendant procedures, again, it's particular number four where the "maintenance tech shall not leave company property during the shift without first reporting to the manager. In the event the maintenance technician must leave, the maintenance manager shall assign duties to another technician, and the maintenance

manager shall contact the chemical operator to inform of such changes." It gets back to referencing the protocol and they're not being a -- who those personnel are, in other words, we went from maintenance tech to a maintenance manager assigning duties to another technician, but we don't have another technician available on say second shift during Saturday and Sunday, so I just need all of that tied in as far as the actual protocol because the maintenance technician attendant procedures just aren't quite clear to me in that regard.

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How familiar is the production person with the boilers? I know we got training coming up, so that's kind of a tough thing to ask, but I just wanting to, how familiar are we with the boilers and operations?

MR. LOFTY: The operation staff, the chemical operators, they know of the boiler, they know we have some training on it and they know how to reset the boiler and that's all they do. If they don't get it reset the first time, they don't do anything else after that, they contact maintenance after that.

MR. BAUGHMAN: Perfect. So these boilers have not been inspected yet, so accordingly on page fourteen we've got Tennessee numbers that are to be determined. And then, under Appendix B, the equipment

description, so the alarm, the boiler goes off on alarm 1 2 on the fire (unintelligible) YV 110, and those alarms 3 are what's being annunciated out to the remote station, 4 is that correct? 5 MR. HAYNES: Yes, that's correct. It's just 6 a general alarm, I mean, I think that's pretty normal, 7 general alarm on the remote panel, one for each, one set 8 of lights for each boiler. 9 MR. BAUGHMAN: So that's tying into the mod 10 bust on this program or just enunciating the alarm when 11 that programmer goes into alarm, it then --12 MR. HAYNES: Given the short distance, we've 13 not planned to use mod bust. We were actually going to 14 put it in (trailed off). 15 MR. BAUGHMAN: You said it's going to be put 16 into what, I'm sorry? 17 MR. HAYNES: We can put it into the safety 18 circuit on that. It's a very short distance. 19 I can run hardwire on for each MR. HORTON: 2.0 We're not going to share any conduit. 21 MR. BAUGHMAN: So some alarms don't 22 necessarily enunciate. I'm getting at the high limit 23 manual reset, the high gas switch and so forth doesn't 2.4 throw an alarm, but it shuts the boiler off into a mode 25 that has to be manually reset, so are those being tied

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          And my next question is, are you tying in both the
     in?
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     primary and secondary low-waters because those
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     themselves again will get hardwired and not run through
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     the programming itself?
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                 MR. HAYNES:
                              It was our intention right now
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     just to have the manual reset alarms that are in the
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     safety circuit, if we need to expand that, then
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     obviously we will, but the goal was to get anything that
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     shuts the boiler down in that fierized safety circuit to
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     a enunciate remotely.
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                 MR. BAUGHMAN:
                                 So along those lines, the low
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     waters don't enunciate through the YV 110?
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                               Right, it's automatic
                 MR. HAYNES:
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     recycling.
                 MR. BAUGHMAN: One would be manual reset.
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     The primary is recycling, both of those have alarms in
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     them, but they don't alarm back through the YV 110
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     programmer, so being that that's one of our main things.
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                 MR. HORTON:
                               Sure.
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                 MR. BAUGHMAN: And in your test, on page 36,
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     it describes the water column that's part of it too.
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                              Well that would catch it.
                 MR. HAYNES:
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                 MR. BAUGHMAN:
                                 It would catch the primary,
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     yes.
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                 MR. HAYNES:
                               The panel wouldn't pass the
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test, right, so we couldn't use that panel, right?

MR. BAUGHMAN: That is correct. Well that's what I'm getting at was wired into it, because presently you're just saying what's wired was in YV 110 and the others are not, so that's why I was wanting to make sure that those would get hardwired in.

MR. HAYNES: Okay.

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CHIEF O'GUIN: Oh, I see where the maintenance supervisor or the shift supervisor will fill the role of boiler attendant from 4:00 p.m. to 8:00 a.m. or a Level A chemical operator, I didn't hear y'all cover earlier where a Level A chemical operator will be trained as a boiler attendant. I see where they were trained as a boiler monitor, but not attendant.

MR. HORTON: What page?

CHIEF O'GUIN: Well I'm referencing page five, you talked about the Level A Chemical Operator. Page ten, Operation Shift Supervisor and the designated Level A chemical operator will fill this role from 4:00 p.m. to 8:00 a.m. seven days a week, but I don't see anywhere where you train a Level A Chemical Operator and a Boiler Attendant.

MR. HORTON: You're right, I picked up on that when I read one of your previous reports, and when I started this, I prefaced that we would have to provide

some additional training for our supervisor and our level An operator, we'll do that.

CHIEF O'GUIN: I just wanted to make sure

that was covered. Thanks Chairman.

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will say this, in your organizational chart, it's real helpful to add the remote station attendant, the boiler attendant titles so when somebody looks at your work chart they'll say they can see real quickly who is attending the boilers and who's going to be responsible for the monitoring, that'll help as well.

MR. BAUGHMAN: Dave Baughman again. So we've got E-Stops that are in the boiler room itself and I don't see offhand on whether it's, looks like it's the site plan layout, boiler room and the remote operator station, but I take it that we've got E-Stops at each point of egress?

MR. HORTON: We will.

MR. BAUGHMAN: That E-Stop will shut off both boilers with one E-Stop?

MR. HAYNES: Yes, I know the requirement in the room is one E-Stop for both boilers, yes, but if we need to note the points of egress on our plan, we'll do that.

MR. BAUGHMAN: Thank you.

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                 CHAIRMAN MORELOCK: On figure two it would
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     also be good to have a distance from the remote panel to
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     the boiler room.
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                               I'll put it on there to
                 MR. HORTON:
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     probably 150 feet. That box is about 50 by a hundred,
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     and then -- a hundred, 150 feet out.
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                 CHAIRMAN MORELOCK:
                                      Thank you.
                 MR. BOWERS: Harold Bowers. I would also
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     like to add, I didn't see it on the drawing, but where
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     Mr. Ryan, (unintelligible) that requires the
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     (unintelligible) good nature of (inaudible.)
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                 CHAIRMAN MORELOCK: Any other questions or
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     comments?
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            (No verbal response.)
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                 CHAIRMAN MORELOCK: All right. Hearing
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     none -- oh, go ahead.
17
                              Mr. Bowers, does the carbon
                 MR. HAYNES:
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     monoxide detection, does that need to be noted in this
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     manual?
              I mean, I know it's going to be inspected.
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                              (Nodded affirmative).
                 MR. BOWERS:
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                 MR. HAYNES:
                               Okay.
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                 CHAIRMAN MORELOCK: Do I have a motion for
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     this proposed variance?
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                 MR. BOWERS:
                               I make a motion that it's
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     continued on the changes we have to make, addressing the
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changes of the training needs to be added, plus the yellow page, then whenever -- you think that's too many changes that you have to make or do they need to come back?

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CHAIRMAN MORELOCK: So, so, you know, if a variance is approved on any of these manuals today, just for information, all these approvals will be contingent on the manuals being revised based on comments during this meeting and a successful site visit from the Boiler Unit, so, you know, if you get an approved variance, it's contingent on those two things happening.

MR. BOWERS: I make a motion in that all these changes have to be made, so when the State Inspector shows up, he's going to look at the manual for those, if those changes aren't made, he's not going to go through the process of going through everything else because your manual is not going to be what he expects, right, Mr. O'Guin?

CHIEF O'GUIN: Yes. They submit the manual to my office prior to any inspection. We go through and verify all the Board recommendations are met and that is when they verify they're ready, then we'll schedule inspection.

MR. HORTON: I don't know if it's protocol for me to comment on it, I can make these changes fairly

quickly, and I would volunteer and can submit that protocol ahead of time, it's pretty straightforward stuff.

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CHAIRMAN MORELOCK: Yea, that's what you would do is submit it to the Board with the revisions, then they will set up a site visit to come to your site and take the manual and walk through the manual and make sure what you're doing matches the manual, that's the key part of that, so.

MR. BAUGHMAN: I would add to that, Mr. Chairman, that we're looking at approving a manual that is lacking in quite a bit of information that we're relying upon it being resubmitted to the Chief and the Boiler Unit and we don't have, we've got a manual that we're looking at on boilers that are not yet installed, the system is not yet installed with revisions and corrections to administrative and both hardware, and so my end of it is, are we putting the cart before the horse a little bit in evaluating this manual for approval? We won't see the final result, it'll end up going to the Chief, but we don't won't have a final result for our ownselves (sic), and just looking at that and the protocol for anything that's being proposed to be installed, but not yet quite set up, and there's a number of changes that are in this particular manual

1 that we've gone through that I don't feel quite 2 comfortable in where it stands presently. 3 understand Mr. Bowers' motion and we can -- we can vote 4 on that or we can propose the possibility of making the 5 revision since the equipment is not installed yet, that 6 they can bring back those revisions for the December 7 meeting. 8 MR. BOWERS: So my motion has not been 9 seconded, so. 10 CHAIRMAN MORELOCK: Correct, it's not been 11 seconded. 12 So he can make another motion? MR. BOWERS: 13 CHAIRMAN MORELOCK: Absolutely. 14 MR. BOWERS: You can make another motion, my 15 motion has not been seconded, so. 16 MR. BAUGHMAN: So I would make a counter 17 motion. 18 CHAIRMAN MORELOCK: Well you're just going 19 to make another motion. 2.0 MR. BAUGHMAN: I'll make another motion, 21 thank you, that we make the revisions of the manual 2.2 according to the description of what we've described 23 during this discussion that you bring that manual back 2.4 in, then we've got good accurate information to be able 25 to take it, walk right through it and be able to put our vote on it at that time.

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MR. BAILEY: I think what would be proper is, I mean, this is a variance request that's before you, would be, if you don't feel comfortable approving it at this time, then you deny it and tell them that, you know, "make the changes, come back and we'll consider it at December Board Meeting."

CHAIRMAN MORELOCK: That can be done as well, so what is the Board's pleasure?

MR. BOWERS: I made the motion, it wasn't seconded, how do we proceed on that if no one -- we vote down if it's not seconded?

MR. BAILEY: Then there's no motion, so either you need to make a motion to approve it and it will be passed or make a motion to reject the variance request at this time.

MR. TOTH: Mr. Chairman, can you just not make a -- can you make a motion to call for the vote to approve?

CHAIRMAN MORELOCK: You can. You can, but we have to second his motions to vote it, and if it's voted down, you've not accomplished anything because we don't have any path forward for these gentlemen to get something done. So my advice is what motion we make needs to help these gentlemen get where they want to be.

1 If they need to come back with the revised manual in 2 December, and that's voted, that's fine. There are a 3 lot of changes to the manual, but all of those changes 4 are captured in the minutes, and so, it's strictly up to 5 the pleasure of the Board; what motion does the Board 6 want to make? 7 Mr. Chairman? MR. HENRY: 8 CHAIRMAN MORELOCK: Yes. 9 MR. HENRY: As I understood it, 10 Mr. Baughman's motion is exactly what you were 11 suggesting is that we would not approve the variance at 12 this particular time; we would request that all the 13 additional information be provided before, and then it 14 would have to be brought back to the Board for approval, 15 so I think Mr. Baughman's motion accomplishes what you 16 just indicated to be the appropriate action, and on that 17 basis, I would second Mr. Baughman's motion. 18 CHAIRMAN MORELOCK: So Mr. Baughman's motion 19 has been seconded that this that approval be rejected, 2.0 so the manual can come back with changes in December for 21 another vote, and we have a second on that. Anymore 2.2 discussion? 23 (No verbal response.) 2.4 CHAIRMAN MORELOCK: Hearing none. I'm going 25 to call all in favor, say "aye."

1 (Affirmative response.) 2 Opposed? Abstentions, CHAIRMAN MORELOCK: 3 not voting? 4 (No verbal response.) 5 CHAIRMAN MORELOCK: So your current manual 6 has failed, it's just got a lot of changes you need to 7 make to it, bring it back to the December meeting. 8 minutes will be published. You can go out to the 9 website TN.gov for the Boiler Unit and you can get those 10 transcripts and use that as a checklist of what you need 11 to do to update your manual, okay? 12 MS. PRESSON: If I'm not mistaken, they do 13 not get posted until after you all approve them, so they 14 would not be out. 15 CHAIRMAN MORELOCK: That's true, that's a 16 true statement, so could we send a unapproved copy? Can 17 we send them something so they know what changes to make 18 this manual? 19 MS. PRESSON: I know Steris approved -- got 2.0 a request, so I'll leave that to Tom and the rest to 21 decide, I just remember Steris got one shortly after one 2.2 of the meetings that hadn't gotten approved yet, so. 23 CHAIRMAN MORELOCK: Do you feel like you've 2.4 captured all of the comments that we've made? 25 MR. HAYNES: Yes, sir, I do.

1	CHAIRMAN MORELOCK: So you want to stand on
2	that?
3	MR. HORTON: Yes.
4	CHAIRMAN MORELOCK: That's your prerogative,
5	so.
6	MR. HORTON: I feel good, yes.
7	CHAIRMAN MORELOCK: Okay. So so then
8	that meets all the requirements then. So take the Board
9	comments today, revise your manual, get it back on the
10	agenda 45 days before the December meeting and we'll
11	meet again.
12	MR. HORTON: Yes, sir, thank you all.
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CHAIRMAN MORELOCK: So, that takes up to item number 21-05 Hyosung requests of variance for boiler attendant requirements. So whoever, yes, there you are, if you'll introduce yourself.

MR. HERTTER: Ryan Hertter with Innovative Engineering Services. I apologize, a representative from Hyosung is not here. Their department has been ravaged by COVID. The person that was supposed to be here is hopefully recovering, his supervisor is God for now. We've actually had somebody in the department passed away, so it's a struggle a bit right now.

CHAIRMAN MORELOCK: Are there any conflicts on the Board?

(No verbal response.)

CHAIRMAN MORELOCK: No conflicts. Okay. So, if you'll present your manual.

MR. HERTTER: If I can give you just a little bit of background; there was a variance for this facility before, I guess about eight years ago, and it was since then bought by Hyosung. They did not even realize they had a variance, so they have been on a 20-minute rule for the past six or seven years, I think, so this is a, they're trying to renew that and they realize that that is possible.

1	I also apologize, in the manual there was
2	some figures that did not show up clearly, did everybody
3	get a copy of that? One of the major changes from the
4	previous manual is that they don't use nearly the same
5	about of steam, some of those processes changed. So
6	really the steam system is really only used to heat up
7	the oils as opposed to natural process, so they only use
8	one boiler now, and it's a fairly low capacity, it does
9	still have pressure.
10	CHAIRMAN MORELOCK: Okay. What questions
11	does the Board have? I have one immediately just from
12	what you said. Oh sorry, thank you, thank you. I need
13	a motion to discuss.
14	MR. BOWERS: I make that motion to discuss.
15	MR. HENRY: Second.
16	CHAIRMAN MORELOCK: Thank you. So you're
17	saying you're primarily running on one boiler?
18	MR. HERTTER: Yes.
19	CHAIRMAN MORELOCK: But you're going to have
20	
	a variance for two boilers?
21	a variance for two boilers? MR. HERTTER: Yes.
21 22	
	MR. HERTTER: Yes.
22	MR. HERTTER: Yes. CHAIRMAN MORELOCK: Okay, thank you. What

CHIEF O'GUIN: The remote station, have y'all changed that remote station? I thought under the last discussion we had, they were moving the remote station, but it's showing in this manual, I'm showing the same location, it was the unmanned location? MR. HERTTER: We had discussed that, and due to their staffing, they have not yet done it, but that is going to be done, yes. CHIEF O'GUIN: So they do plan on moving from this unmanned location to another location? MR. HERTTER: Well it'll still be in the maintenance department, they're planning on putting the E-Stop right there by the station so that the maintenance crew, five or six people in the maintenance per shift, and they are in that area, so it is not -there's not somebody sitting there at a certain time. CHIEF O'GUIN: When we went by for a visit just to kind of look at this issue, there was no one in this office. This was an unmanned, which I'm aware they're not active right now, but they're not going to be sitting in this space, so if no one's in here, what's their -- what's their plan? MR. HERTTER: So they have a full control system, so basically anywhere that they have a phone, they have the ability to have a remote station.

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CHIEF O'GUIN: Thank you.

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CHAIRMAN MORELOCK: If you look on the cover letter, which is page right after the title page, the rule that is being referenced is incorrect, Rule 0800 was revised in 2016, and so that rule number now is 0800-03-03-08 parenthetical 11.

And on page 19, organizational chart does not label anybody as a remote monitor. You need to show the Hyosung plant personnel who are remote monitors during normal operating hours and show Clarion Security as remote monitors after hours and weekends on the organizational chart.

On page nine, it's Hyosung now, so you don't want to the, part of the first sentence, no, second sentence, under section two, it's no longer Mitsubishi so MEPPI acronym should reflect Hyosung, typo.

And this is not a requirement, this is just a suggestion, it's okay to use proper names in your manual, but if you use the job title, when that person changes, you don't have to revise your manual. So just, that's just some advice, that's not a requirement.

When you get down to the bottom of that first paragraph, it's talking about training, tells your services and says "TIS software analytics and knowledgeable technical specialists filter imperative

information," but we don't know who those knowledgeable technical specialists are.

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Thank you for the clarification on the drawings. That's all I have for the moment. What other questions does the Board have?

MR. BAUGHMAN: Dave Baughman. Just one note, I'm looking for the placard that would describe the procedures. I see the emergency procedure and on page 39, which is section five, but that doesn't give a good description of the actual emergency procedures that would be placarded in the remote monitoring station, and it gives an overall view as far as kind of what's happening, but doesn't quite give a point-to-point description on the emergency procedure.

MR. HERTTER: I think the main intent is for them to call these people so that they can make the determination. There's a list of numbers at each one of the E-Stops.

MR. BAUGHMAN: I understand. Understanding that these are personnel that are not, even this doesn't necessarily specify what the protocol is, it says "all maintenance personnel have the authority to push the shutdown button in case of an emergency," but it doesn't actually list out "In the event of an alarm, this is what happens, step one, step two; if somebody doesn't

answer within one minute, step three, and so forth," so we don't really have a clearcut emergency procedure the way that I perceive this.

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I was looking at just the emergency shutoff location and posted information on page 41, again, it looks like it gives names, office extensions and so forth, it has the emergency shutoff switch down there with a cover to keep anything from bumping into it, but it's not clearly marked on the outside emergency boiler shutoff switch. So unless so indicated in red letters, somebody may not actually know that that's the emergency boiler shutoff switch, and I wanted to make sure that that was at each point of egress, pedestrian egress in that boiler room, which you may direct me to the boiler room drawing.

MR. HERTTER: The very first page shows the layout of the plant back in the utility boiler room, in the middle, on page two. I don't think it's in the manual itself --

MR. BAUGHMAN: Page two, you said?

MR. HERTTER: Yea.

MR. BAUGHMAN: It's on showing the boiler room in reference to the maintenance office remote monitoring, so what I would look at is just making sure that E-Stops are properly located and that they do shut

off both boilers in case of being annunciated. 1 2 MR. HERTTER: And we do have an E-Stop at 3 all three boilers, we can add that placard. We're going 4 to add one more E-Stop over the new remote station, 5 which is near the maintenance department, so between the 6 boiler room and maintenance room. 7 MR. BAUGHMAN: Again, distances are good 8 just to lay out on the drawings themselves, I know it's 9 in close proximity, but being able to have that. 10 I'm curious about the previous, this is a 11 renewal, I wasn't privy to having the previous manual to 12 go over, but --13 CHAIRMAN MORELOCK: Mr. Baughman, the cover 14 letter states that this is a new variance, not a 15 renewal. 16 MR. HERTTER: Due to the time that it's 17 being, it's being presented as a new variance. 18 MR. BAUGHMAN: The checklist on item nine 19 indicates that it's renewal, so I had a bit of a 2.0 discrepancy on when the checklist and the cover letter. 21 Okay. So we may have asked this previously, but is the 2.2 maintenance office staffed 24/7? 23 MR. HERTTER: So they have a regular staff, 24 two shifts and they have a night patrol, the boiler 25 operators that do the nightly patrol, so that's what

1 they've got, nights and weekends they have a service 2 that (inaudible.) 3 MR. BAUGHMAN: What does patrol entail? 4 Does that patrol the grounds? 5 MR. HERTTER: It does the entire facility, 6 yes. 7 So I takes it this is a MR. BAUGHMAN: 8 fairly good sized facility that takes more than 20 9 minutes? 10 MR. HERTTER: It does not. You can get from 11 one end -- so they're in a vehicle, so they can get from 12 one end of the plant to the other in four to five 13 minutes. 14 MR. BAUGHMAN: Okay. And do their checks, 15 patrols? I mean, we're just trying to be honest with 16 it, actually going out, running five minutes, going out 17 looking at something, getting back or they've got other 18 duties is what I'm getting at, that's the whole point of 19 them doing a patrol is to patrol it competently in 2.0 looking at the area and checking other equipment and so 21 forth? 2.2 Yes, but their duties are MR. HERTTER: 23 primarily exterior, except for the boiler that they have 2.4 to check every 20 minutes. 25 MR. BAUGHMAN: So, is that described in

our manual that when they leave that the boiler could 1 2 possibly be put on the 20-minute rule? 3 MR. HERTTER: Well we still would like the 4 have the variance during that time. Page 29 is where 5 the --6 CHAIRMAN MORELOCK: So you're correct on 7 page 29, but it doesn't list the four-hour checks with 8 the variance. It's got 20-minute dated weekly, monthly, 9 semi-annual and annual, but it doesn't have the 10 four-hour if you're into the variance, you don't have a 11 paragraph describing what that would look like. 12 MR. HERTTER: That is true, I did not add 13 something to include the variance. 14 MR. BAUGHMAN: So what I was kind of 15 alluding to was the protocol of should somebody leave 16 the station and have to go patrol and then maybe have to 17 take care of other things that we sometimes have to take 18 care of, if in fact they're gone, that protocol, I 19 understand they want to keep it on the variance, but the 2.0 variance is such that if that remote station is not 21 continuously manned or if personnel are going to be away 2.2 that it falls back to the 20-minute rule, is that

CHAIRMAN MORELOCK: Yes.

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correct?

MR. BAUGHMAN: So that needs to be

identified in the manual itself.

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MR. HERTTER: Okay.

MR. BAUGHMAN: Does that make sense?

MR. HERTTER: Sort of. Well, I guess my question is, so is the purpose of the variance to have somebody at a, at the E-Stops so that they can hit the button or to be notified, because they're still in a place where they can be notified on the phone for any type of alarm that comes up?

MR. BAUGHMAN: To that point, who would be around if there isn't somebody at that remote station? They're out doing their patrols, who would be there to let them know that the boiler is in alarm?

MR. HERTTER: It goes to their phone.

That's what I'm saying, anytime, it is with them all the time instead of being tied to a specific location, they're notified anytime there's an alarm, directly all the time on their phone.

CHAIRMAN MORELOCK: So to Mr. Baughman's comment, if you look on page 21, it shows a photo of the manual location and it's on the shelf in the maintenance area, but it should also, under the heading of "remote monitoring station," so you're showing a picture of the remote monitoring station, and it's, this area is the facility's maintenance office next to the boiler room,

correct?

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MR. HERTTER: That's correct.

CHAIRMAN MORELOCK: So that needs to be manned, and your manual has, should have a statement in it, there should be a placard at that remote station so if there is an alarm, the remote monitor doesn't have to go digging for the emergency procedures that are up there on the wall or somewhere where they properly address that alarm with the boiler.

MR. BAUGHMAN: From what Ryan's telling me and what I'm kind of getting a feel of is that they're looking to utilize the variance rule to be able to free up personnel, and if the boiler goes into an alarm, it's going to go to a phone and let them know that the boiler's got an alarm, but that's not the intent of variance rule, otherwise we'd set up all these alarms just on phones and not have to set up remote station continuously monitored and so forth. So I want to be clear that this remote monitoring station has to be a manned or at least in close proximity where they can hear the alarm, see the alarms and what have you, more so than just sending the alarm to a phone to personnel that may be somewhere else that they can respond to, but it's not the intent of the variance itself to be able to utilize that, that means of alarm enunciation. Ιt

helps, it's nice to have an alarm annunciating to personnel, I'm all for that, but there still needs to be somebody at the remote station, am I correct?

MR. BOWERS: Harold Bowers.

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(Unintelligible) brought up, not only be posted, but it also has to be in the manual that (unintelligible) paper manuals, so when you look at the manual you can see (unintelligible), and cell phones don't always work and that's one thing with the remote station has to be hardwired. So, if it's hardwired to a location that nobody goes to, that kind of defeats the purpose of being hardwired. It has to be at the remote location where people would be at to, people will say, well, it's going to go to this station, then it's going to be sent out to a cell phone, " it's going to be at a remote location that nobody's at, well that doesn't really work. Remote location need to be a location that somebody's going to be at all the time. So then if he can't get a hold of you on the cell phone, he can take another precaution, you can't just have it sitting in an empty office and nobody's there, and then say well it's going to go to a cell phone automatically, well that's kind of getting away from the hardwire.

MR. HERTTER: It does go to multiple cell phones.

MR. BOWERS: What if the cell tower goes down?

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MR. HERTTER: I guess what I'm thinking is, I mean, you have to have somebody sitting there all the time? Why can't you have an automatic shutdown instead of a person.

CHAIRMAN MORELOCK: But this remote monitor has other duties, but they just need to be in that area so when this alarm comes up, they can immediately react to it. So I mean, it's not that they just have to sit there waiting for this boiler control to enunciate, I mean, they can have other duties, but they need to be manned at that maintenance station where they're right there at it so if there is an alarm, because there should be some sort of alarm panel that they can see that there's an issue that they can, that they can then immediately contact the boiler attendant to address that issue, because remote monitor cannot restart a boiler, it has to be a boiler attendant.

MR. BOWERS: Some applications in plants, they might have the remote area in the area where the production supervisor is doing other stuff, but he has a light, flashing light, sirens, everything else going on, he knows, hey, something's going on, I need to take care of that, I need to call somebody make sure they got the

1 call. Or in hospitals, they have usually in the PBX 2 office you have where people are operating, they still 3 have a station where they can see lights are flashing, 4 alarms going on, they need to do something. But to have 5 an empty office, you're relying strictly on that station 6 to remotely send it to all cell phones, if the cell 7 tower goes out, then you have a big problem. 8 MR. HERTTER: So the issue is during night 9 watch, the variance, you don't see that as being 10 possible? 11 And that would be because of MR. BAUGHMAN: 12 the lack of personnel available, is that? 13 MR. HERTTER: Right. There would only, yes, 14 there would only be the night watch so there would not 15 be anybody stationed in that. 16 MR. BAUGHMAN: My thoughts on that, Ryan, 17 would be that it would not function under the rules of 18 the variance, that's correct. 19 MR. HERTTER: Okay. 2.0 CHAIRMAN MORELOCK: You can designate, what 21 we're starting to see more and more of, is a boiler 22 quard, which is a quard that goes around and checks 23 stuff, but he can't fully act as a boiler attendant.

They can just let somebody know that's there's a

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problem.

MR. TOTH: Marty Toth, ECS Consulting. Just to kind of help the discussion a little bit, as

Mr. Chairman alluded to, there are a number of locations that do utilize a boiler guard, that boiler guard is in the station, while they're in that station, they serve as the remote attendant, a remote panel that's hardwired. Once they leave that station, if they're the only ones on the site, they have to be certified qualified as a boiler attendant, knowledgeable and they can go take the readings, but they cannot leave either the remote station or the boiler room for longer than 20 minutes. Does that make sense?

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MR. HERTTER: Yes, it does. I mean, it defeats the purpose because they're doing 20-minute rule now with just one person, to add another person, so it doesn't help that situation.

MR. TOTH: Marty Toth again. It actually does help. What I'm alluding to is that certain individual that's manning that station, when they're going to do their rounds, they're going to stop by the boiler room take the required four-hour readings. All I'm saying is is the time difference between when they leave the remote station and when they arrive at the boiler room cannot be longer than 20 minutes, they do that once every four hours.

MR. HERTTER: Okay.

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MR. BAUGHMAN: Mr. Toth, what about when they're away from the remote station for more than 20 minutes?

MR. TOTH: Well, they cannot, that's the point. An example would be, a client that I have, their guards have two separate routes that they take. Route number one, they leave the remote station, they go do route number one, in the middle they go to the boiler room, they take the readings, once they leave the readings or leave the boiler room, they go back to the second route, end up back at the remote station. At no time are they absent from either location, the remote station or the boiler room for longer than 20 minutes.

MR. HERTTER: I can add that to the main, if that's acceptable to the Board?

CHIEF O'GUIN: Chris O'Guin, Chief
Inspector. When our area inspector was on site, I
guess, two or three months ago, we did make a
recommendation to remove this remote station and
actually put an enunciation panel in, a visual alarm
with hardwire, I see it hasn't been moved yet, so that
was one of the main reasons to come back to the Board.
As you can see on page 21, I mean, that's not very much
of a remote station. And I don't like depending on cell

1 phones for boiler safety, if you're on the other side of 2 the plant, you got to run back to the E-Stop boiler 3 room, a lot can happen in those five minutes, my 4 opinion. 5 CHAIRMAN MORELOCK: Well I think 6 Mr. Toth has freely given you some information that will 7 help you comply. 8 MR. TOTH: Passing it forward, 9 Mr. Chairman. 10 CHAIRMAN MORELOCK: What other questions, 11 comments? 12 MR. BAUGHMAN: Ryan, I was interested to 13 know, did you look over the previous variance that they 14 had back in 2012, I believe? 15 MR. HERTTER: I did. 16 MR. BAUGHMAN: And was there major changes 17 between it and the one that you've assisted in writing 18 up? 19 MR. HERTTER: There were not, I did the 2.0 original. 21 MR. BAUGHMAN: Okay. I was just interested 2.2 to know what those differences were between the two 23 manuals, in as much as we've got issues with that with 2.4 this particular one, I was interested in what the 25 previous one had in it, so thank you

CHAIRMAN MORELOCK: We had same problem with the original variance. What other questions or comments? So, Ryan, do you think you can take the comments you've been given and fix your manual or it's kind of a situation we had with the first one, first review, what's your pleasure? You want to work on this manual and come back or do you want it voted? MR. HERTTER: I mean, I think we're talking about the emergency procedures need to be documented better. The E-Stop needs to be actually put in at the remote station. I need to redefine the night watch, I think those are fairly easy for me to fix in the manual. Okay. CHAIRMAN MORELOCK: Do you want to table this to December or do you want us to vote it up for now? MR. HERTTER: I would prefer the vote now, but if it's going to be denied, I don't. CHAIRMAN MORELOCK: So do I have a motion? MR. BAUGHMAN: Before we submit a motion, I was looking over the, I couldn't find where we addressed training, responsibilities for training, so forth, you may direct me to that, but I wanted to make sure that I read that to be able to go over whose responsibilities it was, the training, the retraining, so forth, as identified in the manual itself and I couldn't just find

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     that offhand, Ryan, so.
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                 CHAIRMAN MORELOCK: Mr. Baughman, this is
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     Shelby County, so they have certified boiler operators.
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                 MR. BAUGHMAN: Yes, but even just training
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     to the manual and so forth.
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                 CHAIRMAN MORELOCK:
                                     I agree, I agree.
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                 MR. HERTTER: It does look like that is
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     missing.
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                 MR. BAUGHMAN:
                                 Thank you for taking a look
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     at that and just adding in again our procedures of
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     training requirements.
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                 CHAIRMAN MORELOCK: Like I said, we've
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     already talked about on page 29, we need to add the
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     four-hour checks on the boiler checklists.
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                 MR. BOWERS:
                              Emergency procedures, yellow
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     copy.
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                 CHAIRMAN MORELOCK: Yes.
                                            Yes.
                                                  The
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     emergency procedure needs to be readily accessible
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     through the cover page or a color tab and you need to
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     also have that posted at the remote station.
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                 On item 24 of the checklist, I just didn't
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     see the words in the manual for four-hour checks, "every
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     four hours," that's the only other comments that I had.
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     What other questions or comments?
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                 So do we have a motion then?
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1 (No verbal response). 2 CHAIRMAN MORELOCK: So hearing no motion --3 MR. BAILEY: Chairman, I probably should 4 have thought of this in the first presentation, if you 5 don't think it's ready, you can also move to just table 6 it. 7 CHAIRMAN MORELOCK: Hearing no motion, we'll 8 table this item to the December meeting and you can work 9 on the manual some more and resubmit to the Boiler Unit 10 45 days before the December meeting and we'll review it 11 again. After you make revisions to it. Okay? 12 right. So this item will be tabled. 13 If I could request a draft MR. HERTTER: 14 copy of the meeting minutes also? 15 CHAIRMAN MORELOCK: Like we just talked 16 about, it won't be approved until the December meeting, 17 but we can work with the Boiler Unit to try to get you 18 an unapproved copy of that discussion. 19 2.0 21 2.2 23 2.4 25

1 2 3 CHAIRMAN MORELOCK: That takes us to item 4 21-06, Tennova Jefferson Memorial Hospital, requests a 5 variance for boiler attendant requirement. So if you 6 will introduce yourself are there any Board conflicts 7 for this item? There are none. Mr. Neville. 8 MR. NEVILLE: Yes, James Neville, Neville 9 Engineering, presenting a variance for Tennova 10 Healthcare Jefferson Memorial Hospital. I do have, my 11 client will be calling in, we've made arrangements with 12 the Chief Boiler Inspector to have Robert Chambers call 13 in and I believe that's being set up. Robert is the 14 Plant Operations Supervisor. 15 Robert, can you hear us? 16 MR. CHAMBERS: Yes, I can hear. 17 MR. NEVILLE: Robert, if you could introduce 18 yourself, then I will start the details for the variance 19 requests for the two power boilers. 2.0 MR. CHAMBERS: Sure, I'm Robert Chambers, 21 I'm Plant Operations Team Leader here at --2.2 Robert, are you there? MR. NEVILLE: 23 MR. CHAMBERS: Yes, I'm here. 2.4 MR. NEVILLE: It cut off on the last 25 statement I guess you made.

1	MR. CHAMBERS: I'll repeat everything. I'm
2	Robert Chambers with Tennova Jefferson Memorial
3	Hospital, I am the Plant Operations (silence) Can
4	you hear me now?
5	MR. NEVILLE: We can hear you now, but it
6	was a little choppy on the last one.
7	MR. CHAMBERS: Well, anyway, I'm the Plant
8	Operations Team Leader here at Tennova Jefferson
9	Memorial Hospital and Boiler Operator.
10	MR. NEVILLE: Our request today is for a
11	variance to two power boilers?
12	MR. CHAMBERS: Yes.
13	MR. NEVILLE: These are two Kewanee Boilers,
14	this high pressured steam is used for sterilization,
15	domestic hot water, medication, heating a facility?
16	MR. CHAMBERS: Yes.
17	MR. NEVILLE: On page two we list, we show a
18	site plan of where the boiler room and remote station
19	will be?
20	MR. CHAMBERS: Right.
21	MR. NEVILLE: Approximately 254 feet
22	distance between the two?
23	MR. CHAMBERS: Yes.
24	MR. NEVILLE: At the remote station, that
25	will be at E.R. registration and the remote attendant

will be classified as an admissions registrar? 1 2 MR. CHAMBERS: Correct. 3 MR. NEVILLE: Both -- there will be an alarm 4 panel at that remote station that will be hardwired to 5 the boiler room? 6 MR. CHAMBERS: Correct. 7 MR. NEVILLE: Has the that been installed 8 yet or is that still pending? MR. CHAMBERS: It's been installed. 9 10 MR. NEVILLE: As far as the boiler 11 attendants, the facility will be qualifying two job 12 positions to be a boiler attendant, that will be senior 13 maintenance mechanic and the security officer? 14 MR. CHAMBERS: Yes. 15 MR. NEVILLE: Robert, if you would go into 16 the detail for the training for those to be a boiler 17 attendant, as far as qualifying them to operate the 18 boiler? 19 MR. CHAMBERS: Okay, each shift, every one 2.0 of them, of course we've trained every one of them, but 21 they check productivity, they check all pressures, all 2.2 water levels, and they also check multiple other things, 23 DA tanks, make sure it's working properly, pumps working 2.4 properly, functioning. They then do a blow down there 25 that checks their conductivity. Then we also went into

a little depth of the training in anticipation of the boiler variance of alarm testing, testing the alarms, making sure they're functioning correctly, make sure they're getting a signal in the registrar's area and communication with them at all times while this is getting being done. So we have trained to that point and so forth in anticipation for the variance, but as far as the boiler itself, Larry (phonetic) understands the emergency E-Stops where they're located. They know where the main breakers are located in case of emergency once they hit the stops, and let's see -- take a DA tank, they know how to bring it online if they have an issue within the area. And the most important thing, they know who to call.

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CHAIRMAN MORELOCK: What questions does the Board have? Well, wait a minute, I need a motion to discuss. Motion to discuss?

MR. BAILEY: Did you ask about conflicts? CHAIRMAN MORELOCK: Yes, I did that.

MR. HENRY: Second.

CHAIRMAN MORELOCK: Thank you for that second, Mr. Henry. What questions does the Board have or comments? In looking through this, I could not find the boiler training log in Appendix H. Let's see, I might have it -- oh, there it is. It's there. I just

1 got in a hurry, it's on me. 2 So, on the organization chart, on Appendix 3 D, I did not see the Senior Maintenance Technician. 4 MR. NEVILLE: Bottom left. Senior 5 Maintenance Mechanic Boiler Attendant. 6 CHAIRMAN MORELOCK: Well, you got "Senior 7 Maintenance --8 MR. NEVILLE: We're qualifying the senior 9 maintenance mechanics as a boiler attendant and the 10 security officer. 11 CHAIRMAN MORELOCK: Okay. So I don't see 12 plant operations supervisor on the work chart on 13 Appendix D. 14 MR. CHAMBERS: That should fall under Team 15 Lead Senior, that's me. 16 CHAIRMAN MORELOCK: Okay, okay. And so 17 again, as you go through the manual, you know who your 18 folks are, sometimes we name them one thing, then name 19 them another, make sure we're consistent. 2.0 MR. NEVILLE: I'll update that work chart. 21 CHAIRMAN MORELOCK: Under emergency duties, 2.2 which is on page 6, 8 and 10, I would make sure all 23 three of those emergency procedures read the exact same 2.4 They're all in there, but just make them all 25 match.

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                 MR. NEVILLE: That's 6, 8 and 10, is that
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     what you're --
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                 CHAIRMAN MORELAND: Six, eight and ten.
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     who is the director of the facility?
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                 MR. CHAMBERS: That would be Kim Coopman
 6
     (phonetic).
 7
                 CHAIRMAN MORELOCK: Okay, I don't see that
 8
     on the organizational chart as well.
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                 MR. NEVILLE: We will add to that chart.
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                 MR. CHAMBERS: Actually he's there, it's
11
     vague, it's director, safety officer, that's who he is.
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                 CHAIRMAN MORELOCK: Okay, just clarify your
13
     job titles. It's a common thing.
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                 MR. CHAMBERS:
                                Right.
                 CHAIRMAN MORELOCK: I know what it was when
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16
     I was making you look for Appendix H, you need, under
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     page seven, under "Training," you need to reference
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     Appendix H for your training log, that's what it was.
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     Right under "Training," you got items one and two,
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     probably want to reference the training log there,
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     that's what I was after.
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                 MR. NEVILLE:
                               Yes.
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                 CHAIRMAN MORELOCK: What other questions
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     does the Board members have?
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                 MR. BAUGHMAN: This is David Baughman, Board
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1	Member.
2	MR. CHAMBERS: Yes.
3	MR. BAUGHMAN: So we are using the security
4	officer as a boiler attendant, is that correct?
5	MR. CHAMBERS: Yes, that's correct.
6	MR. BAUGHMAN: How comfortable is this
7	security officer with attending the boiler and clearing
8	the alarms on a piece of equipment such as the boiler?
9	MR. CHAMBERS: They're comfortable with it.
10	They've actually been doing this for a while, you know,
11	but still we're doing this, we're actually between
12	hourly checks, because they're here 24/7, because there
13	are more of them than there are plant operations now, so
14	they are very comfortable doing it.
15	MR. BAUGHMAN: Are they comfortable with
16	diagnosing the problem before they?
17	MR. CHAMBERS: Actually they're actually
18	doing that because the engineering staff on-call,
19	including myself on-call, we do a phone call if they
20	don't understand something, and we usually come in at
21	that point.
22	MR. BAUGHMAN: Okay. Thank you. Who is
23	sorry go ahead.
24	MR. CHAMBERS: They've been gone through
25	extensive training because some of the things I've left

1 off is gas valve operation (unintelligible) operation, 2 so forth, I mean, they've gone through a lot, so they do 3 understand, some of the points that might be vaque to 4 them, we would call the staff on-call. 5 MR. BAUGHMAN: Very good. Who actually is 6 in charge of training? 7 MR. CHAMBERS: Actually I do that. 8 CHAIRMAN MORELOCK: Any other questions or 9 comments? 10 Following up on Mr. Baughman's MR. HENRY: 11 comment regarding the security officer and his 12 functioning as a boiler attendant, in terms of the 13 experience and education required, it only references 14 the training for the boiler variance procedure. They're 15 actually receiving training in that, you know, basic 16 functioning design of boilers, shouldn't that be in 17 here? 18 MR. NEVILLE: It should, and we will update 19 that. At the time we initially wrote this, how they 2.0 were being trained was in question, but we will add that 21 outside boiler training. 2.2 Okay, thank you. MR. HENRY: 23 MR. BAUGHMAN: This is David Baughman again 2.4 MR. CHAMBERS: Yes, David. 25 MR. BAUGHMAN: So the security officer, if

we have an issue, will attend to the boiler if he's the personnel that's required and he'll be attending the boiler if need be under the 20-minute rule should that be required, correct?

MR. CHAMBERS: Right.

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MR. BAUGHMAN: But should there be an incident at the hospital, whether it's security or whatever the incident may be, he's got the duties of security, patrolling, unsafe conditions, you name it, he's got other duties that he may be called away from the boiler room. He's in the boiler room, I take it because he's the only personnel available at the time to operate under the 20-minute rule, so my -- my concern is that there be an incident come up that would call him away from the boiler room duties, what's the protocol on that situation?

MR. CHAMBERS: Well, in the past, what we still do is the man on-call (unintelligible), if he's going to have to be away for an extended period of time, he calls that man on call and informs him, he swings by, because we all live fairly close.

MR. BAUGHMAN: I understand, but should that person be tied up or what have you, I'm just playing kind of devil's advocate, for the lack of a better term, the what-ifs, especially being a security

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1
     officer, his position is very important there at the
 2
     hospital.
 3
                 MR. CHAMBERS:
                                 It is.
 4
                 MR. BAUGHMAN:
                                 So, my concern is that
 5
     there's an incident that comes up, requires his
 6
     immediate attention and were waiting on other personnel
 7
     to come in, and that's just a concern that I wanted to
 8
     voice.
 9
                 MR. CHAMBERS:
                                 Right.
                 MR. NEVILLE:
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                                There are multiple security
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     officers as well.
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                 MR. CHAMBERS:
                                 Yes, there is.
13
                                 On site at the same time?
                 MR. BAUGHMAN:
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                 MR. CHAMBERS:
                                 They're usually overlapped,
15
     overlapped at least a good hour, hour and a half,
16
     depending on whether it's weekend or evening.
17
                 MR. BAUGHMAN:
                                 Is there any time where
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     there's just one security officer?
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                 MR. CHAMBERS: Yes.
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                 CHAIRMAN MORELOCK: What other questions
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     does the Board have?
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                  (No verbal response).
23
                 CHAIRMAN MORELOCK: Hearing none.
                                                     Do I have
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     a motion?
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                 MR. BOWERS:
                               I have a motion to approve,
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1	pending on the changed updates on the manual.
2	CHAIRMAN MORELOCK: (Unintelligible) by the
3	Boiler Unit?
4	MR. BAUGHMAN: Yes.
5	MR. HENRY: Second.
6	CHAIRMAN MORELOCK: All right, I've got a
7	second. Last call for questions or comments? No call
8	to question. All in favor, say "aye."
9	(Affirmative response).
10	CHAIRMAN MORELOCK: Opposed?
11	MR. BAUGHMAN: Opposed.
12	CHAIRMAN MORELOCK: Got one opposed.
13	Abstentions?
14	(No verbal response).
15	CHAIRMAN MORELOCK: Motion passes.
16	MR. NEVILLE: Thank you.
17	MR. BAUGHMAN: James, I just wanted to
18	clarify why the opposition on that, and it really has to
19	do with lack of personnel. That security officer really
20	is a point that we're not going to know a situation
21	comes up, we have voted a variance for a three-year
22	period of time, and we're taking for granted everything
23	works right, we know in a perfect world it does, but
24	we're not in a perfect world, so hence for my position
25	because the answer to one security officer being on-site

at a particular time, so I just wanted to kind of clarify that for you. The manual, I like the manual, you did a good job.

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MR. NEVILLE: So if other clients come in and they have multiple security officers, that would be more in favor, correct? I mean, that's the issue with this one is the lack of redundancy in that one individual?

MR. BAUGHMAN: Just having one security officer available, should there be anything that comes up, whatever that situation is, there's too much time in between to make the attendants work properly. If you had multiple personnel there, I mean, multiple security people or qualified boiler attendants on site at the same time or anybody else that could fill in as the boiler attendant, from what I was listening to, he would be the only one at certain periods of time.

MR. NEVILLE: Right. So, the beginning of the shift, you know, they're still required to go to boiler room and do that, you know, four-hour in between. Now, if they were, you know, called away, one option is for them to shut the boilers down if there was an emergency in another part of the hospital.

MR. BAUGHMAN: My issue was when he's working as a boiler attendant under the 20-minute rule

and then there's an incident, that's where I have the issue at. Thank you.

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MR. BOWERS: Harold Bowers. You know, that's a good comment you made because say in hospitals where you know you say those situations where the security guard, a fight or something, shut the boilers down. I mean, you know, usually boilers are used for sterilization, what sterilization are they doing at midnight? So worse case scenario, shut the boiler down. It's not going to be a drastic effect, that's the easiest way to resolve that matter, get the residuals back out, restart the boiler back up again.

MR. BAUGHMAN: That's a valid point, although I would argue the fact that most sterilization is done at night in preparation for surgeries the next day, so that's just been my observation in sterilization.

CHAIRMAN MORELOCK: So, to play off of that, just as a comment, if there was an issue, you've got one security officer in the boiler attendant room, he shuts the boiler down, I would imagine he's going to be on the call list to get somebody to come in, right?

MR. NEVILLE: That's right.

CHAIRMAN MORELOCK: How long would that take to get that person there?

1	MR. CHAMBERS: About twelve minutes.
2	CHAIRMAN MORELOCK: Okay, so it's an
3	excellent point, you made Dr. Canonico proud today.
4	MR. BAUGHMAN: That is a wonderful comment,
5	Chairman.
6	CHAIRMAN MORELOCK: That was his
7	longstanding concern, and it is a valid concern, but I
8	think it's their operations, and so shutting the boiler
9	down will take care of the safety issue, and so then
10	it's, you know, what's that going to do for the
11	hospital, and that's more on them than on us.
12	MR. BAUGHMAN: If that's the case, then that
13	needs to be written in their manual, that should he have
14	to leave, that the boilers would then be shut down.
15	CHAIRMAN MORELOCK: Yes. All right.
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2	CHAIRMAN MORELOCK: So that'll take us to
3	item 21-07 Turkey Creek Medical Center, requests a
4	variance for boiler attendant requirement.
5	MR. BAUGHMAN: Could I ask for a short,
6	short break?
7	CHAIRMAN MORELOCK: Sure, how about come
8	back at 20 after.
9	(Whereupon, a recess was taken.)
10	CHAIRMAN MORELOCK: We are on Item 21-07,
11	Tennova Turkey Creek Medical Center requesting a
12	variance to boiler attendant requirement. Is there any
13	conflicts from the Board? I'm hearing none. So no
14	conflicts with the Board. Are you ready or are we still
15	waiting?
16	MR. NEVILLE: I'm ready, but still waiting
17	for Mr. Rutherford to call. He says he's walking to his
18	office right now.
19	CHAIRMAN MORELOCK: After we complete the
20	review of item 21-07, we'll take a one-hour break for
21	lunch.
22	MR. NEVILLE: Good morning, Jeff, can you
23	hear us?
24	MR. RUTHERFORD: Yes, I can. Hear what I
25	said? (Unintelligible).

MR. NEVILLE: State would like to request a modification to a variance to Turkey Creek Medical This, I believe the original variance dates back to 2008, the changes to this variance were a control system change. It previously had the Hawk ICS, that was outdated, and they installed the Honeywell RM 7800 with an extended annunciator and bigger control system, so we've outlined some of the changes from the original variance in the Appendix I. Appendix I-5 lists kind of all the changes since that original variance. In 2021, we changed it to the format that you see now, so that includes the -- I will go through it and give you a brief rundown on our variance request again; it's two high pressure boilers, they operate for sterilization. The boiler room, on page two, the boiler room is in a penthouse and the remote station is on the ground floor. We've added multiple pages just to show you how those line up as far as where the remote station is located.

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So the emergency department registration office is where that remote station is located, and healthcare access associate is the job description of the remote attendant.

As far as the boiler attendants that will be monitoring those boilers, the job title, the three job

titles, Senior Engineering Technician, Senior

Maintenance Mechanic and the Security Officer. And in
this application, the security officer will just be
monitoring the boilers.

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Now, Mr. Rutherford, if you would go through the details of the training to qualify those individuals as boiler attendants, that would.

MR. RUTHERFORD: Yes, we have -- I have with me Robert Wright, who is our Senior Engineering Tech and main boiler guy, been with us about five years. We do hands-on with the officers and we have them fill out training (unintelligible).

MR. NEVILLE: Jeff, that was a little choppy, can you repeat that last sentence?

MR. RUTHERFORD: Yes, I was saying, feeding back a little bit for some reason, but our security officers are trained by our folks here, us, and after a couple of weeks of training as to what they do and are able to do on their own, we only third shift through the week and then second, weekends. I don't know if you heard me or not, we have a competency that we have them fill out.

MR. NEVILLE: Can you repeat that again?

MR. RUTHERFORD: Yes. We have a competency that we have them fill out that we grade them before we

1	turn them loose with that task.
2	CHAIRMAN MORELOCK: Are there any conflicts
3	on the Board for this item?
4	(No verbal response).
5	CHAIRMAN MORELOCK: Okay. Do I have a
6	motion to discuss?
7	MR. BOWERS: Motion.
8	CHAIRMAN MORELOCK: Got a motion. Do I have
9	a second?
10	MR. HENRY: Second.
11	CHAIRMAN MORELOCK: Got a second. What
12	questions or comments do you have about this proposed
13	variance renewal?
14	MR. BOWERS: This is Harold Bowers. How
15	long have they been operating under the variance?
16	MR. KLEISS: They've been on the variance,
17	then they've been off the variance for, Jeff, can you
18	detail as far as how long you've been on the variance?
19	MR. RUTHERFORD: We had our original
20	variance 2008, before I was here, they updated patrols,
21	I don't think we went back to the Board on, (breaking
22	up) but we have been doing the tech approval once we
23	found out.
24	MR. KLEISS: So when I got involved with it,
25	the controls were different than the manual that I saw,

so what I did is talked with the Chief and he was like they need to be on the 20-minute rule until this goes before the Board as a modification, so that's been I guess their policy more than anything else, they're on the 20-minute rule. They're not on their variance right now until this modification goes through.

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MR. BOWERS: So you didn't do the original variance?

MR. NEVILLE: That is correct.

CHAIRMAN MORELOCK: The reason this came to the Board is because of technical changes to the equipment and the manual.

MR. NEVILLE: Yes, when they got me involved, that's when I noticed that there were, the controls didn't match up, and then that's when instead of going to just the Chief, as renewal, it needed to be modification.

CHAIRMAN MORELOCK: So the same comment, as far as emergency duties, on pages 6, 8, and 10, just make them all read the same, that way you don't have any issues with it. On the organizational chart, label who is the remote monitor and who is the boiler attendant. Appendix A, there's no natural board members for the boilers, and that's all I have.

What other questions or comments does the

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board have?
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 2
                 MR. HENRY: Mr. Neville, just for
 3
     clarification, I guess I'm a little confused on the
 4
     security officers, are they boiler attendants or are
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     they boiler monitors?
 6
                 MR. NEVILLE:
                                Those are boiler attendants.
 7
     They will attend the boilers on third shift is the plan,
 8
     correct, Jeff?
 9
                 MR. RUTHERFORD:
                                   Yes, that's correct.
10
                              On third shift they will, they
                 MR. NEVILLE:
11
     will go to the boiler room and monitor the boilers.
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                 MR. HENRY:
                             So they're fully responsible for
13
     the operation of the boiler during that time?
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                 MR. NEVILLE:
                               Yes.
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                 MR. RUTHERFORD: That's correct, along with
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     the alarm system that goes to our (unintelligible).
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                 MR. HENRY:
                             Thank you.
18
                 MR. BAUGHMAN:
                                Mr. Henry, I appreciate you
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     bringing that up because I was a little confused.
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     Mr. Neville, on the parenthetical monitor with it, so I
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     didn't know the delineation between, we've got them
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     listed as boiler attendant, but what the monitor part of
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     it actually meant.
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                 MR. NEVILLE: Right, so, as far as
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     troubleshooting those boilers, if there's an error,
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they're going to call in the senior engineering technician to do anything as far as trouble shooting the boiler, but they are trained to operate the boiler.

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MR. BAUGHMAN: Okay. So, is that identified in the manual? Because the boiler attendant duties are on what they can do and so forth, and resetting the boiler, clearing the alarms, diagnosing the cause of the alarm, so I just wanted --

MR. NEVILLE: I guess that is part of their training and Jeff may be able to go into that training.

MR. BAUGHMAN: Jeff, could you elaborate on that training?

MR. RUTHERFORD: Yes, are you guys hearing me okay now?

MR. NEVILLE: Yes.

MR. RUTHERFORD: Okay. What their responsibility is, per monitor down here like we were when we had the variance. So what they're doing is they're going, they are trained on how to disburse with the emergency and take readings and (inaudible) for us, but in case an emergency comes down to our desk and they have a book down there telling them how to get in touch with our company and our services to the hospital (unintelligible). Security person is trained in how to (unintelligible) boiler.

MR. BAUGHMAN: Thank you, Jeff, very much. How many security personnel are available on third shift?

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MR. RUTHERFORD: We only have one, but that is all they do is make rounds and check those boilers currently. They don't do any sitting, (unintelligible) or anything like that any longer, we stay in-house instead of contracting that out for that reason.

MR. BAUGHMAN: Okay, thank you. So the scenario, again, as we've had previous discussion, goes to the boiler needing to be attended for whatever purpose is not on the variance but needs, it needs to have a security officer perform duties as a boiler attendant, and should there be something that comes up and he's the only security personnel on the job site during third shift, and for whatever reason there's an incident needing his attendance, what's the protocol then for him leaving the boiler room and attending the emergency?

MR. RUTHERFORD: He cannot leave that boiler room. The protocol is wherever that emergency is, we go 9-1-1 local law enforcement.

MR. BAUGHMAN: Very good. Thank you, Jeff. I would just ask that be spelled out in the manual also that he cannot respond to any emergencies that would be

1 under his job description of responding to, his duty is 2 solely within the boiler room at that time? 3 MR. RUTHERFORD: That is correct. 4 MR. NEVILLE: While a boiler attended the 5 other duties. 6 CHAIRMAN MORELOCK: You can add that as a 7 new sentence R, on page G 104, because P and Q clearly 8 spells out that he or she will make periodic rounds of 9 the boiler room to verify normal operation and log it 10 and in accordance with the boiler attendant procedures, 11 so he's going to use boiler attendant procedures. 12 then Q is, "response to a boiler alarms in a timely 13 manner in accordance with prescribed boiler attendant 14 procedures," so it's -- this person will definitely be a 15 boiler attendant, but it wouldn't hurt to add that 16 sentence about, if there's an emergency for a security 17 person, they're not going to be the one to go to it 18 they're going to be taking care of the boiler. 19 MR. BAUGHMAN: Jeff, I have another question 2.0 this is David Baughman, Board Member. 21 MR. RUTHERFORD: Yes, sir. 2.2 MR. BAUGHMAN: So you've got a good 23 Honeywell controller that has replaced a Hawk ICS 2.4 system, correct? 25 MR. RUTHERFORD: That's correct, that we can

1 no longer get parts. 2 MR. BAUGHMAN: So my question is, is that 3 all the alarms that the boiler would send out go through 4 this Honeywell with the expanded annunciator now? 5 MR. RUTHERFORD: They do. We have a list 6 and they're printed out down in the E.R. department, not 7 printed out, but just printed on the boiler. 8 MR. BAUGHMAN: So all the alarms go through 9 that programmer? 10 MR. RUTHERFORD: That's correct. 11 MR. BAUGHMAN: Okay. My question would be 12 is, how do we enunciate the low water alarms then since 13 the Honeywell does not enunciate low water alarms? 14 MR. WRIGHT: Robert Wright. On the low 15 water cutoff, the alarm itself does not enunciate at the 16 E.R. department, it enunciates at the boiler, which 17 It's a bell. If they're monitoring sends an alarm out. 18 like they're supposed to be, they would know. Everyday, 19 I'm up there every 20 minutes. 2.0 MR. BAUGHMAN: Okay. So, what you're saying 21 is is that the low water, both the primary and the 2.2 secondary, do not enunciate back to the remote station 23 though, correct? 2.4 MR. WRIGHT: Correct. 25 MR. BAUGHMAN: Those being one of our

1 primary alarms, I understand you're saying it's alarming 2 in the boiler room itself, and that you're checking that 3 every 20 minutes, but I've got concern that that's not 4 annunciating back, that's not -- that's one of the, if 5 not the most important alarm to be annunciated, so I 6 would -- I just have a little concern over that, just 7 throwing that out there. 8 MR. RUTHERFORD: So the other thing that we 9 have, if we have a Metasys for a BAS and it does bring 10 our on-call phone as well on a low-water alarm. 11 MR. BAUGHMAN: Through your building 12 management system? 13 MR. RUTHERFORD: Yes. Sorry, I'm caught a 14 little off quard, we haven't talked about it in a 15 minute. 16 MR. BAUGHMAN: The boiler room itself, I was 17 looking at the layout of it and I was trying to identify 18 where the E-Stops were located. 19 MR. RUTHERFORD: They are directly beside 2.0 the exit door to the roof. 21 MR. BAUGHMAN: Exit door to the roof. Good. 2.2 Is there more than one exit door? 23 MR. RUTHERFORD: There's two that's furthest 24 away, use them or there's a door that we use going in 25 and out and there's one boiler just door.

1 MR. BAUGHMAN: But it is a means of egress, 2 is that correct? 3 MR. RUTHERFORD: Yes, I would assume it is. 4 Okay. Is there an emergency MR. BAUGHMAN: 5 boiler shutoff switch at that door also that kills both 6 boilers? 7 MR. RUTHERFORD: Yes. 8 MR. BAUGHMAN: Very good. So we got 9 emergency stops, which is at both doors that kill both 10 boilers? 11 MR. RUTHERFORD: Yes. 12 MR. BAUGHMAN: Very good, thank you, sir. 13 CHAIRMAN MORELOCK: So if low-water only 14 alarms through the Metasys, how would the boiler 15 attendant check that at the boiler? You know, if he was 16 starting the shift, how would he know if low water is 17 working, that the alarm is working? 18 MR. RUTHERFORD: We all carry a pager or a 19 cell phone that rings, so we all get informed and the 2.0 person on-call or the person that day would be (trailed 21 off/inaudible). 2.2 Okay. My concern is with MR. BAUGHMAN: 23 previous discussion is that it's alarming to a 2.4 telephone, but not alarming to the remote station 25 itself, which is actually what our requirement is, that

1 that be hardwired to the remote station, and being that 2 that's such a critical alarm, it's nothing that we take 3 lightly but that the low-water alarms are a very 4 critical component. 5 MR. RUTHERFORD: Sure. 6 MR. HENRY: If I may, this is Jeff Henry, if 7 I could just follow-up on that. Did I understand you to say that someone is monitoring the low-water alarms by 8 9 20-minute intervals? 10 MR. RUTHERFORD: Yes. 11 MR. HENRY: Who is doing that monitoring? 12 MR. RUTHERFORD: We would. If I understand 13 your question, we have somebody checking that boiler 14 every 20 minutes. During the day, first and second 15 shift will be our maintenance person, and third shift 16 (unintelligible) earlier. 17 MR. HENRY: So you basically have a boiler 18 attendant checking it every 20 minutes, why do you need 19 a variance? 2.0 MR. RUTHERFORD: Because we don't want to 21 check it every 20 minutes. I mean, just to be honest 2.2 with you, it's a, by the time (unintelligible) a small 23 hospital when they take a long time (unintelligible) 2.4 everything going on right now (inaudible). 25 MR. HENRY: I understand, that then goes

back to Mr. Baughman's question, in fact, the critical
alarm is not being --

MR. NEVILLE: Not having that alarm to enunciate properly.

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MR. BAUGHMAN: That would go back to your checklist also on checking your water column, so forth, so it wouldn't enunciate back, it wouldn't be one of the alarms presently that you would be able to enunciate back to the remote station, going we checked it? You could hear the alarm boiler room, but I'm curious to know if it's on both low water and secondary low water, a lot of times it's just on one or the other, but there's alarm circuits on both of those, but that's for things to get taken care of.

CHIEF O'GUIN: Chris O'Guin. What we're seeing in the field annunciated molecular remote station is the primary would enunciate, but it will cut back off once the boiler gets water back. The secondary, once it goes into alarm, it enunciates in the remote panel the whole time until they silence it, cut the boiler off. We do the low water, then we're making them go to secondary, we're making sure visual and audible is working at the remote station, if it doesn't work, they don't pass.

MR. BAUGHMAN: So, correct me if I'm

misunderstanding, but what we're saying is if the 1 2 primary doesn't necessarily enunciate back --3 CHIEF O'GUIN: It will enunciate back, but 4 as soon as the boiler gets water back on its own, then 5 the alarm quits annunciating the remote panel. 6 MR. BAUGHMAN: Then if we see stuff in the 7 field, you'll get a nuisance alarm, water level bounces 8 and low water goes off and what have you, the panel 9 doesn't know, the remote panel doesn't differentiate 10 between alarms, it just sees an alarm, and so what I 11 don't want to do is get somebody complacent with hitting 12 that silent switch, which I'm not a fan of the silent 13 switch to begin with, the E-Stop's a good silent switch, 14 but the silent switch itself in nuisance lock-downs may 15 be a hit, and so - but I'm glad that it enunciates all 16 the same, we want that enunciation primary and 17 secondary. Thank vou. 18 MR. RUTHERFORD: So I wanted to add, when 19 our boiler does go into that low water, it shuts off, it 2.0 will not restart until we go reset the boiler. It stops 21 itself. 2.2 Jeff, that would be just on MR. BAUGHMAN: 23 the secondary or is that for both low waters? 2.4 MR. RUTHERFORD: Secondary. 25 CHAIRMAN MORELOCK: Mr. Toth, do you have

1	question or comments?
2	MR. TOTH: No, I think it was covered. I'll
3	have my chance.
4	CHAIRMAN MORELOCK: Any other questions or
5	comments?
6	(No verbal response).
7	CHAIRMAN MORELOCK: Hearing none. Do I have
8	a motion?
9	MR. BAUGHMAN: Mr. Chairman, I would move
10	that we pass this remote variance with corrections to
11	the low-water enunciation and it being verified back
12	through inspection.
13	CHAIRMAN MORELOCK: Through the Boiler Unit?
14	MR. BAUGHMAN: Yes, sir, through the Boiler
15	Unit.
16	CHAIRMAN MORELOCK: Will that be part of a
17	contingency that they, successful site visit and
18	correction of the low-water, right?
19	MR. BAUGHMAN: That is correct. And the
20	additions to the manual that we spoke about as far as
21	corrections to training and security officer, so forth.
22	CHAIRMAN MORELOCK: Board comments to that?
23	Okay. Do I have a second for that?
24	MR. BOWERS: I second that.
25	CHAIRMAN MORELOCK: Anymore discussion?

1	(No verbal response.)
2	CHAIRMAN MORELOCK: Hearing none. I'll call
3	the question. All in favor, say "aye."
4	(Affirmative response).
5	CHAIRMAN MORELOCK: Opposed?
6	(No verbal response).
7	CHAIRMAN MORELOCK: Abstentions, not voting?
8	(No verbal response).
9	CHAIRMAN MORELOCK: Gentelmen, you have a
10	contingently approved variance.
11	MR. RUTHERFORD: Thank you, I appreciate it.
12	Thank you.
13	CHAIRMAN MORELOCK: All right. We are going
14	to take a one-hour break for lunch. We will reconvene
15	at 1 o'clock.
16	(Whereupon, a lunch recess was taken.)
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CHAIRMAN MORELOCK: Item 21-08, Vanderbilt Wilson County Hospital requests a variance for boiler attendant requirement. Introduce yourself, gentlemen.

MR. TOTH: Thank you Chairman, Members of the Board, it's my pleasure to be here before you today. My name is Marty Toth, I'm with ECS Consulting, the Boisco Training Group, representing Vanderbilt Wilson County Hospital. It's also may pleasure to have Travis Reasons here with me, representing the hospital. Travis is a Facilities Manager, and will be responsible for the implementation of the variance manual there at the hospital, and all parts within.

First, the hospital has installed two Fulton boilers, high pressure steam boilers. They're going to operate approximately 85 pounds. The boiler control on those boilers is the Seaman's LMB 36. It also utilizes the UV flame scanners to monitor the boiler flame.

For the hospital itself, there may be a correction necessary within the manual that you received, their main line of communications between the remote station and the boiler attendants currently is utilizing T-Mobile phone. They are looking in the very near future to switch that to two-way radio communication as their first line of communication.

The remote station is located at the hospital's PBX office or PBX station. It is manned 24/7 by switchboard operators. Those switchboard operators will be certified to be the remote attendants for the hospital. Boiler attendants at the hospital are the HVAC mechanics, they too will be certified to be the boiler attendant/boiler operators. Currently there is an agreement between the hospital and Boisco Training Group to provide those training services to both individuals, both the remote attendants and the boiler attendants.

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Currently the boiler attendants that work the dayshift or, as I mentioned, or the HVAC mechanics, during the evening shifts and the weekends, we will have boiler guards that will be servicing those roles. As with the HVAC mechanics, those boiler guards will be required to go through the same exact training and pass the examination at the end of the training, as would the HVAC mechanics. If they're unable to successfully pass the course, they will not be authorized to serve the role as a boiler attendant, or in this case, a boiler guard.

At this time I'd like to open up any questions that you may have of myself or Mr. Reasons.

1 CHAIRMAN MORELOCK: Thank you, Mr. Toth. 2 Are there any conflicts from the Board Members? 3 (No verbal response.) 4 CHAIRMAN MORELOCK: Okay. No conflicts. Do 5 I have a motion to discuss? 6 MR. BOWERS: Motion to discuss. 7 MR. HENRY: Second. 8 CHAIRMAN MORELOCK: Thank you, Mr. Henry, 9 for the second. What questions, comments do you have on 10 this variance? 11 MR. BAUGHMAN: Thank you Mr. Toth and your 12 associate for presenting this. The question just came 13 to mind when you just mentioned that if they didn't pass 14 the exam, they wouldn't be allowed to be attendants, so 15 forth, so then what happens, if we're short on being an 16 attendant, what's the consequences? What's the 17 procedure moving forward? 18 MR. TOTH: If I can go ahead and answer 19 that, Mr. Reasons can correct me if I'm mistaken; the 2.0 hospital utilizes a third-party company to provide those 21 security individuals. We will get to the point where we 2.2 will have to have somebody be the third-party, go 23 through the training and actually pass the exam. Ιf 2.4 not, we will have to work within the individuals that we 25 have at the hospital under Mr. Reasons' authority, is

1 that correct? 2 MR. REASONS: Yes. We have multiple guard 3 positions, so those quards can go to different positions 4 within the facility, if they pass this troubleshooting. 5 MR. BAUGHMAN: Thank you. I'll carry on, 6 then, keep going, under section two, more of an 7 editorial, in the first item, it just says "number one, 8 Vanderbilt Wilson Hospital, complete microprocessor 9 integrating," would a monitoring control system 10 installed on a high pleasure boiler, its boilers, we got 11 this installed on, both of them, I would assume? 12 MR. TOTH: (Nodded affirmative). 13 MR. BAUGHMAN: That's the worst I got. 14 MR. TOTH: We're in good shape, yes, sir. 15 CHAIRMAN MORELOCK: While you're thinking 16 Mr. Baughman. On that same page, under 3A, distance to 17 the from the boiler room to the station, is it 18 245-inches or 245-feet? 19 MR. TOTH: Let me pull that up, 2.0 Mr. Chairman, thank you for bringing that to my 21 attention. Yes, sir, that is 245-feet, thank you. 22 CHAIRMAN MORELOCK: Then on page 12, on page 23 12, item 4, under "In case of boiler alarm," should that 2.4 acronym "THC boiler attendant," should that be "WCH?" 25 MR. TOTH: Yes, it should, I do apologize,

1	there is a, as you can see, I mentioned in my
2	introduction that the intent was to go with the radio
3	program, and this section here will also be amended to
4	reflect that it will be through mobile phone
5	communication. If the Board approves, down the road
6	when we do go to a radio program, it would simply be
7	just an editorial process with the understanding we
8	would still have that communication, but I do appreciate
9	you bringing that to my attention.
10	CHAIRMAN MORELOCK: Other questions or
11	comments?
12	MR. BAUGHMAN: Yes, sir. So enunciation on
13	this is hardwired back to the remote station, the
14	alarms?
15	MR. TOTH: Yes, it will be.
16	MR. BAUGHMAN: So it's not presently?
17	MR. TOTH: It's not. As with other clients
18	that have appeared before the Board, the hospital would
19	like to make sure that we can get that tentative
20	approval prior to the capital investment.
21	MR. BAUGHMAN: Very good. The alarm panel
22	on page
23	MR. TOTH: Sorry, that should be page four.
24	MR. BAUGHMAN: Page four, thank you. I made
25	a note in my notes, but I didn't write down the page.

Underneath where it says "Panel will have on/off indication lights for each boiler," the bottom of that it shows "item 4, LED type indicator light," I don't see number four on there.

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MR. TOTH: Sorry, Mr. Baughman. If you look in the illustration, you will see a number four with inside the lights of the illustration.

MR. BAUGHMAN: Ah. Awesome, so those are lighted, yes, very good, thank you so much. Being that everything else was off to the side, I didn't look in the center. Thank you, sir. I've got a note of section four, under item one, and I've got a, I "should" meet instead of a "shall," meet, and it had to do with a personnel meeting at the shift changes, and I'm looking for where that was actually circled at, but I always like to kind of clarify that if it's a "should," it's not a mandated thing, but there again, it's more of a preference than it is a mandate in our variance.

MR. TOTH: If you'd like, I can comment on that, Mr. Baughman?

MR. BAUGHMAN: The reason we put a "should" is simply it's not a requirement, it is a recommendation, and a lot of that does have to do with personnel timing. It would be nice if the off-going would meet with the on-coming, in some situations, that

1 is not feasible, so therefore when it is not, it's not a 2 requirement. 3 Thank you, Mr. Toth. MR. BAUGHMAN: 4 CHAIRMAN MORELOCK: Are there any other 5 questions or comments of the Board? 6 MR. BAUGHMAN: How many exits are there to 7 the boiler room on page 13? 8 MR. TOTH: There is only one, sir. Very small space. If we take a look at the actual site plan, 9 10 you'll see it's a fairly small room. 11 Does that meet the MR. BAUGHMAN: 12 requirements for the BTU? 13 The requirements of the BTUs, the MR. TOTH: 14 number of exits have to do with both the BTUs and the 15 sides of the boiler room. So, in this case, the sides 16 of the boiler room, it does meet the requirements that 17 it's not necessary to have two means of exit. 18 MR. BAUGHMAN: So, for clarification, and 19 you being a previous State Inspector would know this, 2.0 but just for our own clarification, for our exit means, 21 we've got to meet -- we've got a criteria of X amount of 2.2 BTUs and over 500 square feet, so it's got to be both, 23 it doesn't go by just one or the other, is that correct? 2.4 And the reason I bring this up is because we've had 25 questions in the past that have come up on that, and

thanks for taking the time to --

CHIEF O'GUIN:

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MR. BAUGHMAN: -- look that up. So on the Appendix C fault list, and I'll give this over to your associate, as you look at the fault list that's in the code on the LMB 36, difference between LMB 36 and then LMB 5 is that the LMB 5 enunciates in English, the LMB 3 does not. And if you notice how many pages of fault codes that you have listed, we're looking at extensive fault code list. My question is, how familiar are you with the LMB 3?

Just keep going, we'll -

MR. REASONS: I, myself, I am not very familiar with it, to be honest with you, boiler guard is brand new, just only a couple of months. HVAC technicians are much more in knowledge with this than I. With that said, once we do see a fault code, we typically call Fulton or Nashville Machine who installed the boilers, tell them the fault codes we received and they either walk us through it or come on out. Right now we tell them to come on out, it's so new, we just ask them to come.

MR. BAUGHMAN: And I appreciate that. Being on the service side myself, we work within the Seaman's controls quite a bit and there's a way to convert from this code to English, there's some systems out there

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that will do that, but presently it makes it very
 1
 2
     difficult for somebody to go in and troubleshoot, so
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     what I'm hearing is that really when something does come
 4
     up, unless it's something they're familiar with, they're
 5
     going to call --
 6
                 MR. REASONS:
                              Boiler supply, yes.
 7
                 MR. BAUGHMAN: -- getting ready to retire,
 8
     so he's the main contact out there, so we're losing some
     great expertise up there. How did the low-water cutoffs
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10
     enunciate, then I'll ask your associate.
11
                              They enunciate inside the
                 MR. REASONS:
12
     boiler room where we do our 20-minute checks. Once we
13
     install our panel. We'll enunciate there as well.
14
                 MR. BAUGHMAN: And we're doing that through
15
     a hardwire?
16
                 MR. REASONS:
                               Yes.
17
                 MR. BAUGHMAN: Perfect.
18
                 CHIEF O'GUIN: Chris O'Guin. You were
19
     asking how many points of egress, is that what the
2.0
     question was? (Unintelligible) shall be provided the
21
     equipment room, 500 square foot floor area
2.2
        (Court reporter asked for Chief O'Guin to speak up, I
23
     could not hear him.
2.4
                 CHIEF O'GUIN:
                                "Two exits shall be provided
25
     for equipment rooms exceeding 500 square-feet of floor
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1 area and contain one or more boilers, bottled water 2 heaters, thermal fluid heaters and (unintelligible) 3 combined fire-fuel capacity one million BTU per hour or 4 more for equivalent (unintelligible) input." 5 MR. BAUGHMAN: Very good, thank you, Chief. 6 So we've got to meet the criteria of both, as Mr. Toth 7 had said earlier, 500 square-foot and the BTU 8 requirements. Thank you very much. So, the limits themselves, the lower cutoff 9 10 primary, secondary is going to enunciate through 11 hardwiring, I would anticipate, there's some alarms that 12 still don't necessarily enunciate, but they shut the 13 boiler off, the high pressure steam switch is one of 14 them, I always like those to enunciate back. Even the 15 carbon monoxide alarms, we're talking about the 16 possibility of future alarming back because you don't 17 know if you're in a situation like that, but you've 18 answered all the questions that I have and I appreciate 19 it. Thank you. 2.0 CHAIRMAN MORELOCK: Are there any other 21 questions? Are there any other questions concerning 2.2 this variant? 23 (No verbal response.) 2.4 CHAIRMAN MORELOCK: Hearing none. Do I have a motion? 25

1	MR. BOWERS: I make a motion to accept
2	satisfactory after inspection, also update the manual.
3	CHAIRMAN MORELOCK: Do I have a second?
4	MR. HENRY: Second.
5	CHAIRMAN MORELOCK: Any other last comments
6	or questions?
7	(No verbal response).
8	CHAIRMAN MORELOCK: Hearing none, all in
9	favor, say "aye."
10	(Affirmative response).
11	CHAIRMAN MORELOCK: Opposed?
12	(No verbal response).
13	CHAIRMAN MORELOCK: Abstentions, not voting?
14	(No verbal response).
15	CHAIRMAN MORELOCK: Gentlemen, you have a
16	contingently approved variance.
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CHAIRMAN MORELOCK: That takes us to the next item, 21-09, Tennova Cleveland request. Is there any Board conflicts of interest on this item?

(No verbal response).

CHAIRMAN MORELOCK: All right, thank you.

MR. TOTH: Thank you, again, Mr. Chairman, members of the Board, it is an honor for me to have with me Mr. Doug Davis, Director of Plant Operations, for Tennova Healthcare Cleveland. We'd like to request a variance for their three Miura high pressure water tube steam generators, and those particular units itself operate at approximately a hundred PSI. Formerly those boilers, the minor boiler used to utilize, both we're very familiar with is the RM 7800 series boiler controller. They have went to a certified individual proprietary controller, the DL11 microcomputer, that serves the role as the flame safeguard, as we like to call the burner (unintelligible) system.

There are a couple editorials that I would like to bring just right off the bat to the Board, number one is the site plan, I know that you may have some questions about that. If you would like to, I will go ahead and bring those up right now. If you so desire to kind of identify some of the information that may be

missing that I will take full responsibility for, that was something I was supposed to revise and I failed to do so. The actual, if you look at the diagram itself, you will notice in the, as you turn it sideways, in the upper left, the upper left corner you see the parking lot, you recognize that gentlemen? Over in that corner, there's an entrance there, at that corner, you'll see security and then PBX. If I may approach? This area is the PBX, the boiler building is right here.

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MR. BAILEY: If you want that on the record, somebody's going to have to talk a little louder.

MR. TOTH: Okay. Mr. Baughman, as you see, this is the PBX with the boiler room across the parking lot, there's a tunnel that runs to it or you go outside and walk across the parking lot.

MR. BAUGHMAN: How many feet?

MR. TOTH: What did we say that was? Five-hundred feet.

Mr. Chairman, this is the PBX with boiler building located across the parking lot. You can actually see directly out the window of the PBX and see the stacks of the boiler, and it also has a tunnel that runs underground.

CHAIRMAN MORELOCK: So are you going to provide little more detail?

MR. TOTH: Yes, I will.

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2 CHAIRMAN MORELOCK: Thank you.

MR. TOTH: Mr. Henry, so this is where the PBX is located. The boiler room is located in a building right across the parking lot, they can see it directly, around 500-feet where there's a tunnel that runs underneath the hospital.

MR. HENRY: Thank you, I appreciate it.

MR. TOTH: I do apologize for that omission,
I just realized it when Mr. Davis and I were reviewing
the manual that I had not updated that, and so I will
make sure that that is added to the manual prior to
inspection, if that pleases the Board?

Also, the other was the example of the boiler panel that will be located in section two, on page four. That's just a standard diagram until we get a photograph of the installed panel. As you can see, it only indicates two boilers when in fact the Hospital Cleveland has three, so we will be getting the panels installed or the panel installed and replacing this with an actual photograph of the installed panel. The panel will have the same configuration, but with three boilers instead of just the two.

If I may, so with our attendants, we utilize the PBX station, as I mentioned, as or remote

station, PBX operators will man that 24/7. For the boiler attendants, we have a staff that includes the maintenance, mechanics, maintenance carpenters, electricians, HVAC, plumbers, there's a vast amount of staff that the hospital has chosen to qualify all these individuals, and I applaud them for that, to make sure that they are able to have certified boiler attendant on site during the variance. Now that will go from 7:00 a.m. to 4:30 p.m., Monday through Sunday. After hours, we have certified boiler guards that will be taking the same certification classes through BTG as the hospital boiler attendants.

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The remote attendants will also be required to take the remote-attended classes, as with all of our clients, the boiler attendants will also take the certification for the remote attendant just so that they are extremely knowledgeable in that aspect as well. All those individuals, as I mentioned before, will have to pass a multiple choice exam to be able to serve the role as either a boiler attendant or remote attendant.

So, with that said, again, let me say this, our first line of communications is the radio, second is mobile phone, and I open it up for any questions you may have of us.

CHAIRMAN MORELOCK: So Mr. Toth, on page

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1
     three, under section two --
 2
                 MR. BAILEY: Mr. Chairman, you got a motion
 3
     to discuss?
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                 CHAIRMAN MORELOCK: Sorry, got ahead of
 5
     myself.
             Back up. Does anybody have a conflict with
 6
     this?
 7
                 (No verbal response).
 8
                 CHAIRMAN MORELOCK: Okay, so now with that
 9
     said, do I have a motion to discuss.
10
                 MR. BOWERS: I make a motion to discuss.
11
                             Second.
                 MR. HENRY:
12
                 CHAIRMAN MORELOCK: Thank you. Okay. So if
13
     you look on page three, item E.
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                 MR. TOTH: Which item, sir?
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                 CHAIRMAN MORELOCK: Item E, on section two,
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     on page three. It says "remote alarming system allows
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     boiler to be continually monitored by the boiler
18
     attendant stationed at the remote station," should that
19
     be --
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                 MR. TOTH:
                            Yes, it should.
21
                 CHAIRMAN MORELOCK: - PBX operator?
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                 MR. TOTH:
                            It should be "remote attendant,"
23
     yes, sir.
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                 CHAIRMAN MORELOCK: Okay. On page 15,
25
     speaking under "equipment description," how does DL11
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1 microcomputer, how does it prevent unauthorized access? 2 MR. TOTH: Mr. Chairman, I'm trying to 3 remember this particular piece of equipment, I know that 4 there is a login under certain settings, but because 5 this is not a network connection, it is a standalone, I 6 do know that the boiler rooms are locked. I don't know 7 if it has any other type of security other than that, 8 the set points, and those are based off of -- those are 9 based off of a password, yea, based off of a password to 10 reset those from. From what I recall, those passwords, 11 the supplier or the service company has those to be able 12 to change the set things, if I'm not mistaken, I would 13 have to double-check on that. 14 CHAIRMAN MORELOCK: Just note that on page 15 15, how do you prevent unauthorized access, that'll be 16 fine. 17 MR. TOTH: Okay. 18 MR. BAUGHMAN: Add to that, we've got, in 19 the service end of it, we have the service passwords to 2.0 go in and have access to certain criteria, the OEM has 21 the full set, but on the service end of it, we got 2.2 criteria for certain (inaudible/trailed off). 23 Let me make a note of that right MR. TOTH: 24 quick. 25 MR. BAUGHMAN: So do you presently have

1 combustion and control solutions servicing these? 2 MR. DAVIS: Yes, they're the factory 3 certified --4 Very good. So, to that MR. BAUGHMAN: 5 extent, just the jump in, Mr. Chairman. 6 CHAIRMAN MORELOCK: Go right ahead. 7 MR. BAUGHMAN: Do you have any nuisance 8 alarms on these units? I can't say that with a straight 9 face, so but, yes, so. 10 MR. DAVIS: Yes, we have had a few. 11 MR. BAUGHMAN: As I would expect. 12 MS. DAVIS: And we always have them come 13 down and check it and make sure everything is good. 14 They're very finicky. 15 MR. BAUGHMAN: Finicky, that's a diplomatic 16 way of putting it. Water alarms are probably the 17 biggest thing that we encounter with these boilers. So 18 with that, it's to the point of, this enunciates back to 19 the panel on your water alarms, I take it, this is where 2.0 some of the nuisance alarms comes into play, and so I'm 21 always, every boiler is different, but some are more 22 susceptible to it than others, but I wanted to make sure 23 that primary and secondary enunciates over as it should. 2.4 The question I've got is, these are classified as steam 25 boilers, but how do you check water level in them?

MS. DAVIS: To be honest with you, I don't do that, so, you know, I would have to refer to one of my boiler techs.

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MR. BAUGHMAN: I would like to know the answer because these boilers don't have a water level site glass, and as a classification of boilers, a steam boiler, section one, the ASME, we are required to have a means of checking the water level in these boilers unless it's classified as a generator, but we've got these classified as boilers, and so that's where my question comes up with how we're actually checking the water levels in the boilers themselves being it's a requirements of a boiler?

MR. TOTH: Can I answer that, Mr. Baughman?

MR. BAUGHMAN: I'd love for you to, thank

you.

MR. TOTH: So just to be perfectly clear, these particular units, as you said, we, when you say "we," you're meaning the State of Tennessee, when you say "we" classified these as a boiler, which we do, in the industry, they're classified as a steam generator because they do not have a fixed water level. Okay. So the proper testing of these can be accomplished by evacuating the chamber, okay, in the unit, because it does not have a fixed water level or a site glass. Any

illustration that I've given you under Appendix B, page 13, it will show you the individual steps of safe operation; if you receive a caution message or if you're seeing an alarm condition, and so, this particular unit does have the ability to evacuate the probe chamber, and in doing so would expose the probes, which would cause a low-water condition, and I hope that answers your question. And all of boiler attendants will be trained thoroughly in that operation.

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MR. BAUGHMAN: I guess one of the questions
I come up with as I'm going through this and knowing the
boiler and the definition between boiler and steam
generator is that the steam generator fall under the
requirement of this particular need, being that it
doesn't meet the definition of the boiler as it's
constructed with the lack of the site glass and so forth
in its construction. So you mentioned that it is, by
definition, a steam generator and not a boiler, how it
gets classified in the industry, so being that, how do
we move forward or does it still come in classification
of what we need to have on the variance?

MR. TOTH: I agree with what you're saying, we've had this discussion many times. I've personally had clients that submitted very similar pieces of equipment. It was very clear the definition within the

State of Tennessee that steam generators are built under section one of the ASME code just as well as boilers that have a reduced water level. With that said, being treated as a boiler, there are certain requirements that State of Tennessee's going to adhere to when it comes to the construction of these boilers, and as long as that boiler meets the requirements of construction under section one of the ASME code, the State of Tennessee is going to allow its operation within the State. There are certain interpretations or cases that have been presented in the past that have been brought up in this forum that do allow for certain liberties when it comes to certain types of inspections, so on and so forth. So I hope that answers your question, because I know this is something that's bothered you for quite a few years, but it is classified as a high pressure boiler, it's defined as a high pressure boiler in the ASME code, it's also defined as a high pressure boiler within the State Rules and Regulations. I know you just mentioned MR. BAUGHMAN: earlier it's a high pressure generator, steam generator

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also, so you're saying it's one in both?

It's one in both. It's one in MR. TOTH: both. It's certain requirements during construction are required on one particular type and no different than if

it were a miniature boiler built under section one ASME 1 2 code, they have certain requirements than you would in 3 section PG of the ASME code. 4 Thank you for that MR. BAUGHMAN: 5 discussion. We'll carry it on some more at another 6 time. 7 MR. TOTH: The next time I'll bring one to the Board with me. 8 9 MR. BAUGHMAN: Other generators, i.e., 10 Clayton, Vapors, units like that that people have 11 installed to be outside of the variance rules and so 12 forth, and we have argued it both ways, hey, it's a 13 boiler, it's a generator, so forth, so I was actually 14 wanting to hear his dissertation on it, so I appreciate 15 that. 16 CHAIRMAN MORELOCK: Any other questions or 17 comments? 18 (No verbal response). 19 CHAIRMAN MORELOCK: Hearing none, do I have 2.0 a motion? 21 MR. BOWERS: Yes, I have a motion to approve 22 updating and drawing innate changes and of course a 23 statement. 2.4 CHAIRMAN MORELOCK: Do I have a second? 25 MR. BAUGHMAN: Second.

1	MR. HENRY: Second.
2	CHAIRMAN MORELOCK: Anymore questions or
3	comments?
4	(No verbal response).
5	CHAIRMAN MORELOCK: Hearing none, I'm going
6	to call the question, all in favor, say "aye."
7	(Affirmative response).
8	CHAIRMAN MORELOCK: Opposed?
9	(No verbal response).
10	CHAIRMAN MORELOCK: Abstentions, not voting?
11	Gentlemen, you have a contingency approved variance.
12	MR. TOTH: Thank you, Gentlemen.
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CHAIRMAN MORELOCK: Takes us now to item 21-10, Tennova Newport, requests variance for the boiler attendant requirement. Are there any conflicts with the Board on this item?

(No verbal response)

CHAIRMAN MORELOCK: You may proceed.

MR. TOTH: Thank you, Mr. Chairman. It's an honor to have the Director of Plant Operations at Newport Medical Center in Newport, Tennessee. We come to you today requesting a variance for remote attendant of the two high pressure boilers. I believe, Chief O'Guin, I, apparently I had sent over to my printer the wrong checklist for a different client. I found that the other day and I sent that over, hopefully you were able to receive that in time, I do apologize for that oversight.

So what we have at the Newport Medical Center, which is both part of a Tennova Healthcare System, is two (unintelligible) hundred horse power fire tube boilers, they utilize the Honeywell RM 7800 series boiler controller. They operate in the range of about 60 to about 70 PSI, producing steam. Their fuels, they're using primarily natural gas with a backup for number two fuel oil. If you'll see, there were a couple

of things that were omitted during the rush to get the manuals in in the timely manner, two of those things were the national board members that were located on Appendix A for page 14, am I correct in that? And if you would, for boiler number one, that would be national board number 2184, and boiler number two, that would be 21191. Okay.

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MR. BAUGHMAN: Could you repeat that first number, was that 2184?

Yes, it read 2184 is what we're MR. TOTH: showing. And so what we have at Newport, very similar to the other hospital operations, we have the remote attendants -- the remote attendants are stationed within the E.R. registration area versus a PBX office, it too is manned 24/7 by unit clerks. The boiler attendants that work for the hospital, we have the maintenance technicians that are going to be the boiler attendants during our dayshift. Evening shift, we will have boiler quards, so those shifts will run from 7:00 to 3:30 would be considered the dayshift, Monday through Friday, then the off hours would be covered by the boiler guards. The first line of communication between the remote station and the boiler attendants will be the radio system, with the backup system being the phone system, if they do not receive an answer. Again, as with the

previous locations, there is to be an agreement between 1 2 the hospital and Boisco Training Group to provide both 3 the remote attendant training and also thorough boiler 4 attendant training for both the maintenance technicians 5 and the boiler guards with the same arrangement that 6 they must successfully pass, take the course, and they 7 must pass the final exam to be able to serve in the role 8 of either the remote attendant or the boiler attendant. 9 And so, with that, I open it up for any questions that 10 you may have. 11 CHAIRMAN MORELOCK: Do I have a motion to 12 discuss? 13 MR. BOWERS: Motion to discuss. 14 MR. HENRY: Second. 15 CHAIRMAN MORELOCK: Thank you. 16 questions or comments do you have to this variance? 17 MR. BAUGHMAN: Mr. Toth, on the testing that 18 you administered for the qualifications, does this 19 testing get changed up or is it the same test for each 2.0 facility? 21 No, it's not the same test. MR. TOTH: 2.2 the training courses are custom built to the individual 23 location, based on their equipment. The program that is 2.4 used for that randomizes the questions, so if say we do 25 a purely in-person classroom and boiler site training,

1	that test is generated for that class. If it is a
2	combination between a customized online classroom, that
3	is randomized between each individual taking that test,
4	so it won't be the same questions every time.
5	MR. BAUGHMAN: Very good.
6	CHAIRMAN MORELOCK: Any other questions or
7	comments?
8	(No verbal response).
9	CHAIRMAN MORELOCK: Hearing none, do I have
10	a motion for this item?
11	MR. BOWERS: I make a motion to approve. I
12	don't know that we had any updates, I guess updating the
13	attached sheets, but also approval on continued site
14	visit by the State.
15	MR. HENRY: Second.
16	CHAIRMAN MORELOCK: Thank you for that
17	second, Mr. Henry. Any other comments or questions?
18	(No verbal response).
19	CHAIRMAN MORELOCK: Hearing none, I'm going
20	to call the question, all in favor, say "aye."
21	(Affirmative response).
22	CHAIRMAN MORELOCK: Opposed? Abstentions,
23	not voting?
24	(No verbal response).
25	CHAIRMAN MORELOCK: You have a contingently

1	approved	varian	ce.			
2		MR.	TOTH:	Thank	you	Members.
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CHAIRMAN MORELOCK: Okay, that takes us to item 21-11, variance guideline and checklist revisions, and this is an action item, action item for revision of the variance guidelines and checklist, so I hope everyone has a copy of that. So what you have is we had a couple of redline provisions in the previous board meetings, the Board Unit graciously re-typed this whole thing, it was very hard to format and I want to thank the Board Unit for basically rebuilding this from scratch, it looks really good. And so basically what you're going to see here is revision to the flow chart on preparation of a variance, as well as a renewal of a variance, and that renewal has a decision point to where is the renewal of the variance, does it have any technical changes, if it does have technical changes, it comes back to the Board for review; if it has no technical changes, then the Boiler Unit can approve that renewal.

Most of the changes, if you look at the flow chart, the horizontal line at the top goes all the way to the bottom where you have the question, "Technical changes to the variance, yes or no." The yes, if there are technical changes, it takes you back to the preparation of a variance that will go to the Board. If

technical changes are not required, then you'll see it goes up to the State of Tennessee Inspection for the Boiler Unit can approve that.

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If you move on over to the checklist itself, just so you know, the revisions are shown under item 26, where the words "and boiler attendant" was added. And 27, the words "remote monitoring and boiler attendant" was added. And item 28, "remote monitoring and boiler attendant" was added; 30A, the words "and boiler attendant."

On item 34, the words "and boiler attendant." On item 35, the words "and boiler attendant" were added. On item 36, items D, positive check low water cutoff. E, check of the water in the boiler site glass; and F, check of the boiler flame and spec temperatures, if unit is full fired, were all added. Item 43, do the emergency stops, E-Stops shut down all boilers, local or remote, was added. Item 44, "carbon monoxide and remote station" was added. Item 45 "E-Stop hardwire" was added. That is the changes that's being voted for this proposed provision 11 of the Board variance rule. Are there any questions or comments?

(No verbal response).

MR. BOWERS: Once this is updated, this will be on the website?

CHIEF O'GUIN: Yes.

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CHAIRMAN MORELOCK: So I will open it up for discussion, so.

MR. BAUGHMAN: Mr. Chairman, I've got just one item that comes to mind, and again, channeling my inner Dr. Canonico, section two, system operating manual, in the second sentence it states "it should be kept in mind that this manual is not a boiler operator training manual, however, a program for remote monitors is an integral part of it." My desire is that a statement be put in that states something to the effect that "it is strongly recommended that boiler operator training be," be something, I don't know how to word it, but that we advocate, even though our State does not mandate it, we mandate training to the variance manual, I think that it's important that we strongly recommend boiler operators.

CHAIRMAN MORELOCK: So, to simplify the words, would it be acceptable to the Board and the Boiler Unit and our visitors, if we said, after "however a training program for remote monitors and boiler attendants is an integral part of it," what if we added "boiler attendants" after "remote monitor" in that sentence?

MR. BAUGHMAN: Run that by me again because

my --

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CHAIRMAN MORELOCK: So, the sentence, as today, it reads "It should be kept in mind that this manual is not a Boiler Operator training manual; however, a training program for remote monitors is an integral part of it," so what if we put "A training program for remote monitors and boiler operators is an integral part of it," use the same words that are already there?

MR. BAUGHMAN: Well I guess what I'm getting at is not so much the training to the variance, I think this statement is towards the training of the variance.

CHAIRMAN MORELOCK: It is. It is.

MR. BAUGHMAN: What I'm wanting to do is just to reiterate that we recommend training of Boiler Operators, not so much training to the manual as it is we strongly recommend that Boiler Operators be trained, that may or may not be kosher, but it's something that we're lacking in as much as we're always training to the manual, per the variance, I know there's, I know other groups, Boisco Training Group, our training school and so forth trains further than that, but I just feel like a statement could be made that we recommend boiler training beyond the variance.

CHAIRMAN MORELOCK: Well, that's the whole

thing, this is just for the variance, not an over-arching. I mean, I understand what you're asking, but I don't know putting it in here is only going to box it in for a variance, see what I'm saying?

MR. BAUGHMAN: I do.

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MR. TOTH: Marty Toth, ECS. Can you hear me I definitely see what Mr. Baughman is referring to; there's a couple of things I would like to mention, number one is the confusion that comes about, I'll talk about the training in a second, the confusion that comes about when we talk about remote monitor, we've seen that, heard that today, in fact, and Boiler Operator, as we know, there is a lot of confusion in the industry with using the term "remote monitoring," when in reality what we do have is an individual, that individual being an attendant, so I would strongly consider for the Board to look at not using "remote monitoring" because that has been a confusing thing in the past, maybe simplify it by calling those individuals "remote attendants," and then boiler attendants be the other.

As for the training, I agree with both of you. I agree with Mr. Baughman, the importance of having trained Boiler Operators, but I also agree with you Mr. Chairman in the fact that this variance is covering the remote variance. Now, everyone knows when

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     a company brings their requests to the Board, they are
 2
     not only going to be questioned about the remote
 3
     attendants training, they also are going to be asked
 4
     about the qualifications of the Boiler Operators.
                                                         The
 5
     Boiler Unit, when they go in to do the inspection,
 6
     they're going to observe that, that's all covered in the
 7
     current rules and regulations stating that the
 8
     individual owner and user shall certify the boiler
 9
     attendants, okay. So I agree with you both on that
10
     matter, so...
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                 CHAIRMAN MORELOCK: Are you also
12
     recommending that we will change "remote monitors" to
13
     "remote attendant?"
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                 MR. TOTH:
                            Yes, sir. I think that may be
15
     clear in the industry, somebody that, a company that may
16
     have a system where they could literally monitor from
17
     Kansas City, may consider the term "remote monitor" as
18
     what you're talking about, and in fact you're talking
19
     about an individual.
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                 CHAIRMAN MORELOCK: What are the Board
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     Members' thoughts on that?
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                 MR. BOWERS: I totally agree with you, that
23
     should be "attendants" put in there.
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                 MR. HENRY:
                             Agree.
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                 CHAIRMAN MORELOCK: Mr. Baughman?
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MR. BAUGHMAN: Yes, I agree, I believe "attendant" is a proper term on it, and I still --(phone rings) -- so it's up to the owner to qualify, although there's no qualifications, other than the owner itself. So, I understand that this is for the operating manual, it was just a recommendation in some form or fashion whereas we have none anywhere else that I'm aware of that would have an opportunity of stating that Boiler Operator training, beyond the variance, be strongly recommended, and whether or not this is the format to put that in, Mr. Chairman, again, I don't know, it's just, it's what I felt called to, and --CHAIRMAN MORELOCK: So, in that vain, I think, tell me what you think about this, so, with this sentence, I've already added, I've changed "remote" monitor" to "remote attendants," so we take this sentence and what if we say, this is talking about the system operating manual, "should be kept in mind that this manual is not a boiler operator training manual," you want to change "operator" to "attendant?" Yes? No? Would "boiler attendant" be a better word than "boiler operator?" I think it's specific I think MR. BAUGHMAN: it's clarifying that this is not an operator training manual. I think that clarifies it pretty well.

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1	CHAIRMAN MORELOCK: Okay. So, let's change
2	that. So we say, "It should be kept in mind that this
3	manual is not a boiler attendant training manual;
4	however, a training program for remote attendants and
5	boiler attendants is an integral part of it." Or do you
6	want to table this and me send you a revision out and
7	let you read it?
8	MR. BAUGHMAN: I think the verbiage that I'm
9	still looking at is beyond the manual itself, so being
10	that I'm sorry, go ahead.
11	CHAIRMAN MORELOCK: So this is just for the
12	variance?
13	MR. BAUGHMAN: Yes.
14	CHAIRMAN MORELOCK: So if you want it
15	broader, we need to take another discussion.
16	MR. BAUGHMAN: Yes, let's that thought is
17	still there, I've given my brother justice in passing
18	along the thoughts of operator training for the record,
19	but I think we'll go with what we've got, as you've
20	described for the for this revision.
21	CHAIRMAN MORELOCK: Okay.
22	MR. BAUGHMAN: Thank you, Chairman, for
23	discussing that.
24	CHAIRMAN MORELOCK: You're very welcome.
25	CHIEF O'GUIN: Chairman It's Chris.

1	CHAIRMAN MORELOCK: Yes.
2	CHIEF O'GUIN: So what you're changing, "It
3	should be kept in mind that manual is not a boiler
4	attendant," so you're taking "operator" out, changing it
5	to "attendant?"
6	CHAIRMAN MORELOCK: Yes.
7	CHIEF O'GUIN: "training manual, however
8	training program for remote," taking "monitor" out,
9	changing it to "attendant," "is an integral part of it."
10	CHAIRMAN MORELOCK: Well, it's "and."
11	CHIEF O'GUIN: "and boiler attendant?"
12	CHAIRMAN MORELOCK: "and boiler
13	attendants is an integral part," yes.
14	CHIEF O'GUIN: So we can make those changes.
15	Thanks.
16	MR. BAUGHMAN: So does that not counter
17	itself in as much as it's not a boiler attendant
18	training manual, however, a training that makes
19	sense. So this is not the training manual itself?
20	CHAIRMAN MORELOCK: Right, this is a guide.
21	MR. BAUGHMAN: But a training manual is an
22	integral part of the variance?
23	CHAIRMAN MORELOCK: Yes. And that's what
24	we're seeing as these manuals are presented, because
25	that's always been a, you know, a long-term concern is

are they properly trained to do the job that they're 1 2 being given to do, and then can they physically do that 3 job if there's only one security quard, can he be a 4 security guard and a boiler operator, which we talked 5 about earlier today, so, at least for the variance 6 manual, I think this is good. Now we have talked in the 7 past a lot about, you know, certification of boiler 8 operators and boiler operator training or some program, 9 you know, that's for another day, and it's not new, 10 we've been talking about it for years, so. 11 wrong with putting that thought back in our heads, so 12 it's good. All right. So is everybody clear on the 13 word changes, as Chief O'Guin has repeated back? 14 CHAIRMAN MORELOCK: Yes, Mr. Henry? 15 MR. HENRY: Brief question, wording, I'm 16 fine with the word as you changed it. In regard to the 17 training, is there anywhere that we or anywhere that any 18 kind of guidance to provide us as to what that training 19 should consist of, in other words, be effective 2.0 providing the attendants whether they're remote 21 attendants or boiler attendants with necessary 22 information to do their job properly? 23 CHAIRMAN MORELOCK: Only thing we've done is 2.4 we've put that off to the variance folder to present to 25 us what training they are providing and then that part

1 of what we vote on is that adequate for training those 2 3 MR. HENRY: But a lot of cases, it's in the 4 manuals is effective, yes, we do training without 5 detailing exactly what that training consists of. 6 CHAIRMAN MORELOCK: That's true, but as 7 you're seeing through the evolution of the variance 8 manual that are being presented, we're seeing more 9 details on what that training looks like, so. I mean, I 10 don't know that it's the Board's place to tell you what 11 the mandatory training should be. 12 MR. HENRY: But you're suggesting that if 13 provided with information we thought was inadequate, the 14 Board would apt to restrict that? 15 CHAIRMAN MORELOCK: That's correct. 16 MR. HENRY: So should we be providing 17 quidance up front? 18 CHAIRMAN MORELOCK: What's the Board's 19 pleasure on that? 2.0 Again, we're here to kind of MR. BAUGHMAN: 21 look at things that are brought in, repose them, at some 2.2 point in time, I would like to have guidelines for 23 minimum training that need to be done. It's pretty 2.4 open-ended as it is, the whole point of the 20-minute 25 rule is pretty open-ended to how it's worded; what we're doing on training and putting that onto the owner for qualifying their personnel. We've got competent companies in the industry that are doing the training, but there again they're charged with the, the owner's charged with doing it however they see fit, and then we're here to vote on whether that's adequate or not, and there's no quidelines to really say whether what they're doing is adequate. What we've got is companies that are saying they're passing our criteria; well let's say they don't have those companies, how do we determine what they're doing is adequate? And so, it is a bit open-ended Mr. Henry and Chairman, so I don't know how to attend to it moving forward, I think that these are things that we'll bring up in the future as we've got times to have some brainstorming sessions, I think these are some things that we possibly bring up for moving forward to make things better.

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MR. BOWERS: In some ways, you know, we don't, basically you can't, you can't, we don't have anything aside from the variance, regular training is not required basically through the State, but with the variance, you do have some control of the training because they have to come before the Board, so the people get variance, their people may be getting a lot better trained than people on the 20-minute rule because

they have not many guidelines. I hate to have too many guidelines because some places, if we set a guideline that is would be minimum, there's a lot of places that would probably do way beyond, like these men, do way beyond what the minimum would be, and you say they go for variance, we don't have to do all the other stuff that we're doing, we just have to do the minimum, so you hate to have a minimum, sometimes over-ended and the Board can decide that, "Hey, your minimums that you're proposing to us is not good enough; your training is not good enough," so you have some control, if you just put a minimum down there, a lot of companies might back off to the minimum and not do a lot more.

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CHAIRMAN MORELOCK: Mr. Toth.

MR. TOTH: Marty Toth again. Just to kind of back up what Mr. Bowers is saying, it's just that it's the Board does a really good job during the variances to quiz the individuals up there about what their training, the individuals, who's going to be responsible, and you all have the experience to recognize when somebody knows what they're talking about and when they don't. The Chief and the Assistant Chief and their personnel, they're going to be the final say, that's where the rubber meets the road is because they're going to go out there and they're going to vet

the program and they're going to inspect the program and more times than not we can sit here and tell you how great the training program is that we have, but the proof's in the pudding whenever they go out and they do the inspections. So putting guidelines together, they still can find that these people don't know what they're doing and they're not going to give them a variance. And then we go back to the 20-minute rule because the only requirements is that the attendant is qualified or certified by the owner/user. Again, hash that all out, you guys passing a variance are going to hold them to a higher standard and so are they.

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thinking about this, Mr. Henry, and the question, several years ago we developed another guideline and program and Domtar came to us wanting to extend their internal inspection frequency from twelve months, which is required by Tennessee Law, to have the option to go to 18 months or even as far as 24 months, and the Tennessee Board put together a program similar to this program for the remote attendant and stating we're not going to tell you how to do it, but here's the components you have to have, such as a water quality program, you have trained operators, we want to see your repair records on the boilers, and that was put into law

in 68-122. And what's interesting about that, and the reason I'm telling you this long story is that's what we put forth, but when it got published, there was another sentence added to that that gave the Boiler Unit and the Tennessee Board the opportunity to just develop a variance, and it's open-ended, it doesn't have any prescriptive words after that, so yes, I think we can help variance requesters as to what it should look like, but we don't want to be the final say on whether their training program is adequate or not, does that make sense?

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MR. HENRY: Yes, that certainly does. I think some of this (unintelligible), have a request for a variance come before the Board, they describe training not adequate, on what basis do we --

CHAIRMAN MORELOCK: So let's do this, let's have a discussion item for us to talk about that and see what we can do to improve what we got today, you agree with that?

MR. HENRY: Yes.

CHAIRMAN MORELOCK: So we'll take a discussion item out to look at variance training requirements, and just see if you, it could be open-ended right now, we'll see where it goes. And if it's something really handy, we'll put it into an action

1	item and put into a guide or something, fair enough?					
2	All right. Very good. Very, very good.					
3	All right. Okay, so back to the proposed					
4	revision to the Board in a variance. All we have, I					
5	read off the changes that we've made and the only thing					
6	we've added is what Chief O'Guin read back to us; are					
7	there any other questions, concerns or comments					
8	pertaining to this particular action item?					
9	(No verbal response)_					
10	CHAIRMAN MORELOCK: Hearing none. Do I have					
11	a motion for this?					
12	MR. BAUGHMAN: So move.					
13	CHAIRMAN MORELOCK: I have a motion. And a					
14	second?					
15	MR. BOWERS: Second.					
16	CHAIRMAN MORELOCK: Any last questions or					
17	comments?					
18	(No verbal response).					
19	CHAIRMAN MORELOCK: Hearing none. I'm going					
20	to call the question, all in favor say "aye."					
21	(Affirmative response).					
22	CHAIRMAN MORELOCK: Opposed? Abstentions,					
23	not voting?					
24	(No verbal response).					
25	CHAIRMAN MORELOCK: So this will pass and					

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this will be Boiler Unit will issue it at the next
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     revision and date it. So thank you for all the work
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     that went into that, that's going to be helpful to
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     improve our boiler attendant variance.
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                 MR. BAUGHMAN: When will this go into
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     effect, Mr. Chairman?
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                 CHAIRMAN MORELOCK: When the Boiler Unit
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     publishes it.
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                                Which would be --
                 MR. BAUGHMAN:
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                 CHIEF O'GUIN:
                                Chris.
                                        End of the week, next
11
     week.
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                 MR. BAUGHMAN:
                                Super. Okay, thank you.
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                 CHAIRMAN MORELOCK: Okay, that takes care of
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     all new business. So that will take us down to rule
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     cases and interpretations and the first one is BI 21-02,
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     ECS Consulting requests an interpretation on the
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     requirements for manually operated remote shutdown
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     switches assigned to low-pressure boilers installed and
19
     operated in the State of Tennessee.
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                 MR. TOTH:
                            Thank you, Mr. Chairman, Marty
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     Toth, ECS Consulting, if you'll give me just one moment,
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     I need to pull it up on my computer. I had it up, then
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    but I closed it.
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                        Mr. Chairman, again, this
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     interpretation, all members of the Board should have a
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1 copy of this from Chief O'Guin. Simply now, this is a 2 continuation, as you can see it's not a typo at the top, 3 this has been lingering around for a while, November 4 2019, so this is a continuation of the interpretation 5 that was passed by the Boards having to do with boiler 6 E-Stops or emergency stops on high-pressure boilers. I 7 was asked if I would come up with an interpretation 8 request for low-pressure boilers and I have done this 9 Simply enough, Mr. Chairman, I asked you how here. 10 would you like for us to proceed? Would you like for me 11 to read them off? Would you like to read them yourself 12 and us discuss? 13 CHAIRMAN MORELOCK: I say, you want to vote 14 all ten of them as one item or do you want to take them 15 an item at a time? 16 MR. TOTH: Well that's at your discretion, 17 Mr. Chairman, I know that in the past the Board has 18 voted on individual items, inquiries, because some 19 passed, some were tabled, so on so forth, so it is at 2.0 your discretion. 21 CHAIRMAN MORELOCK: What's the pleasure of 22 the Boiler Unit, what would you prefer? 23 CHIEF O'GUIN: It doesn't matter, we made 24 some changes. All the questions are fine. I've just 25 got some changes that Marty and I had talked about, if

we would make those changes, and pass it as a whole, that would be fine, or we'll go through each line item one by one.

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CHAIRMAN MORELOCK: Let's do that because I don't want to hold up all of it if we got some we can approve.

MR. TOTH: I agree, I agree. Good decision. Okay, if we would, just to understand, just to give a little bit of background on this, the requirements of the NBIC, requirements CST 1, NFP 85, all require that boilers be equipped with emergency stops. This is going to, this interpretation would specifically speak to those low-pressure boilers. Just for the Board's understanding and those in attendance, a low-pressure boiler is going to be classified as either a steam boiler or hot water boiler. For steam, it's any boiler that is 15 PSI or below. For hot water heating boiler, it's any boiler that is a 160 PSI or below or 250 degrees Farenheit or below for heating boilers. Thev're also, we also are speaking of HLW, which is lined water heaters. Lined water heater also has, for low-pressure is anything a 160 PSI and below, and a temperature 210 degrees Farenheit and below. So with that said, I will move on to inquiry number one, unless you have a question, Mr. Baughman?

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                 MR. BAUGHMAN: Just had a clarification,
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     when you were talking about 160 PSI or 250 degree
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     Farenheit, it's not an either/or, is it?
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                 MR. TOTH:
                            It is.
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                 MR. BAUGHMAN:
                                It is. So it can be 160 PSI,
 6
     but be a higher temperature than 250?
 7
                 MR. TOTH:
                            Yes, it can.
 8
                 MR. BAUGHMAN:
                                Then it changes the
 9
     qualification of that H-stamp, does it not?
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                            Yes, it does, it turns that
                 MR. TOTH:
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     boiler into a power boiler, that's considered a
12
     high-temp power boiler -- high temp water boiler, excuse
13
     me.
14
                 MR. BAUGHMAN:
                                Well i guess that's where I
15
     was getting it confused, when it's "either/or" instead
16
     of "and."
17
                     "Under 160 PSI and a maximum
18
     250-degrees" instead of "or 250-degree Farenheit."
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                 MR. TOTH: And if you'd like, I can give you
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     a very, very brief example of where you would find that.
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     Okay. Is that if you have a boiler that operates, with
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     the medium being like a Dioderm or glycol solution, that
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     solution has a higher flash point and so you're able to
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     run that lower pressures with higher temperatures.
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                 MR. BAUGHMAN: I'm familiar with the thermal
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fluid aspect of it, I'm talking about high temperature hot water boilers, in other words, running not a thermal fluid, but running hot water above 250-degrees, so it's not an either/or, it's those are the maximums that you can run on hot water, not considering thermal fluid.

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MR. TOTH: Well, if you would, Mr. Baughman, we're going by the definition of section four of the ASME code, section four of the ASME code is going to define it is as a hot water boiler, even if the medium is not water or if the medium is a combination of water or some other substance such as a glycol solution, so they all are classified as hot water boilers given that the medium is not necessarily water, by definition.

MR. BAUGHMAN: The cohorts from A.O. Smith and Lochinvar, do you agree with that?

MR. REYNOLDS: For an H-stamp, boiler, the limits are 160 PSI and 250 degrees.

MR. BAUGHMAN: Not "or?"

CHAIRMAN MORELOCK: May I share something with everybody? The rules, under "definitions," yes, 0800-03-03101, go over to hot water heating boiler, which is item E, means "a boiler, which has no steam as generated from which hot water is circulated for heating purposes, and then returned to the boiler and which is operated at a pressure not exceeding 160 PSIG and/or

temperature of 250F at or near the boiler outlet. See ASME code section 4 HG-101.1 DNC."

MR. TOTH: That is correct.

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MR. BAUGHMAN: Thank you. So it's an "and/or," instead of just "or." And I asked the manufacturer, since they manufacture the equipment and they'd be knowledgeable in that aspect of it, so there is some, but I just, when you hit the "or," that was my, that was my red flag that I wanted to address.

Well, thank you, well I'm sorry MR. TOTH: about that, I guess it should have been that the "and" would have been implied, but I do understand where you're coming from. Okay. I guess I'll proceed on. Okay, so "Inquiry number one, State of Tennessee required that all locations operating low-pressure boilers under section, built under section four of the ASME code and possessing an H-stamp be fitted with a manually operated remote shutdown switch." And the response is "yes." Again, I would like to preface, I quess it's not prefaced, since I already stated it, but I would like to preface the fact that these aren't necessarily my opinions of what they should or should not be, it's just the understanding of discussions with implications, so just with that said.

MR. BOWERS: If you're going by remote

shutdown switch definition, but also the code, it talks about NBIC, either shutdown or circuit breaker, so are we going to eliminate circuit breaker now?

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MR. TOTH: No, absolutely not. I think
Chairman O'Guin (sic) kind of brought that to my
attention. Again, it can be either A, it can be either
a shutdown switch or a circuit breaker. Again they're
both shutdown switches, and in some cases some would
call it an E-Stop versus a circuit breaker, either one
would be sufficient per, not only the ASME code CST 1,
but an NFP 85 as well.

MR. BOWERS: Could that be confusing, now I have to go out, I've had it under panel circuit breaker for years, now I want to go ahead and put an E-Stop in, but that's not what you're saying, you're saying if the person has a circuit breaker, they're fine with a circuit breaker as long as it's not --

MR. TOTH: Correct.

MR. BAUGHMAN: And I'll add to that, it has to be at the point of pedestrian egress, and if it's under a control panel, that control panel is not typically at the point of pedestrian egress, so it can be a circuit breaker if it is located in the proper location, and it is properly marked as emergency boiler shutoff switch or shutdown switch, one of the things

that I'd like clarification on in this inquiry, it says that the boiler be fitted with a manually operated remote shutdown switch, which to me means fitted, fitted to the boiler, which isn't what we're doing. It should be connected to a manually operated remote shutdown switch. So the boiler itself is not being fitted so much itself properly, but it's being connected to a remote shutdown switch.

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MR. TOTH: And again, the discretion is completely up to the discretion of the Board to have the Board's question or the Board's inquiry, you can revise this completely as you want to, your answers can be as simple or as in-depth as you want to, it's at your privy. So, if you would like for that to be changed, absolutely, we can change that to whatever you wish for inquiry number one to read.

CHIEF O'GUIN: Chairman. This is Chris. I was looking at the very first one, high-pressure and low-pressure boiler, I was adding "400,000 BTU per hour or greater built under section 4 of the ASME code, (inaudible) or circuit breaker," I'm not going to argue with that.

MR. BAUGHMAN: It makes sense the ASME starts at 400,000, CST 1 starts at 400,000, so that would make sense to keep that congruent although we do

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     have boilers that are 399,000 and so forth that could,
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     you know.
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                 CHIEF O'GUIN:
                                The reason I went 400, we
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     currently enforce 400 on the H-stamp, so if we keep all
 5
     of them at 400, it's going to be less confusion in the
 6
     field, you know, if you're going to be more across the
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     board getting things done the way the rules are.
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                 MR. BAUGHMAN: Makes sense to me.
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                 MR. TOTH: Would you like to repeat that,
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     Chairman O'Guin (sic) and I will revise as you read that
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     off?
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                 CHIEF O'GUIN:
                                I was looking at it is
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     required that all locations operating low-pressure bar
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     400,000 BTU per hour or greater built under section 4 of
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     the ASME code --
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                 (Whereupon, the court reporter asked
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     Chief O'Guin to speak up.)
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                 CHIEF O'GUIN: "At 400,000 BTU per hour or
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     greater."
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                 MR TOTH:
                           Okay.
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                 CHIEF O'GUIN: And at the end after "remote
22
     shutdown switch," I was adding "or circuit breaker."
23
                 MR. TOTH:
                            Okay. And Mr. Baughman wanted to
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     remove "fitting" with what?
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                 MR. BAUGHMAN: Remove "fitted."
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MR. TOTH: "Fitted," I'm sorry.

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MR. BAUGHMAN: But have the stamp be connected to a manually operated remote shutdown switch.

MR. TOTH: Okay. Mr. Chairman, if I could, I'll re-read what I changed? I was hoping that we could have put it up here, but "In the State of Tennessee, is it required that all locations operating a low-pressure boiler at 400,000 BTUs/hour or greater and built under section 4 of the ASME code and possessing the H-Stamp be connected to a manually operated remote shutoff switch or circuit breaker?" "Reply, yes."

MR. BAUGHMAN: Does the location, I know the location is addressed in a separate -- the location is addressed in a separate inquiry, I believe number seven, but is this not the place where it says "should be connected to a remote, to a manually operating remote shutdown switch at all points of pedestrian egress," would this not be a place to put that, we can take one inquiry possibly out?

MR. TOTH: Again, it's really up to the Board how you want to handle it, if you feel that it would be more efficient, we could do that. If you feel that inquiry one, number two is speaking of HLW, it's really what the Board would like to do. I'm comfortable either way.

MR. BAUGHMAN: And I don't know how it'll end up being written up, I just didn't want there to be a lot of interpretation to go back and try to have a contractor look at trying to make it as concise as possible.

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MR. TOTH: Each, if I may, Mr. Chairman, each inquiry, even though it's under a single interpretation number, each inquiry stands on it own, so by not putting what you've recommended in this does not necessarily mean it doesn't have to be put in the means of egress, because if we go further on down and we do mention that it has to be, then it has to be.

MR. BAUGHMAN: Very good.

MR. TOTH: We can move on, if we'd like, Mr. Chairman? So inquiry two in the State of Tennessee, "Is it required that all locations operating a low-pressure boiler under section 4 of the ASME code, possessing the HLW stamp be fitted with a manually operated remote shutoff switch." Again, I will recognize that we're wanting to include "or circuit breaker," replacing the "fitted," is there anything else that the Board or the Unit would like to add to that?

MR. BAUGHMAN: Were you going to address anything on the BTUs with that also, Chief?

CHIEF O'GUIN: I was looking at it -- sorry,

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1
     this is Chris. I was looking at it, Mr. Toth, with
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     input at "400,000 or greater" after low-pressure
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     (trailed off).
 4
                            Okay, so you'd like to do the
                 MR. TOTH:
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     same as we did in inquiry number one?
 6
                 CHIEF O'GUIN:
                               Yes, sir.
 7
                 MR. TOTH: Under inquiry number 2.
                              Jeff Kleiss. Just with regards
 8
                 MR. KLEISS:
 9
     to the calling it a low-pressure boiler, I mean, by
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     ASME, that could be a water heater at HLW, is that
11
     how -- does the State of Tennessee call it a boiler?
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                 CHIEF O'GUIN: Anything over 100,000 BTUs in
13
     the State of Tennessee is considered a boiler.
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                 MR. TOTH: Chief, does that look
15
     appropriate?
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                 CHIEF O'GUIN:
                                Yes, sir.
17
                 MR. BAUGHMAN:
                                It just should read "be
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     connected to a manually operated, " just taking out the
19
     "with."
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                 MR. TOTH: Okay. Moving on to inquiry
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     number three, "In the State of Tennessee, is it required
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     that all locations operating a potable water heater,
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     heaters with an input greater than or equal to a hundred
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     thousand BTUs per hour or 30 kilowatts or less than
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     200,000 BTUs per hour (60 kilowatts) or having a nominal
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1 water containing capacity of 120 gallons (450 liters) be 2 fitted with a manually operated remote shutoff switch?" 3 The provided reply would be "yes." 4 Again, we would change connected to, we will 5 include "circuit breaker, or circuit breaker." Any 6 thing else? 7 MR. KLEISS: Should that volume be "or 8 greater?" 9 This one here? MR. TOTH: 10 It only applies 120 gallons. MR. KLEISS: 11 Uh-huh (affirmative). MR. TOTH: 12 MR. BAUGHMAN: My question is, it's an 13 "input greater than or equal to 100,000, but less than 14 200,000, so it's within this 100,000 BTU through that 15 this is being looked at, so if we go, let's say the hot 16 water heater, and we are classifying this as a hot water 17 heater, although we talked about boilers and water 18 heaters, I just want to make sure I've got it in my 19 mind, if the water heater in this particular case is 2.0 220,000 BTUs, we would not need a remote shutdown 21 switch, so it's just from 100,000 to 200,000. 22 CHIEF O'GUIN: Two above it we were starting 23 at 400,000, my answer to inquiry three was "no." 2.4 was my answer was no, three. 25 MR. TOTH: If I may add to that,

Mr. Chairman, I agree with Chief O'Guin, that we can, instead of having the 100,000 to 200,000, I just changed this inquiry to "anything less than, less than 400,000 BTUs, "and then change the reply to "no." Is that kind of what you were looking at?

I'd like to make one comment.

MR. BOWERS:

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I looked at these, you know, we do inquiry interpretations, but looking at the code, there is not much difference than what the code actually says, except for the less than 200,000, because that's, actually the "less than 200,000" is not, so it doesn't fall under the NBIC, so I can see inquiry number three because it has to deal with something that's not being dealt with in the NBIC, but as far as one and two, you're almost saying verbatim what it says in the NBIC. So why do we have interpretation of something that's already in the NBIC, not different than the NBIC?

MR. TOTH: Can you restate the question?

MR. BOWERS: Number one and two is spelled out almost verbatim, what it says in the NBIC, we're not making any kind of changes to what it says in the NBIC, so we're doing interpretation of the what it says in the NBIC, so why are we doing interpretations and we adopted part one of the NBIC, whereas not requiring number three does not fall in the NBIC because it's an out of code

vessel, am I going down the wrong road or am I looking at it wrong?

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MR. TOTH: No, I think you're onto something, Mr. Bowers, the purpose of the interpretation is to provide clarity, at this point, as Mr. Morelock will attest to, the NBIC is not getting into the weeds when it comes to this, they're very broad. They say, yes, you have to have an E-Stop, they don't give any, they don't give wiggle room on one way or the other on type, they just pretty much lay it out there. So, what this interpretation was doing is providing clarity to the companies that are putting in these types of boilers and was doing in this case of inquiry number three, because they are being inspected within the State of Tennessee, it's going to provide some additional clarity, not only to the contractors that are putting in these types of units, but also the inspectors that are inspecting them to make sure that everybody's on the same page.

CHAIRMAN MORELOCK: Yes, but Mr. Bowers point is, do you need one and two? He agrees you need three, but do you need one and two?

MR. TOTH: That's really the call of the, that's really the call of the Board, because if we have a hot water supply or and HLW that's less than 400,000

BTUs, is there going to be confusion? Again, we can strike through that, we can delete, it's really up to you, all it's doing is providing additional information, it's not changing anything, it's just -- we see it all the time at the NBIC Committee where we get a lot of questions about stuff of us sitting at the table is perfectly clear, but apparently the querier is having some confusion, so it's really again it's just completely up to you.

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MR. BAUGHMAN: We may make, if that's the case, we may make a notation on, under this inquiry as per NBIC, refer back to it is one possibility or.

CHIEF O'GUIN: Sure. NBIC starts at 200,000, so we have a lot of inspectors cross the nation that come into Tennessee from other states and they're trying to enforce code on 200,000 BTU units that we don't enforce code until 400,00) on E-Stop or H-stamp, so I think one and two would provide clarity for not only inspectors, but also contractors. In Tennessee (unintelligible) start until 400 even though NBIC starts at 200, we would be looking at mass violations if we drop down to 200, just my opinion.

MR. TOTH: And again, thank you, Chris, for mentioning that, because when we're talking about that 400,000, a lot of times we're confusing an ASME CST 1 is

an ASME code, that's where you're going to see 400,000 BTUs enforcement, the requirements for automatically fired boilers. Okay. It also gives some exceptions that include water heaters. Okay. So, again, I think what we're doing here is just trying to promote, again, again, promote clarity.

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MR. BOWERS: You're right, Chris, but the NBIC does cover anything that's code, which is anything 200,000, stamp on it, really not doing much different than doing what you're doing now, I mean, basically the place you go to is going to have an E-Stop or a circuit break. Now, as Dave referred to, sometimes circuit breaker is not marked properly stretching a little bit or the circuit breaker is not close to the boiler room, then you say well, that is a problem, that's when you run into a problem (inaudible) in a room to the left, it's supposed to be close to the boiler where it's smoking and you can go in there and shut that circuit breaker off and it's marked. The E-Stop, you're not really adding much to it except for, in Tennessee we've always done 100,000 to 200,000 Alco vessel, I don't think we've ever had anything that really, you can say well, you're supposed to have an E-Stop, it's a out of point vessel, where do you get the documentation, where does it say you have to have E-Stop for circuit breaker? Well, it said at the NBIC. So, putting number three is really going to cover that, it's going to cover you having that where it says, yes, it's an Alco vessel, but you still got to have a circuit breaker, an E-Stop, am I right, Marty?

MR. TOTH: I'm sorry, I kind of got a little lost there. Again, we're confusing what the ASME code

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is requiring for construction and what the ASME CST 1 codes requiring for that particular code's enforcement, Again CST 1 is titled "automatically fired boilers/burners, "right? It's not talking about pool years, it's not talking about mainly the operator, our water heaters, it's specifically talking about boilers that are greater than 400,000 BTUs. What Chris mentioned is talking about the construction requirements, okay, for section four of the HME code, all right, which is, you know, we're looking at 200,000 BTUs, okay. So I think, me personally looking at this, I think this provides more clarity than it will That's just, that's my professional opinion. confusion. Yes, sir.

CHAIRMAN MORELOCK: Anymore comments? Yes, sir.

MR. KLEISS: Where we added that greater than and the volume, I'd strike the word "of" as an

editorial comment.

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MR. BAUGHMAN: Which one? Under number three?

MR. KLEISS: And one other question, I guess, this is more for the boiler inspectors; when I think of an emergency shutoff, I kind of think of the big red button that you slap on the way outside of the door, is that something that you would mandate only for a high-pressure boiler? Does this limit your ability to enforce that kind of a shutoff, they say well I've got a circuit breaker?

CHIEF O'GUIN: We currently require that kind of shutoff for an H-Stamp at 400,000 or greater R.

MR. KLEISS: So does the circuit breaker limit you as to enforce that requirement?

MR. TOTH: So, specifically, the code such as CST 1 and NFB 85 are going to allow for a circuit breaker to serve the same purpose as what we know in the industry as an E-Stop or a mushroom stop, the code allows for that either way. What Mr. Baughman had alluded to is ensuring that that circuit breaker is in the path of egress, what I was talking about, the circuit breaker that's attached to the side of the boiler on the side of the unit, it has to be a circuit breaker in the pass of egress, not only in the code, but

the rules are very specific, either in the four case or 1 2 interpretation or a written rule that states where that 3 has to be located in the State of Tennessee, so, I 4 don't, I don't think that it would be an issue at all. 5 MR. TOTH: If there's nothing else, I will 6 be more than happy to read aloud the inquiry three as 7 edited, Mr. Chairman? 8 "In the State of Tennessee, is it required 9 that all locations operating a potable water heater 10 heaters with an input less than 400,000 BTUs (120 kw) or 11 having a nominal water containing capacity less than 120 12 gallons (450 liters) be connected to a manually operated remote shutdown switch or circuit breaker?" And the 13 14 reply would be "no." 15 MR. BAUGHMAN: While these checks are going 16 on, my question would then be, we're talking about less 17 than 400,000 or less than a 120 gallons, so let's say 18 that we've got a unit that is less than 400,000 but is 19 connected to a storage tank of 200 gallons, does that 2.0 change the equation? What would be your response, 21 Mr. Toth? 2.2 My response to that would be no, MR. TOTH: 23

simply because we're looking at either a fired unit or and (unintelligible) unit being electrical.

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MR. BAUGHMAN: So my thought with that is to

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     delete a gallon requirement on there and just, just
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     having that out of the -- out of the wording itself.
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                 MR. TOTH:
                            If I may? I think a lot of that
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     that goes back to the code, first off it goes back to
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     the original inquiry, which had a response of yes, and
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     since we kind of flipped the script on that and
 7
     established we don't need to have an E-Stop for those
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     lower units, I agree with you and I say we just strike
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     that, that last part of that sentence, that talks about
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     the actual storage tank and just go with the input.
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                 MR. BAUGHMAN:
                                Chief, what's your
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     preference?
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                 CHIEF O'GUIN:
                                Strike that and go with
14
     input.
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                 MR. BAUGHMAN: Mr. Chairman, what do you
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     think?
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                 CHAIRMAN MORELOCK:
                                      That's fine. Moving on
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     to inquiry number four, if any of the first three
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     inquiries --
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                 MR. BAILEY:
                               I hate to interrupt you, but
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     we've been going two straight hours, I think the court
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     reporter should be given a break.
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                 (Whereupon, a recess was taken.)
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2	CHAIRMAN MORELOCK: I know everybody's ready
3	to wrap this up, so we've got a couple of motions to
4	make and we're going to finish most of the agenda, so
5	Mr. Toth, you got a motion?
6	MR. TOTH: Yes, I recommend, after speaking
7	with Mr. Bailey, that we work on the remainder of this
8	interpretation and task group and provide the
9	information at the December meeting for an up and down
10	vote, and I think that that would help to expedite the
11	remainder of this meeting so we're not here too long.
12	And I think working with Chief O'Guin, we'll be able to
13	get that pretty much hashed out and get it to the Board
14	members.
15	CHAIRMAN MORELOCK: Okay. Is that good with
16	the Board?
17	MR. BAUGHMAN: I vote "aye."
18	MR. HENRY: (Nodded affirmative).
19	CHAIRMAN MORELOCK: We will table that until
20	December.
21	MR. TOTH: Thank you.
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CHAIRMAN MORELOCK: So, as far as, that'll take us to "BC 21-02, A.O. Smith Corporation is requesting reconsideration of the Boiler Board Interpretative ruling regarding the clearance requirements for the installation of gas-fired storage water heaters with energy inputs less than 400,000 BTUs per hour."

My name is Greg Reynolds, I'm MR. REYNOLDS: with A.O. Smith, my colleague here, Jeff Kleiss, so thank you everyone for seeing us here today. appreciate the invites from the last meeting that we have about the format inquiry here. So basically what we've done is we handed out a sheet that includes the inquiry and suggested reply, also statement of (unintelligible) and background, we have that in some spots here, just the same text from before. You've seen the inquiry and replies, same as what we sent out previously, here is the background information just to try and hone our message to you guys about what exactly we wanted to convey and some of the logic behind it, so that's the only thing that's changed since the earlier provision was sent out.

So the request that we have here today, inquiry specifically, "Is it permissible for cylindrical

storage water heaters with inputs of less than 400,000 BTUs per hour to be installed at zero clearance on one side and at least one and one-half feet between all other sides of the vessel where the shape permits visual inspection of the entire outer surface of the water heater, the manufacturer's recommended minimum clearances are met and all other clearance requirements as set forth in the rule stated on the screen of the Tennessee Boiler Rules and Regulations on that?" Recommended reply to that would be "yes," if there's any questions so far there, we can of course talk about this more in a moment. Go to the next, which is that we're requesting this to, summary, just to allow equal footing for different types of water heaters, and you know some water heaters, as we talked about in the meeting back in June, are specifically designed for zero clearances -if I can go to the next slide, please -- more about that in the background. There's a lot of words here, I'm not going to read through all of this, but in summary, it really boils down to three points that we're trying to make. Again, that the water heaters are purposely designed for zero clearance for safety and testing regulations that we're required to do. Also the cylindrical shape, these water heaters that we're speaking about, just by the physics of how they're

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wall would allow for, you know, visual inspection around the outside of that. And one of the things that we think this would help us and help our customers would be able to have a level playing field because there already is clearly an allowance for this product that is, by definition, are pressed up against the wall. Okay.

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And so, with that, I only have one more slide that shows an example of something that, just for the record, this was a picture taken outside of Tennessee because according to the current rules, this would not be allowed, but being pushed up against the wall, you can see less than the one and one-half foot clearances that are (inaudible). So this is the type of installations that we would like.

CHAIRMAN MORELOCK: Any conflict of interest?

(No verbal response).

CHAIRMAN MORELOCK: Hearing none.

MR. BAILEY: Chairman, I just want to point out, you reference here Rule 0800-3-3-.0413, I think you we are referring to an old rule, there is no .0413 anymore. So I think you might be referring to, I think you might be referring to 0800-03-03-.08 paragraph -- subparagraph 4, and subparagraph 4(a), that's where it

talks about clearance of three-feet.

MR. BOWERS: I make a motion to discuss.

MR. HENRY: Second.

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MR. BOWERS: I remember the last time you was here and, yes, I thought a lot about it, it seems, maybe it does seem unfair where if you make that hot water heater square and the back side that we would allow it to go against the wall, but yet make it round, then all of a sudden you have to come out two-feet, two and a half foot, but I think maybe the inspector wants to know if he can see around the back side, and of course you don't pull it off the wall to look at the back side, it's mounted on the wall, so I can see where you're coming in on that.

MR. BAUGHMAN: To be specific, this is strictly for storage-type water heaters, not including the boilers that A.O. Smith or Lochinvar would possibly have, which I'm familiar with the cylindrical configuration, but just strictly within the storage-type of water heaters, which we're addressing now, but do you see the longevity of those being in the marketplace a long time moving forward as it is with efficiency changes and so forth?

MR. REYNOLDS: Yes, yes, we do. Our high efficiency store-type water heaters in particular are

very popular, so, yes, yes we do see those (trailed off.)

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MR. BAUGHMAN: I know we work on some ourselves and so forth, in looking at some of the issues we have with condensing and stack configuration and so forth, these are things that we've encountered in it, nothing has prohibited it from being accessible on the Typically what we work on is the burner or back end. the chimney, the condensation point plugging up and so forth, but putting it against a wall this way is one thing, what about the configuration if this goes into a corner though? And that's one of my other things of concern is, we've got multiple points, we've got one point that is against the wall, we've got one point that's not, we got another that is, so that was the only concern I had was looking at a corner installation versus going up against the wall itself.

MR. REYNOLDS: So, to that point, we purposely tried to put language in here to say "only one side," I can appreciate that that's a little awkward wording, that one side of a cylinder, in any case, our intention was this sort of installation and recognizing that a corner would be more problematic, you couldn't see all around the --

MR. BAUGHMAN: So we might put wording in

1 that can be that way either through this interpretation 2 or through your installation manual that would address 3 that? 4 MR. REYNOLDS: Sure. 5 MR. BAUGHMAN: Are these items you all 6 listed? 7 MR. REYNOLDS: Yes, they are. 8 MR. BAUGHMAN: So in your UL listing, it 9 identified clearance requirements as it is? 10 MR. REYNOLDS: Yes, it does. 11 MR. BAUGHMAN: And those clearance 12 requirements match up to the recommended manufacturer's 13 clearances? 14 MR. REYNOLDS: Yes, well, so we have to do 15 testing in order to qualify that there's even zero 16 clearance on the one side that we put against the wall, 17 so the other clearances that we're speaking about here 18 are the recommended service clearances to the other 19 parts of the unit, like for example, in this picture 2.0 that we have on the screen now, there's, to your point 21 you were making just a moment ago, there's a trap, 2.2 exhaust port on the very front, silver elbow that's 23 coming out the front of the unit, and so we would 2.4 recommend that there's also clearance around that part 25 for serviceability, so that's what we mean that the

installer should pay attention to those clearances. 1 2 MR. BAUGHMAN: Do we have zero clearance 3 from combustible services or is this strictly 4 non-combustible? 5 MR. REYNOLDS: So these are for combustible 6 services. 7 MR. BAUGHMAN: For non-combustible or combustible? 8 9 CHAIRMAN MORELOCK: Chief O'Guin, do you 10 feel like that this one side against the wall and the 11 rest of it open, would that give your inspectors the 12 proper opportunity to fully inspect this unit? Chief O'GUIN: I feel like if we can see the 13 14 front, 18-inch clearance, and side of 18-inch clearance, 15 we can do a proper inspection. I was looking at zero 16 clearance though, you know, some vessels are not 17 approved by the manufacturer to put a zero clearance. 18 This would be a question for y'all as well. With that 19 being said, we put "zero clearance," we'll take that out 2.0 and put "install to manufacturer's recommendations, 21 manufacturer's clearance" on one side, instead of 2.2 putting "zero clearance." 23 Second bullet in the inquiry? MR. KLEISS: 2.4 MR. O'GUIN: That's what I was fixing to 25 ask, would the second bullet, manufacturer's recommended minimum clearances are met would be, so I guess that would kind of cover that, you agree Chairman? Board?

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CHAIRMAN MORELOCK: Yes, I mean, if the manufacturer said zero clearance, then that one side could be put at zero clearance; that's why I was asking if it's physically touching the wall, can you still do a complete inspection of the unit?

CHIEF O'GUIN: I believe so. I mean a lot of these older installations, especially Downtown Nashville, buildings built back in the 50's, you know they don't have a lot of rear clearance, there's nothing you can do in a old historic building, so we can still safely inspect those units. I feel safe with three sides clearance, I feel safe to say yes, we can do a proper inspection.

MR. BAUGHMAN: To further what the Chief was saying is that this is not specific, this rule is not specific to A.O. Smith units and A.O. Smith (unintelligible), so what we're doing is discussing and voting upon cylindrical storage water heaters of all the different manufacturers, so therefore we don't want this to be interpreted that each manufacturer has the ability to go with zero clearance, it still has to go according to that individual manufacturer's, not recommendations, but their requirements. So it's not manufacturer's

1 recommendations, it's manufacturer requirements on what 2 these clearances need to be, whether it's a minimum or a 3 maximum, whatever it may be, but I don't want this to be 4 interpreted as carte blanche, any manufacturer of 5 cylindrical water heater can therefore go with zero 6 clearance, so I would put some qualification in that 7 that identifies manufacturer's requirements. 8 CHIEF O'GUIN: Chairman? 9 CHAIRMAN MORELOCK: Yes. 10 CHIEF O'GUIN: I do have one question, where 11 it says "all other clearance requirements as set forth 12 in rule 0800," you know that's 36-inch, the Board case 13 9803 I believe it is the one that requires 18-inches on 14 these type water heaters, so should we reference the 15 Board cases to the rule, in that verbiage? I mean, if 16 you're referencing the rule, you're referencing 36-inch? 17 That's just a question. I'm just asking. 18 CHAIRMAN MORELOCK: You're putting 36-inch 19 on the three other sides. 2.0 CHIEF O'GUIN: But they're only required 21 18-inches by the Board case 9803. 2.2 So what he is saying basically MR. BOWERS: 23 is we need to refer to the Board case, not the rule. 2.4 CHAIRMAN MORELOCK: I see what you're 25 saying, so we need to put the Board case in there to get

to you 18-inches, right? 1 2 CHIEF O'GUIN: That's what I think, do you 3 agree? 4 CHAIRMAN MORELOCK: Yes, I do. You could 5 put "all clearances as set forth in rule," and put the 6 Board case in there too, just add the Board case to it 7 and that should cover everything you would encounter 8 trying to install it. 9 MR. BOWERS: Can you modify a Board case? 10 CHAIRMAN MORELOCK: Yes. 11 So we could go back to the MR. BOWERS: 12 original Board case and add this to that, clearance on 13 the back side of that, to zero clearance or whatever the 14 manufacturer's, whatever manufacturer's recommendation 15 is. 16 CHAIRMAN MORELOCK: (Unintelligible). 17 MR. BOWERS: Yes, I'm saying add that part 18 about the zero on one side. 19 CHAIRMAN MORELOCK: Yea, yea, as far as just 2.0 referencing, yes. 21 MR. BAUGHMAN: I would also suggest that we 2.2 reference that corner installation since they're putting 23 it in their manual, but that doesn't mean that every 2.4 other manufacturer will put it into their manual. 25 would reference that as part of our moving forward is

that we address the corner installation across the board so that it doesn't apply just to A.O. Smith, but it applies to each manufacturer.

MR. BOWERS: But it still has to have 18-inches on three other sides, having 18-inches on three other sides covers the corner.

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CHAIRMAN MORELOCK: You couldn't put in the corner because you'd have two side zero clearance.

MR. BAUGHMAN: Exactly, that only gives you two other sides for possibly 18-inches or whatever dimension of that corner is. And again, let's say it's not a corner, but let's say it's offset, you know, we've got some rooms that are oddly shaped, so we want to make sure what we're looking at is going against a flat wall, that's what we're seeing, that's what we're thinking, but think ahead as far as where all these things go to, we want to make sure that somebody doesn't put it in under an interpretation or a Board case and it's still not be sufficient for clearance and inspection so forth.

CHAIRMAN MORELOCK: But don't you think their words are saying "may be installed with zero clearance on one side and at least 18-inches between all other sides," so there's no configuration?

MR. BAUGHMAN: Well, one side wouldn't be in a corner, if it goes in a corner, it's going to be zero

clearance possibly on two sides.

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clear.

CHAIRMAN MORELOCK: That's what I'm saying, they're only saying one side. If you put it in the corner, it would be two sides that would be zero.

MR. BAUGHMAN: I just want to be sure that that's, if it's spelled out, there's no question, and that's what I was getting at is I don't want to, you don't want to go in to tell a customer they've got to move their equipment, and if it's spelled out, there's no question about it.

CHAIRMAN MORELOCK: So their minimum clearances will be zero on one side and then 18-inches on the other sides, so I don't know --

MR. BAUGHMAN: How to make it any clearer?

CHAIRMAN MORELOCK: I mean, it's pretty

MR. KLEISS: I did want to comment,
Mr. Baughman, you had made a comment about the
recommended minimum clearances versus a mandatory
minimum clearance, so I wanted to address that that when
we have our combustion clearances, those are mandatory
minimum clearances to combustible surfaces. We also
will give recommended clearances that are going to
include service access on different sides. So when we
say "recommended minimum clearances," that's actually a

1	more conservative, a larger clearance than what the
2	mandatory minimum clearances would be.
3	MR. BAUGHMAN: And you did mention that your
4	mandatory minimum clearance services is zero.
5	MR. KLEISS: That's appliance specific, so I
6	mean, I could, for that unit we're showing the picture
7	of, yes, but it depends on the product and it depends on
8	the surface, I mean, different sides have different
9	MR. BAUGHMAN: An atmospheric unit would be
10	totally different as far as a cylindrical versus an
11	enclosed chamber type of unit, so.
12	CHAIRMAN MORELOCK: Any other questions or
13	comments?
14	(No verbal response).
15	CHAIRMAN MORELOCK: Hearing none, do I have
16	a motion?
17	MR. BOWERS: I motion to pass, updating the
18	information as far as the manufacturer's clearance, the
19	18-inches on each side.
20	CHAIRMAN MORELOCK: Okay.
21	MR. BAUGHMAN: Second.
22	CHAIRMAN MORELOCK: All right. So I'm going
23	to call the question.
24	MR. HENRY: Mr. Chairman, if I guess I'm
25	not sure I understand.

1	CHAIRMAN MORELOCK: Go right ahead.
2	MR. HENRY: qualified the motion, what
3	exactly are we voting on?
4	CHAIRMAN MORELOCK: What we're voting on is
5	that it's going to be permissible for a cylindrical
6	storage water heater with inputs of less than 400,000
7	BTUs per hour be installed with zero clearance on one
8	side and at least one and one-half feet between all
9	other sides, with the bullets there as far as the shape
10	permits vehicle inspection, manufacturer's recommended
11	minimum clearances are met, and then all clearance
12	requirements set forth in Rule 800-3-3 and Tennessee
13	Board are met.
14	MR. HENRY: So, as written?
15	CHAIRMAN MORELOCK: As written. All right.
16	As written.
17	MR. KLEISS: I did understand the
18	recommendation, but we have referenced the Board case,
19	but the references to the rule that we had -
20	CHAIRMAN MORELOCK: That's true, thank you,
21	yes, so we would reference
22	
<i>ک</i> ک	MR. BAUGHMAN: 9803?
23	MR. BAUGHMAN: 9803? CHAIRMAN MORELOCK: Yes.

1 "Is it required for potable water storage heater, hot 2 water heater or (unintelligible) pressure vessel adhere 3 to the original three-foot, "that's how you get down to 4 the 18-inches. 5 CHIEF O'GUIN: I don't have the rules in 6 front of me, Chairman, but Mr. Bailey made a note 7 earlier that the rule number is in correct. 8 CHAIRMAN MORELOCK: Yes, because it's so 9 old. 10 I thought you were going to MR. BAILEY: 11 reference the Board Case instead of the rules, I don't 12 know if that matters. 13 CHAIRMAN MORELOCK: We definitely need to 14 reference the case. Do we need to reference, doesn't 15 the rules come along whether we state it or not, other 16 than the Board case or do we need to put the rule in 17 there? 18 CHIEF O'GUIN: If you just put the Board 19 case, I mean, we can leave the rule because the Board 2.0 case is what need to get the 18-inches anyway. 21 CHAIRMAN MORELOCK: Exactly, so I definitely 2.2 put the 9803 in there. 23 I think if you put the Rule in MR. BAILEY: 2.4 there, it makes it confusing, personally. 25 CHAIRMAN MORELOCK: But that's how you get

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     down to 18, if we don't put it in there, it's 36-inches.
 2
                              The Board case.
                 MR. BAILEY:
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                 CHAIRMAN MORELOCK: I see what you're
 4
     saying, put it all in there.
 5
                 MR. BAILEY: I'm saying reference the Board
 6
     case only, because if you reference that and the rule,
 7
     it makes it confusing.
 8
                 CHAIRMAN MORELOCK: Okay, everybody agree to
 9
     that?
10
                            Yes, agreed.
                 MR. HENRY:
11
                 CHAIRMAN MORELOCK: Just put Board Case 9803
12
     in there, you good with that?
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                 (Nodded affirmative).
14
                 MR. BAUGHMAN: Chief, we still have a, for
15
     installation, they still go through the permitting
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     process, is that correct?
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                 CHIEF O'GUIN: Yes, anything over 100,000
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     BTUs requires a permit.
19
                 MR. BAUGHMAN: Very good. So they will be
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     inspected, permits will be sent, they'll be checked on
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     clearances as it is, so all that can be addressed at
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     that time of permitting --
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                 CHIEF O'GUIN:
                                Forty-percent of the time.
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                 MR. BAUGHMAN:
                                Then the rest gets to be
25
     where somebody puts it in, does it without a permit and
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comes back on the back side, at least there's come some process in place.

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CHIEF O'GUIN: How do y'all want to put the verbiage for the Board test?

CHAIRMAN MORELOCK: So you're asking, so would we just say "All other clearance requirements set forth in Board Case 9803," instead of having what Mr. Bailey said? If you put the rule in there, it's going to be three-feet?

CHIEF O'GUIN: Right.

CHAIRMAN MORELOCK: So the third bullet would just read "all other clearance requirements as set forth in Board Case 9803," to give you the 18-inches? Because what it says is, "Is it required for potable water storage heater, hot water heater unfired, pressure vessels to adhere all three-foot clearance requirements set forth in the Rule," and then it says that "It's opinion of the Board that the potable water storage heater, not water heaters that do not exceed the heat input of 400,000 BTU per hour and unfired pressure vessels that do not exceed 50 square feet measured by diameter by length are exempt from the clearance required 0800-3-3.04, which is, you could update that to the current Rule, I'd have to look that up. Providing the name plate and code stamping are in view or as

stated by the Rule, there's a minimum clearance at least one and a half feet between all sides." And so, in your case it's going to make it one side zero, the other three are 18.

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MR. BAUGHMAN: One thing just came to mind too, Lochinvar made them at one time, was the storage heaters that then had the storage tank that had the heater mounted on top of it, that would not qualify under this particular installation, for one, because we've got more, this is a cylindrical-type water heater, whereas the other one is a cylindrical storage tank with a copper fin or square-type of heater mounted on top of the tank, it wouldn't qualify so much as a storage-type water heater, so I just thought about that because as we repair those units and we've got to get in to do inspections on the back side looking at the draft in a smoke box and looking at the heat exchangers and so forth, if that unit were clearance on the side, not so much the back, but if we said it's got zero clearance on one side and we put it up against the wall, it may be against the wall where we can't service it properly and So, this is applicable to this type of so forth. storage water heater, but I would not say it's applicable to the storage-type water tank, i.e., storage tank with the heater on top of it. Your thoughts?

MR. KLEISS: The way that we would look at the top (unintelligible) here is that in our manuals, we have recommended because of what you're talking about because of serviceability for different parts of the water heater, in fact, we call out needs to have clearance from the temperature pressure relief valve, so to your point, if there were parts that required service on that side, then that's how we'd still address that, I would content that it still falls into (inaudible) two years ago.

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MR. BAUGHMAN: Because I know the name plate on those units is usually on the side, and having those by chance that that was what the contract reviewed as having lower clearance than the 18-inches, it would be difficult for an inspector to get in and look at that name plate versus these that has the name plate virtually right on the front of it, all the data, BTUs and what have you is viewable from the front, whereas on those other units, they're mounted on the side, they're not on the front of the unit, so I just wanted to bring that up for some interpretation and input.

CHIEF O'GUIN: Basically, 9803, in that Board Case, it says "providing name plate and code stamp is in view, as stated in 0800," so they can put the name plate against the wall.

1	MR. BAUGHMAN: Well, that's typically the
2	same side the relief valve is on, but there again, those
3	things can change, so if it's not within the realm of, I
4	just got to thinking about that, it's a different
5	configuration than what we're thinking looking at with
6	that heater mounted on top of the storage tank itself,
7	so I just wanted to bring that up, just food for thought
8	I guess. I wouldn't be necessarily advocate even on one
9	side because I can't get back to the rear smoke box. I
10	can't that rear smoke box itself is just something we
11	get in and look at and we can actually view the heat
12	exchanger if need be from the back looking over the top
13	with an optic means and so forth, still they got means
14	to be able to get around and look at it, I'm okay with
15	that, but that's a different configure than what we're
16	talking about.
17	CHAIRMAN MORELOCK: Any other questions or
18	comments?
19	(No verbal response).
20	CHAIRMAN MORELOCK: Do I have a motion?
21	MR. BAUGHMAN: Move to approve as written in
22	the amended and notes taken.
23	MR. BOWERS: Second.
24	CHAIRMAN MORELOCK: All right. All in favor
25	say "aye."

1	(Affirmative response)
2	CHAIRMAN MORELOCK: Opposed?
3	(No verbal response).
4	CHAIRMAN MORELOCK: No opposition.
5	Abstentions, no voting?
6	(No verbal response)
7	CHAIRMAN MORELOCK: Gentlemen, it's
8	approved. Okay, so that takes care of rule case
9	interpretations. Moving on down to open discussion
10	items, which is
11	Mr. Baughman's item and we are going to -
12	MR. BAUGHMAN: Mr. Chairman, I would like to
13	propose that we table this open discussion item for the
14	December meeting, if that's acceptable?
15	CHAIRMAN MORELOCK: Okay. All right,
16	that'll be fine with us. So that item will be tabled
17	until the December '21 meeting.
18	CHIEF O'GUIN: Chairman?
19	CHAIRMAN MORELOCK: Yes.
20	CHIEF O'GUIN: Can we work on that
21	discussion item he's talking about until the December
22	meeting so we don't have such a long discussion in the
23	meeting on that, as long as we don't make a decision
24	outside of the meeting?
25	MR. BAILEY: Right, I mean, it could be

ideas on discussion items such as that can be exchanged back and forth through e-mails, things like that, conference calls, just that once it's going to be deliberated on and some kind of action taken, then it's got to be an open forum. But having like a subcommittee meeting or a task force work on one particular issue so you can narrow it down, that's perfectly, you know, proper.

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MR. BAUGHMAN: Appreciate that, Chief, thank you.

CHIEF O'GUIN: Everybody should have a copy looks like this, one for the low-pressure E-Stops, that's what I sent out to the Master Board open to other jurisdictions, see how they, if y'all look at it before now and December meeting, we can make a decision, thank you.

takes us to the announcement of the next meeting and that next Board of Boiler Rules will be held on December 15, 2021 at 9:00 a.m. at the Department of Labor. That takes us to the last item on the meeting, which is adjournment. So thank you all for a long day. Thank ya'll for lunch and thank you for the great conversation and discussion.

(Whereupon, these proceedings were adjourned.)

1	CERTIFICATE
2	STATE OF TENNESSEE)
3	COUNTY OF DAVIDSON.)
4	I, Lisa M. Finch, a Notary Public in the
5	State of Tennessee, do hereby certify:
6	That the within is a true and accurate
7	transcript of the proceedings, to the best of my
8	ability, taken before the Board and the Chief Inspector,
9	Tennessee Department of Labor & Workforce Development,
10	Division of Workplace Regulations and Compliance, Boiler
11	Unit, on the 15th day of September 2021.
12	I further certify that I am not related to
13	any of the parties to this action, by blood or marriage,
14	and that I am in no way interested in the outcome of
15	this matter.
16	IN WITNESS WHEREOF, I have hereunto set my
17	hand this 29th day of September 2021.
18	
19	Lisa M. Finch
20	LISA IVI. I IVICIL
21	Lisa M. Finch, LCR #539 Notary Public at Large
22	My Commission expires: 7/18/2023
23	
24	

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