QUARTERLY MEETING OF THE
STATE OF TENNESSEE
BOARD OF BOILER RULES

December 12, 2018
APPEARANCES:

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

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

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AGENDA

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CHAIRMAN MORELOCK: Good morning, everyone. We are very thankful that you have survived the earthquake and the snow and everything to get here. So we want to welcome you to the December Tennessee Board of Boiler Rules meeting.

I am going to call this meeting to order. And if you don't have an agenda, they are on the back table, so please make those available to yourself if you would like one.

So I think everybody is in place now so we will begin with introductions and announcements. And so, first of all, the first announcement would be a safety item. In the event that we have an emergency or a natural disaster, security personnel will take us to a safe place either inside the building or they'll direct us to exit the building on the Rosa Parks side.

I would also ask, out of respect for the presenters and the people in the audience that would want to participate in the discussions that you would silence your cell phones. Put them on vibrate or silent.

And so then with that, I will begin with Cassandra and we'll do introductions.

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

MS. PAIGE: Ebony Paige, Assistant Board Secretary.

MR. O’GUIN: Chris O’Guin, Deputy Boiler Inspector.

MR. CHAPMAN: Sam Chapman, Chief Inspector.

MR. BOWERS: Harold Bowers, Board Member.

CHAIRMAN MORELOCK: Brian Morelock, Board Member.

MR. BOWERS: Harold Bowers, Board Member.

DR. HARGROVE: Keith Hargrove, Board Member.

MR. FOX: Terry Fox, Board Member.

MS. JEFFERSON: Kim Jefferson, Assistant Commissioner.

MR. BAILEY: Dan Bailey, legal counsel.

MR. ROBINSON: Eugene Robinson, Cincinnati Insurance.

MR. TOTH: Marty Toth,
ECS Consulting and the Boisco Training Group.

MR. DEATON: Julius Deaton, Fort Sanders Regional Medical Center.

MR. SWANSON: James Swanson, Ft. Sanders Regional Medical Center.

MR. CAMPBELL: Mike Campbell, Claiborne Medical Center.

MR. YEARY: Larry Yeary, Claiborne Medical Center.

MR. CORVIN: Paul Corvin, Maury Regional Medical Center, and my wife, Wanda.

MR. NEVILLE: James Neville, Neville Engineering.

MR. RYAN: Mike Ryan, Deputy Boiler Inspector.

MS. RHONE: Deborah Rhone, Boiler Office Supervisor.

MR. BAUM: Scott Baum, Hartford Steam Boiler.

MS. KIRBY: Lynn Kirby, Department of Labor and Workforce.

MR. LOGGINS: Patrick R. Loggins, University of Tennessee, supervisor of the boiler operation.

MS. BARNETT: Doris Barnett, Department of Labor.

MR. GOLDEN: James Golden, StoneCrest Medical Center.

MR. KELLEY: Greg Kelley, Boiler Supply Company.

MR. GROSS: Jeremy Gross, chief inspector at the Valero Memphis Refinery.

MR. JOSHI: Fracad Joshi, Wacker Charleston.

MR. SHIELDS: Scott Shields, Toyota Production Engineering.

MR. HIPP: Jeremy Hipp, Wacker Polysilicon.

MR. ENG: Richard Eng, Wacker Chemical Corp.

CHAIRMAN MORELOCK: Thank you.

There will also be an attendance sheet that will be sent around, so please make sure you sign in on that as well.

Continuing on with announcements, Assistant Commissioner Jefferson and Sam Chapman and myself, along with some other folks from the boiler unit, back in October, we attended the Sunset hearing. And do you want me to report the results?

MS. JEFFERSON: Yes.

CHAIRMAN MORELOCK: Okay. It's great news. I didn't want to take it away. But we are very pleased that there was a finding on the Board, but we've addressed that finding -- or an observation, I guess, more so than a finding. But anyway, with that said, the subcommittee did vote to allow us to continue for another four years.

And I thought that was very interesting, because typically, it's a three-year, so we were very thankful for that. And so thanks to everybody that all of you-all made this happen. So it wasn't just one individual. So we appreciate the teamwork and the hard effort to successfully complete that process.

Another announcement -- is Doris Barnett going to make her presentation?

MS. JEFFERSON: Yes. Open discussion, maybe?

CHAIRMAN MORELOCK: Okay. All right. We'll have a presentation during the discussion items, so we'll move that to that.

Just a little bit of information for the board members. Typically, we have, in the past, signed conflict of interest forms at the December meetings, but we've been asked to sign those forms in the current year. So we will move that out to the March meeting, that we'll sign conflict of interest forms.

Are there any other announcements that we need to make during this time?

(No verbal response.)

CHAIRMAN MORELOCK: Okay. Moving on to Item 3, which is Adoption of the Agenda, does anyone have any additions or deletions or changes to the agenda before we vote on it?

MS. JEFFERSON: The only item is, for open discussion, we'll add Doris Barnett.

CHAIRMAN MORELOCK: Yes. So we will add Doris Barnett to the discussion items.

MR. TOTH: Mr. Chairman?

CHAIRMAN MORELOCK: Yes?

MR. TOTH: Lucite, Item 18-14 -- has decided -- has requested to be tabled until the March 2019 meeting, please.

CHAIRMAN MORELOCK: Okay. Thank
you, Mr. Toth. And Mr. Toth was gracious enough to send us an email on November 26th to let us know that that would be moved to the March agenda. So, so noted on that item, that that will be removed from our December agenda and added to the March 2019 agenda.

We do have another item under Section 7 for old business. This item was tabled at the September 19th meeting and moved to the December meeting. However, due to weather conditions in East Tennessee, ETSU contacted the chief inspector and said they would be unable to make it. So we will move their item, which is 18-08, that will be moved to the March 13th meeting. Are there any additional changes or comments about the agenda?

Mr. Neville: The UT Health Science, has that been distributed, a variance request for UT Health Science?

Chairman Morelock: That item was not placed on our agenda. The board members have not reviewed the manuals.

Mr. Neville: I understand.

Chairman Morelock: We've not received the manuals, so what we need to do is just put that on the March agenda as well. Okay?

Chairman Morelock: All right. Hearing none, do I have a motion to accept the modified agenda?

Mr. Fox: I'll make a motion to accept.

Chairman Morelock: Do I have a second?

Dr. Hargrove: Second.

Chairman Morelock: Any discussion? Abstentions? Not voting?

Chairman Morelock: Any negatives?

Chairman Morelock: Okay. So we have an approved agenda. So thank you.

Moving on to Item 4, which is approval of the September 19th meeting minutes. And that will also include the approval of the August 8th meeting minutes due to what we discussed at the September -- the August minutes were not ready for review, so we voted, in September that the August and September minutes would be voted at the same time. So I hope you've had an opportunity to look at those minutes. Are there any comments about those minutes?

(No verbal response.)

Chairman Morelock: I just want to say to all of our court reporters, it's a huge task to get everything we say transcribed into writing. And the only thing I have -- everything is transcribed -- you know, the only thing we could say is there may be some items that maybe need to be capitalized, but the content is on track. I will say, since I am from East Tennessee, sometimes we're hard to understand, so when you look at the September minutes, on page 54, there was a term in the September minutes called "Newson strips." But it really should be a "nuisance trip." So we apologize from East Tennessee. We'll try to enunciate better.

Is there anything else? Do I have a motion to accept the August and the September meeting minutes?

Mr. Baughman: Motion to accept.

Chairman Morelock: All right. Any more comments or discussion?

Chairman Morelock: All right. Those in favor of approval of the August and the September minutes, say "aye."

(Affirmative response.)

Chairman Morelock: Any opposition, negative votes?

Chairman Morelock: Any abstentions? Not voting?

Chairman Morelock: We have approved minutes for August and September, so thank you for that.

Moving on to Item 5, which will be our chief inspector's report, so I will turn this
Chief Inspector Sam Chapman.

MR. CHAPMAN: Thanks. Okay.

Number of inspections by state inspectors is 2,775; insurance inspectors, 5,375; giving us a total of 8,150. Total delinquent number of vessels, 70,135; state inspectors 1,341; insurance inspector is 539; giving us a total delinquent of 1,880.

Number of code violations found was 31. Uncorrected code violations is one.

Variance report will be performed by Chris O’Guin. This report was from July through September of 2018.

CHAIRMAN MORELOCK: Okay.

MR. CHAPMAN: Thank you.

CHAIRMAN MORELOCK: Any questions of Chief Chapman's report?

(No verbal response.)

CHAIRMAN MORELOCK: Okay. Thank you, gentlemen.

That will take care of Items 5 and 6. That will take us to Item 7, which is old business, and that's the East Tennessee State University. And since they are not here and requested to move that to the March agenda, the only comment I would make on this item is that, to the board members who have reviewed that manual and have comments, I think it would be very efficient if we would go ahead and send those comments to East Tennessee so that they can consider those to update their manual before we review it in March. Okay?

MR. BAUGHMAN: How should we submit those comments?

CHAIRMAN MORELOCK: I’m going to submit them to the boiler unit, to Chief Inspector Sam Chapman.

MR. BAUGHMAN: Do we need to submit our own comments to you to forward on to him?

CHAIRMAN MORELOCK: You can copy me. That way I’ll have them.

MR. BAUGHMAN: Okay.

CHAIRMAN MORELOCK: Is that okay with everyone.

(Affirmative response.)

CHAIRMAN MORELOCK: All right.

Thank you.

Okay. So moving on -- we have no more old business, so moving on to Item 8, which is new business, our first item is 18-10, which is Valero Memphis Refinery, who is going to provide a Risk-Based Inspection program update.

And I will say, while Jeremy is coming to the table, when your item comes up, please come up to the table here to present your item. Speak clearly into the court reporter's recording device so she can capture all your statements.

And I’ll turn it over to you, Jeremy.
was completely re-circuitized and key parameters were updated. Decided to not have any scheduled major maintenance outages for 2018. Extensive planning efforts are ongoing for our 2019 major maintenance outages. You see Table A on the next page for our inspection activities completed in 2018 and scheduled for 2019. The majority of the items listed in 2019 will be complete in the scheduled major maintenance outages. We do also have two hydro-treater units that will undergo reactor catalyst change-outs. We will execute other inspections at that opportunity. As far as Table A, in 2018, we performed 40 internal inspections and we have 205 planned for 2019. There's quite a bit of work planned for next year. External inspections completed in '18 were 159, and then we have 302 scheduled for 2019. CUI inspections completed in '18 were 21, and 20 scheduled for '19. Jurisdictional inspections completed, 206, and we have 197 scheduled for the 2019 calendar year.

visual inspections, our thickness monitoring data, assigned damage mechanism inspection results, and our inspection scheduling are integrated in our RBI module.

You can see the Risk Data and Distribution in the graph below, looking at our circuits from the 2017 report, as well as what changed from the 2018 inspection activities. Overall, 40 internals were completed, 159 externals, and 21 CUI were performed this year in accordance with our program. Our damage mechanism specific inspection activities decreased risk on 96 circuits in the 2018 calendar year. We are current on our jurisdictional inspections, and we are also currently executing quite a bit of insulation and fireproofing repairs within our facility.

What questions do you have for me?

CHAIRMAN MORELOCK: Jeremy, since we have some new board members who probably may not have heard your report before --

MR. GROSS: Sure.

CHAIRMAN MORELOCK: -- I don't want you to give a big, long presentation, but because of this RBI program, how has that allowed you to extend internal inspection frequencies?

MR. GROSS: Yeah. It's been a big key for our facility. We're the only oil refinery in the state of Tennessee, in this area, actually, as far as in the Southeast, until you get down in the Gulf Coast. But with limited internal inspection frequency maximums, the State of Tennessee allows us to have a maximum frequency. So does our corporation. So that helps us know, with risk-based inspection, the State of Tennessee allows us to have a maximum frequency. So does our corporation. So that helps us schedule our internal/external nonintrusive inspections based on when damage mechanisms come due, versus having to take our outages every two years.

So from a reliability standpoint, we're able to maximize internal inspection schedules, budgets, and then turnaround activity on major maintenance outages in a very efficient way.

DR. HARGROVE: Question.
MR. GROSS: Yes, sir?

DR. HARGROVE: The increase in internal inspections from 2018 to 2019 is rather significant. Can you describe or is there any manpower or personnel requirements or changes, as required, to make that -- or increase that frequency for 2019?

MR. GROSS: Yes, sir, there is. So for our major maintenance outage, I'll have 106 people that will be working on inspection pass during that outage. That's a 54-day outage that we'll be executing at that time. It's got five process units that have all these inspection activities that will occur. So we'll execute those in that 54-day window.

We will also maximize efforts on discovery work. So at our site, one of my policies is we complete all CML inspections 12 months in advance of your major turnaround. So we limit the discovery items, maybe, by finding a nozzle that was inspected four years ago with a UT thickness, and if corrosion rates increased, we don't get an uh-oh in our outage, so we're able to forecast repairs better. However, executing the inspections, we still have to increase our manpower.

Current staff at my site that I manage is 28 people that do day-to-day inspection activities year around. But during major turnarounds like that, I may have staff up to between 100 to 150 people, depending on the inspections that are coming due.

DR. HARGROVE: Thank you.

MR. GROSS: Yes, sir.

CHAIRMAN MORELOCK: Any questions or comments from the Board or from the visitors?

MR. BAUGHMAN: I would like to ask Jeremy a question.

Did you have any unplanned outages this year?

MR. GROSS: So we had a heater that we had to do some pigging from a decoking standpoint. So yes, sir, we actually did. We brought in a company to decoke the heater. We actually had to replace some tubes at that time, and we followed, you know, the requirements by the Board. Those are Tennessee Special items, and we did R-1 code reports on those heaters -- on that in-particular heater.

MR. BAUGHMAN: How did it fall within the RBI program, as far as -- since it came up as an unplanned and it had repairs, how did it fall within the inspection program?

MR. GROSS: So actually did what's called a smart pigging technique on that heater, as well, to gather 360-degree volumetric thickness measurements for every tube in a heater, so that goes into our data management system. We use those corrosions to help drive our next inspection.

We replaced nine tubes in the heater. At that time, two of those were due to significant fouling that the pigging company could not get out, so to lower our tube skin temperature for the next production run, we were going to go ahead and cut those tubes out anyway.

So that data goes in, David, and then we'll actually grade that inspection. So we did a hundred percent in effectiveness of an A-level inspection. And that helps us forecast our inspection frequency.

MR. BAUGHMAN: Super. Thank you.

CHAIRMAN MORELOCK: Any other questions?

(No verbal response.)

MR. BAUGHMAN: Do we have any conflicts?
CHAIRMAN MORELOCK: Oh, thank you.

Thank you.

Any conflicts of interest for this item?

(No verbal response.)

CHAIRMAN MORELOCK: None. So do I have a motion?

MR. FOX: I'll make a motion to accept the program.

CHAIRMAN MORELOCK: Okay. Do I have a second?

MR. BAUGHMAN: Second.

CHAIRMAN MORELOCK: Thank you. Any additional comments?

(No verbal response.)

CHAIRMAN MORELOCK: All in favor say "aye."

(Affirmative response.)

CHAIRMAN MORELOCK: Opposed?

(No verbal response.)

CHAIRMAN MORELOCK: Abstentions, not voting?

(No verbal response.)

CHAIRMAN MORELOCK: You have an approved RBI program.

...
of which is the shell, the tube, and the head. So that's why the component and the equipment quantities are different.

At this point, I would like to turn it over to the Board for any questions on our 2018 inspections and our 2019 planned inspections and our current risk ranking of our facility.

CHAIRMAN MORELOCK: What questions does the Board have?

DR. HARGROVE: With regard to your internal inspections and to, I guess, minimize risks, what was the logic between -- with regard to roughly the same amount of internal inspections for 2018 to 2019?

MR. ENG: In the Meridium, the recommendation so far in all of our pressure vessels -- it's a brand-new facility and they kick out these recommendations going out 5, 10, 15 years, which we're not there yet. In API 510 and 570, which we follow currently, the inspection frequency is sooner than the Meridium recommendation. And we're not there yet as well.

These inspections are predominately inspections that are available to us due to scheduled down time, due to replacement, due to other reasons. We just have an opportunity to do these internal inspections.

So in 2010, we have ten, maybe a few more. And we anticipate similar inspections going out into 2019, perhaps a few more.

DR. HARGROVE: Mr. Chairman, I would like to recommend that the number of inspections definitely increase.

You list a range, from 10 to 20. So it's possible you did 10 in 2018 and it's possible you could do 10 in 2019. I would suggest, with regard to this type of risk-based inspection, that you do at least twice that. So I would like to recommend that at least 20 internal inspections are done with regard to this type of inspection program.

MR. ENG: It's likely to exceed that, but we're not sure these inspections become available if the equipment doesn't go down. It is still sooner than the recommendations on Meridium, and it's also earlier than API 510 and API 570 requirements. But yes, I can take your note on that and we're likely to exceed that.

CHAIRMAN MORELOCK: Well, to speak to Dr. Hargrove's comment and recommendation, based on what Wacker is doing, since it is a new facility, they did their thickness monitoring and all that on brand-new equipment and put it into service. They're bound by the inspection requirements of Tennessee rule and law to do that internal every two years.

Their intent is potentially twofold. One would be to deem the equipment in noncorrosive service, which if they prove that through their RBI program, then they can approach the boiler unit and Chief Inspector Chapman and say, "We have data to show that this equipment is in noncorrosive service; therefore, based on Tennessee Code Annotated 68-122-110, the law says, in noncorrosive service, you do not have to do an internal inspection. It's strictly an external inspection. So that's one leg of that."

The other leg of that would be if you can't satisfy -- if Wacker can't satisfy that requirement, then they have the option to extend that two-year internal to something else that they would determine through their analysis.

Does that make sense?

DR. HARGROVE: It does. But statistically, for the organization, it just seems to me --

CHAIRMAN MORELOCK: With the total pieces of equipment, yes.

DR. HARGROVE: Yeah. Okay.

CHAIRMAN MORELOCK: So, I guess, from the standpoint of your program, right now you're operating under the two-year internal requirement, correct?

MR. ENG: That's correct.

CHAIRMAN MORELOCK: So when will your program be fully implemented with RBI?

I guess that would probably answer your question better.

DR. HARGROVE: Exactly.

CHAIRMAN MORELOCK: Because I'm certain that you're probably looking -- you've got a lot more than ten pieces of equipment you're doing internals on.

MR. ENG: We have hundreds. Yes, we do.

CHAIRMAN MORELOCK: I think that's your question.

MR. ENG: There are many opportunities to do more than 20.
what would that look like?

MR. ENG: To answer your question, Mr. Chairman, our RBI program that we want to validate --

CHAIRMAN MORELOCK: Yes.

MR. ENG: -- would take anywhere between six to ten years, is my thinking.

CHAIRMAN MORELOCK: Okay.

MR. ENG: And we're only in about four years of operation today, so we are still validating our RBI program internally as well as for the board members.

CHAIRMAN MORELOCK: Yes.

So does that answer your question, Dr. Hargrove?

DR. HARGROVE: Yes, it does. Not the conclusive, though.

CHAIRMAN MORELOCK: Right. Well, it's a growing process with Wacker.

Any other questions?

MR. BAUGHMAN: Yes.

Richard, who currently performs these inspections?

MR. ENG: All of these internal inspections are done in-house at the moment. We have API 510 certification internally. And there are some inspections where we would actually ask our sister plant in Germany to assist.

CHAIRMAN MORELOCK: Okay. So -- but from the State of Tennessee for an inspection, it's either going to have to be an AIA, an owner-user, or the state for an official inspection for your certificate of operation.

MR. ENG: Okay.

MR. CHAPMAN: Yes. That's it.

MR. BAUGHMAN: So the next question I'd have, Richard, is how many vessels do you have that are going to require inspections?

MR. ENG: For 2019 or forever?

MR. BAUGHMAN: Just for now. In other words, what I'm getting at is how many vessels we're going to have. If these are going to be state inspections, and we've got ten vessels or we've got a thousand vessels, how we're going to incorporate that in manpower-wise to actually get that accomplished. Same thing with insurance. If it's an insurance inspector, how is that actually going to take care of manpower-wise?

MR. ENG: We understand that quite well.

DR. HARGROVE: Yes, it does. Not the conclusive, though.

CHAIRMAN MORELOCK: Right. Well, it's a growing process with Wacker.

Any other questions?

MR. BAUGHMAN: Yes.

MR. BOWERS: So you really haven't defined how many jurisdictional vessels that you actually have right now, correct? Is that what I'm looking at?

MR. ENG: When you say "jurisdictional," for the State of Tennessee requirements?

MR. BOWERS: Correct.

MR. ENG: We have over 780 vessels registered with the State of Tennessee.

MR. BOWERS: And those 780, you haven't defined how many that were corrosive atmosphere compared to noncorrosive yet.

MR. ENG: Out of the 780, we have a representative sample of thickness measurements that we feel are in the most severe condition. And we submitted those to the Board for review several years ago on our methodology. And that approach was accepted.

I'll give an example. We have five trains in an area called HCI recovery. And these trains are identical in operation. Typically, only two or three trains are required to maintain production. The fourth train is a capacity spare train, and the fifth train could be a train that is typically down for either inspection, repairs, modifications. And these will be rotated accordingly so that we can meet our inspection programs.

That's the way the plant has been designed predominantly and through the entire facility. So we have the luxury of shutting down certain trains for the purpose of inspection or repairs.

MR. BOWERS: Well, what I'm looking at, as an inspector going to your plant to inspect, you've got 700-something jurisdictional objects, and these are registered as unfired pressure vessels --

MR. ENG: That's correct.

MR. BOWERS: -- how does that inspector know which ones fall into a class of...
external inspection only? Or these certain objects don't fall into that class; they fall into a class needing an internal inspection.

MR. ENG: I think all pressure vessels will require an internal inspection eventually. So it's either 10 years, based on API, or something beyond 10 years based only RBI recommendation. So that's how we know.

CHAIRMAN MORELOCK: So just to add to that, as you work through these 780 registered vessels with the State of Tennessee, if you do have trains where everything is identical, yes, the Board would discuss and I would say they would approve if the metallurgy is the same, the temperature, the pressures, operating conditions. But if you do any management and change work to any of those trains, you're going to have to go back and reevaluate.

MR. ENG: That's correct. That's our intent, and that's our requirement.

CHAIRMAN MORELOCK: And so then it becomes -- we've not gotten to the stage as a board yet where Wacker has come to us and said, "We are requesting to extend an internal inspection frequency to a number beyond the two years yet. Okay? So again -- so we've got new board members, so we have not approved any extended inspection frequencies yet. We agree with your methodology, but we have not actually made any approvals of extension of internal inspection frequencies. Does that clarify things a little bit?

MR. BAUGHMAN: It does.

The one thing that comes to mind, Richard, is just the logistics of inspecting 780 jurisdictional vessels and how that's going to be communicated back to the State, whether the State is going to be inspecting them, because then the boiler unit is going to need to be well-advised of that. From a manpower-wise and just running the math out on it, it's a lot of time for an inspector to be at your facility taking care of other duties also. And right now, manpower is kind of at a premium within our unit.

So moving forward, this just needs to be communicated fairly soon, as these inspections come due and so forth on there.

I don't have the answer, but I know that it just needs to be brought up and discussed so that everybody is on the same page and is able to address it.

MS. JEFFERSON: I just have a question. Is it possible for some of the vessels to be placed on intervals to be actually inspected intervals, or is it necessary that all of them be performed at the same time? Because if all of them are performed at that same time, as you said, that would put a burden on the State if the State is required to perform all those inspections.

CHAIRMAN MORELOCK: So the key is are all the trains operating at the same time?

MR. ENG: No.

CHAIRMAN MORELOCK: Okay. There's your answer. So as a train comes online and becomes active, that two-year clock starts. When they shut down a process, then they can let the State know that that train or those vessels are inactive. But then they would have to be inspected before it goes back into service. But if they're on a continuous service, if what Baughman said is true, you would have 780 vessels potentially that you would be inspecting every two years. So that's where their program will have to detail what that's going to look like for us.

MR. ENG: If I may clarify something. Not every part of the plant has a spare train on idle. For instance, another part of the plant, we have four trains, but they rotate these four trains. Okay? So all trains could be running at the same time. The one train individually can always come down for repairs and inspections and modifications. So if that clarifies your question there.

The other part is that -- an example of a filter that we have is registered with the State. We have ten filters, and we registered ten vessels. If these filters are all on the same application, identical in design, identical in metallurgy, if we conduct one internal inspection, we are using the methodology that that inspection applies to all ten. And that was the approach that we took to determine inspection frequencies.

CHAIRMAN MORELOCK: Hold on.

Deborah had a question.

MS. RHONE: Oh, no. I was just going to say I believe Tommy Spangler is the state inspector that performs most of the inspections with Wacker, and yes, Tommy does inspect them in intervals. Normally, we receive inspection
reports either weekly or biweekly of different vessels that have been inspected. So no, they're not inspected all at the same time.

Mr. Eng: He comes out, I would say, not quite weekly, but every other week he's on our site.

Chairman Morelock: Mr. Bowers, you had a question.

Mr. Bowers: Well, I think that answered it. I was going to ask if it's covered by an insurance inspector or a state inspector.

Mr. Eng: Oh, yes. State inspector comes out regularly.

Mr. Baughman: So taking the example of the ten filters all being identical on the same process, but how do we know that one isn't utilized more than the other? In other words, are they all ten online at the same time taking the same load, or does one filter have more use than another and so forth?

Mr. Eng: I mean, that's a good question. Maybe all ten are not being used a hundred percent, all the time. We would take the worst-case situation, the highest use in the worst possible environment.

Inspectors are APS inspectors. Are they also certified to the National Standard —

Mr. Eng: No.

Mr. Robinson: No credentials at all?

Mr. Eng: No, not in our facility.

Mr. Robinson: So no SNT-TC-1A or nothing?

Mr. Eng: I don't think so. But we use an external company to do all of our NDT.

Mr. Robinson: X-ray?

Mr. Eng: Yes. Everything we do is external certified.

Mr. Robinson: Perfect. Thank you.

Chairman Morelock: But as an owner-user, for an owner, you will need to make sure that there's --

Mr. Eng: Certifications up to date.

Chairman Morelock: And you'll need copies of all that.

Mr. Eng: Yes, we do. We have those.

Chairman Morelock: So you have it.

Okay.
equipment 1, 2, 3 so you can --

1. equipment 1, 2, 3 so you can --
2. MR. HIPP: Yeah. We have a
3. consequence of failure and a probability of
4. failure that we go through.
5. MR. ROBINSON: Perfect.
6. MR. HIPP: So we're calculating a
7. probability of failure based on design and we
8. process information and consequence, of course,
9. based on fluid categories, things like that and
10. operating pressures and --
11. MR. ROBINSON: Very nice. And
12. then, naturally, removing the probability of
13. failure by increasing inspection, or --
14. MR. HIPP: Yes. Well, right now
15. our probability, since everything is new, is low,
16. so we're just trying to keep it low, is our --
17. MR. ROBINSON: Keep it there. Very
18. nice.
19. CHAIRMAN MORELOCK: And so that
20. methodology is coming from API 580 and 581?
21. MR. HIPP: Yes, sir.
22. CHAIRMAN MORELOCK: Okay. So just
23. to kind of wrap this up, Wacker is currently doing
24. internals on the two-year schedule. They're
25. trying to build an RBI program to accomplish one

of two things, either a noncorrosive service
2. and/or an extension of internal inspection
3. frequencies. So as they gather their data,
4. they'll come back to the Board with a proposal.
5. They're just giving us an update of where they're
6. at in the early stages of a new facility. Okay?
7. DR. HARGROVE: Mr. Chairman, is
8. there a date when this period ends?
9. CHAIRMAN MORELOCK: Well, I mean,
10. as long as they're doing their internals every two
11. years, they can go as long as they want to.
12. MR. BAUGHMAN: Deborah Rhone
13. mentioned that Tommy Spangler was the current
14. inspector, jurisdictional inspector, for the State
15. of Tennessee, coming into the facility. How many
16. inspectors -- and he's there weekly, biweekly,
17. once every two weeks. How many vessels is he
18. inspecting each time he comes out?
19. MS. RHONE: Usually, it's between
20. 20 and 35 when he comes in for his visit.
21. MR. BAUGHMAN: Okay. So he's doing
22. 20 to 35 vessels per visit.
23. MS. RHONE: Now, it may not be that
24. same day, you know.
25. MR. BAUGHMAN: Okay. Maybe during

the week?
2. MS. RHONE: Right. It was during
3. the time frame that when we received those -- the
4. information, the inspections, yes.
5. MR. BAUGHMAN: Okay. I was just
6. extrapolating the numbers out to kind of look at
7. Mr. Spangler's time involved and the number of
8. vessels per inspection, the amount of time taken
9. per inspection, to properly inspect a vessel. So
10. thank you.
11. CHAIRMAN MORELOCK: Well, so to go
12. back to your report, internal inspections
13. performed in 2018, is it really ten or is it more
14. than ten?
15. MR. ENG: I would say more than
16. ten. Perhaps even more than that.
17. CHAIRMAN MORELOCK: Okay. So I
18. guess a recommendation from the Board would be go
19. back with all this information, and you may want
20. to update your report to see where you're really
21. at.
22. MR. ENG: Yes, sir.
23. CHAIRMAN MORELOCK: And that
24. will -- and then plan for 2019. That probably
25. will be a bigger number, too.

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2. and/or an extension of internal inspection
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23. CHAIRMAN MORELOCK: And that
24. will -- and then plan for 2019. That probably
25. will be a bigger number, too.
certificate of operations. So anyway -- but the point is when you're running a train, you need to make sure everything that gets pressured up has got valid, current certificates so you can safely operate it.

MR. ENG: That's our requirement as well as yours.

CHAIRMAN MORELOCK: Okay. Any other questions or comments?

MR. BAILEY: Conflicts?

CHAIRMAN MORELOCK: Thank you. Any conflicts of interest?

MR. BOWERS: Second.

CHAIRMAN MORELOCK: Any additional comments?

MR. BAILEY: Conflicts?

CHAIRMAN MORELOCK: All in favor say "aye."

7 days a week. They provide high-pressure steam for space heating, potable water, sterilizers, humidification, and cooking.

Our site plan on page 2 shows the location of the power house in relation to the remote station, which will be at the PBX operator's office.

The individuals involved in this variance at the remote station will be the PBX operator. They will be responding to boiler alarms and be involved in testing that circuit every shift.

As far as the boiler attendants for the facility, we list those on page 7 so that the director of plant operations, HVAC supervisor, lead boiler operator, and the maintenance mechanic, are the four positions that have been assigned for that. Their job description is in Appendix G.

The boiler on Appendix A, at the time of this printing, the Tennessee number for Boiler 1 was pending. We do have that Tennessee number now, and I can give it to the Board. It's T111578.

The Boiler Number 2 was an existing boiler which had been on a previous variance, but the controls were upgraded on this to the Hawk1000 control system. So that has been updated, but this is considered a new variance for both due to, one, the new boiler and the new controls on Boiler 2.

Are there any questions? Do you have any questions?

CHAIRMAN MORELOCK: I'm going to open the floor for discussion. So what questions do you have?

MR. FOX: I've got a question on the Hawk --

MR. BAILEY: I'm sorry. I think you need a motion to discuss and whether there's any conflicts before the discussion.

CHAIRMAN MORELOCK: Okay. I'll do that.

So I need a motion to discuss this item.

MR. BAUGHMAN: So moved.

CHAIRMAN MORELOCK: Second?

MR. BOWERS: Second.

CHAIRMAN MORELOCK: All right. Any conflicts on this item?
MR. BOWERS: Maybe. I think we insured them.

CHAIRMAN MORELOCK: Okay.

Mr. Bailey, do you want to know what that conflict is?

MR. BAILEY: Yeah. He said he --

MR. BOWERS: I said we insured them.

MR. BAILEY: If you think there's a potential conflict, you won't be able to vote on the final motion of whether to approve or not to approve. You can participate in the discussion but nothing that pertains to you possibly insuring them.

CHAIRMAN MORELOCK: All right. The floor is open for discussion.

MR. FOX: I have a question about your Hawk controls that are on these boilers. You say they're Hawk1000, correct?

MR. NEVILLE: That is correct.

MR. FOX: So both boilers have --

MR. NEVILLE: Yes, sir, both boilers have O2 trim.

MR. FOX: Okay. So would that not -- I'm familiar with Hawk. Would that not fall under the Hawk4000 instead of the Hawk1000?

MR. NEVILLE: It's my understanding this is the Hawk1000 controller.

MR. FOX: Okay.

MR. NEVILLE: That's the information we were -- Appendix B lists the --

MR. CORVIN: On the newer of the two boilers, which is -- it says Hawk4000. I've got the manual for the new boiler, and I replaced the entire boiler, and it does say Hawk4000.

MR. FOX: Yeah. So that's what I was looking at. If you had the Servos and the O2 trim and all that -- like I said, I'm a little bit familiar with Hawk. That's normally not on the 1000 system. It would have been the 4000 system.

MR. CORVIN: Yes, sir, you are correct.

MR. BAUGHMAN: So, then, are --

MR. NEVILLE: So --

MR. BAUGHMAN: Are we then -- so we don't have the correct hardware in the manual to evaluate, is that correct?

MR. NEVILLE: Right. So the Hawk4000 is on Boiler 1. The Hawk1000 is on Boiler 2.

MR. CORVIN: Boiler 2, that's correct.

MR. NEVILLE: The information will need to be added for the Hawk4000.

MR. BAUGHMAN: Do we have the information here to be able to review for the Hawk4000?

MR. CORVIN: Yes. I've got the entire manual on the Hawk4000 right here. I only have one copy. Would you like me to pass it through?

CHAIRMAN MORELOCK: Yes.

MR. BAUGHMAN: So in reference to the Hawk1000, offhand --

MR. CORVIN: Yes, sir.

MR. BAUGHMAN: -- Appendix B, page B-4, about halfway down, remote setpoint by communications. What does that mean?

MR. CORVIN: Remote setpoint?

There's no remote setpoint. It's all done on the boiler. There's no control away from the boiler. The technicians are only going to respond back from a boiler alarm. And they're on site 24/7, and they respond to any alarms, and then any control changes, if we were to make it, usually not. Usually, my lead boiler operator or I make those changes. And usually, we come -- you know, we always come out and are present with the boiler. And it's on site with the boiler controller.

MR. BAUGHMAN: We do have communications set up with this.

MR. CORVIN: Yes, sir. Hardwired to the switchboard for alarms and shutdown, remote shutdown.

MR. BAUGHMAN: We have no other communications set up via Modbus to enunciate over to a smart phone or a computer or anything on that nature?

MR. CORVIN: With the older Hawk system, we did have a beeper system that would. But we do have remote communications, and it comes to our emails and to our smart phones to every technician. And we get those.

MR. BAUGHMAN: Okay.

MR. CORVIN: And I can be sitting at my computer and get that same alarm as the switchboard gets. Yes, sir.

MR. BAUGHMAN: And that's one of the things I'm trying to figure out.
the issues that we've got to contend with, is that
even though you may not have it set up, we do have
communications in this day and age that can be
hacked. And this particular hardware does have a
remote setpoint capability which just leaves some
concern for down the road. I understand you
wouldn't use it.

MR. CORVIN: We don't.

MR. BAUGHMAN: But could it be
used?

MR. CORVIN: No, sir.

MR. NEVILLE: I don't believe the
ethernet has been hooked up to that.

MR. CORVIN: No, sir.

MR. NEVILLE: It has the capability
of ethernet, but it does not --

Mr. BAUGHMAN: On which one, the
old one or the new one?

MR. NEVILLE: This is on -- the
Hawk1000 is on the old one.

Mr. BAUGHMAN: Okay. Well, he just
mentioned that there was -- I thought it was
hooked up on the old 1000, is what he had said.

MR. CORVIN: On both boilers, we
have the ability to receive the alarm by computer,
but we do not have any way to control it the other
direction.

Mr. BAUGHMAN: Okay. But we do
enunciate back out, you said, via email, so forth.
So there is a communications mechanism.

MR. CORVIN: Internal to the
hospital only; not external.

Mr. BAUGHMAN: Okay. Super.

Mr. BAUGHMAN: Yes, sir. And that's
called the intranet, not the internet. It's not
going out, away from the hospital.

MR. BAUGHMAN: Thank you.

MR. CORVIN: Yes, sir.

Mr. FOX: I would just like to see
a change in the manual, of course, and also
incorporate the 4000 Hawk codes in your main
manual.

MR. NEVILLE: In Appendix B. We'll
do that.

Chairman MORLOCK: I've got just a
few comments. Nitpicky. I apologize. But on
page 1, you state that the difference between the
boiler room and remote station is approximately
350 feet. But when you look at Figure 1, Figure 1
says 580 feet.

MR. CORVIN: 580 feet is correct.

Chairman MORLOCK: Okay. Again,
this is your manual, so we just want to make
you...

The organizational chart in
Appendix D is correct, but it's just kind of hard
to read with that black background. And the text
is pretty small for us aging people.

MR. NEVILLE: We can invert the
colors on this.

Chairman MORLOCK: So you state
that the boilers operate 24/7. And so how is that
handled with your remote and your boiler
attendance? Is it three eight-hour shifts, two
twelves?

MR. CORVIN: We do two twelves.

Chairman MORLOCK: Okay.

MR. CORVIN: And we are checking
the boiler every four hours. Every time they take
a break, they go back to the power plant, and we
actually create an alarm and physically check the
boiler every four hours, regardless of shift. And
so that's something we've been doing for some time
with our boilers, and it works well.

We have a person on site 24/7,

365 days a year.

Chairman MORLOCK: Okay.

MR. CORVIN: And it just frees them
up so they're not logging the boiler constantly.
And the switchboard, if they get any alarm, they
shut down the boiler first. And through their
protocols, as you've seen in the manual, they
notify the boiler technician. And if something
were to happen to him, God forbid, then we have
other people, myself, my manager, that works for
me, and we have a technician on call. And so we
have three other people backing him up. We take
it seriously. We have a great power plant
operation, and they're doing a marvelous job.

Chairman MORLOCK: You say every four
hours somebody is in the boiler room and they
create an alarm for the --

MR. CORVIN: Yes, sir. They either
do the alarm -- they can create the alarm by
snuffing out the sensor, for the flame sensor,
that would create an alarm, or we can blow it down
and create a low-water sense. And so we've got
different ways we can set the boiler off.

Chairman MORLOCK: But you're
physically shutting the boiler off and not doing
just an alarm test.

MR. CORVIN: We do the shutdown beginning of every shift, but don't necessarily shut the boiler down. But we can create an alarm without shutting it down.

MR. BAUGHMAN: You can create a false alarm.

MR. CORVIN: Yes, sir.

CHAIRMAN MORELOCK: Well, on that same vein, if you go to page 5 for your remote monitoring and compare that to page 8 for your boiler attendant, on page 5, under normal duties, you say once each day the boiler attendant will contact the remote station. Would that be once each shift?

MR. CORVIN: Well, it should be once each shift. And it's twice a day because you're doing it at 7:00 in the morning and 7:00 p.m. at night, yes, sir.

CHAIRMAN MORELOCK: Because your boiler attendant is correct. It says at each shift.

MR. CORVIN: Yes.

CHAIRMAN MORELOCK: So just for consistency in your manual.

the alarm circuit itself? We don't hit that shunt that doesn't shut the boiler off, but will make an alarm?

MR. CORVIN: At the beginning of the shift, so that the technician knows everything is working correctly and that the attendant, the operator, is doing her job correctly, he actually shuts the boiler down and creates the alarm. She shuts the boiler down. We have the indication of that. Then we call her back and say please reset the boiler, and she turns it back on. And then we reset the boiler afterwards, because it still won't come back on until we reset the boiler.

MR. BAUGHMAN: Great. Well, and that's kind of what I was getting at, was just making sure that we weren't checking just the alarm circuit and make sure there wasn't an alarm going and -- because the protocol would be the remote attendant needing to pull the e-stop also.

MR. CORVIN: And you're correct. And just for the sake of my technicians, when they leave the boiler plant, they want to make certain that the boiler alarm is working, so they will check it every four hours when they come down and do their rounds and checks. They make certain

MR. CORVIN: Yes, sir. Thank you.

CHAIRMAN MORELOCK: Okay. All right. On page 7, you're stating, under training, the last sentence of the last paragraph, it says, "Your documentation log is Appendix G, but really that it's Appendix H; is that correct?

MR. CORVIN: That's correct, sir.

CHAIRMAN MORELOCK: Okay. And then where it says see Appendix H, up in the top under personnel, that should be Appendix G.

MR. NEVILLE: That is correct.

MR. CORVIN: Yes, sir.

CHAIRMAN MORELOCK: Okay. And that's all the comments that I have. Any other comments or questions?

MR. BAUGHMAN: Yes. So we're not shutting the boiler down, necessarily, when we're doing an alarm back to the remote station.

MR. CORVIN: We do on -- excuse me. On the beginning of the shift, we do shut the boiler down.

MR. BAUGHMAN: Okay.

MR. CORVIN: Yes, sir.

MR. BAUGHMAN: So there's not a time that we just do a false alarm just to check the alarm circuit itself? We don't hit that shunt that doesn't shut the boiler off, but will make an alarm?

MR. BAUGHMAN: The problem I've got with checking a boiler once every four hours -- and I know that it's all about safety -- but there's things that go on with the boiler that, in extending the four-hour period of time, doesn't necessarily bring an increased level of safety to the equation; i.e., if we blow a door gasket off the back end of a cleaver, we can get hot gas coming out. Or if we've got a hand hole that blows or leaks, a sight glass that should blow, so I always advocate checking the boiler more than once every four hours.

And I understand the purpose of the variance, I'm just not always in agreement that it brings a higher level of safety to the equation.

MR. CORVIN: Yes, sir. Since our first boiler variance in December of 1988, we have always had the practice of our technicians, any time they're not doing work in the hospital, they're going to the power plant making rounds, because that is the heartbeat of the hospital. And without the boiler, there's a lot of things that will go wrong, and -- without our power
systems and chiller systems. And they create this practice and we inbred that in. We train to that to our new employees when we change shifts and some of them get promoted, then we actually have a sign-off sheet for everything that they do, and we inbred that into them during our training process.

MR. BAUGHMAN: That's super.

MR. CORVIN: And then they work beside a shift person, usually a week or two weeks before we let them out on their own. But after, we actually go out and test them. We pull the boiler alarm or we create alarms for them or a fire alarm, two-system alarm. We create all these alarms, and they have to respond back with the proper -- or they don't get to go on shift by themselves.

MR. BAUGHMAN: Super. Why was Number 1 boiler replaced?

MR. CORVIN: It was back this time last year, we had some bugs to work out. Through the process, you know, with downsizing the boiler from a 800 horse to a 400 horse. We don't have a laundry now. And there were some -- you know, the efficiencies of the boiler. There were some things that we had to tweak the controls and do some things to get it where it would run right.

And then, working with Neville Engineering, we wanted to update our variance for the entire power plant. Because we had originally had a variance per boiler. And so when we upgraded the controls on Boiler Number 2 and got the oxygen trim in the 1000, that's when we had that variance updated.

MR. BAUGHMAN: Was the old variance still in effect?

MR. CORVIN: Yes, sir.

MR. BAUGHMAN: Thank you.

CHAIRMAN MORELOCK: Any other questions or comments?

(No verbal response.)

CHAIRMAN MORELOCK: Hearing none, do I have a motion for this new variance for Maury Regional Medical Center?

MR. BAUGHMAN: So moved.

CHAIRMAN MORELOCK: Okay. I have a motion. Do I have a secondary?

(Recess observed.)

THANK YOU-ALL very much for promptly reconvening. So we are now at Item 18-13, which is Energy Conversion Safety will provide an update to an existing variance for three high-pressure boilers located at Fort Sanders Regional Medical Center. So introduce yourselves, and you have the floor.
introduce, to my right, Julius Deaton. He is a multi-site facility manager there at Fort Sanders Regional Medical Center.

And to my left is James Swanson. He is a facility service technician to come help explain any operational questions you may have in the role that he plays.

As I mentioned, we are with Fort Sanders Regional Medical. This is a reissuance request; however, we're treating it as a new request based on some changes that have been made, substantial changes.

Originally, Fort Sanders Regional Medical received their variance back in 1989. I was bouncing around the Pacific Ocean on a big, gray ship around that time, so it's been a little while. As a matter of fact, the actual rule that that was passed under was 780. And here we are under 800. So that was 780-2-11-.04(22), so that has been a while.

Currently, Fort Sanders, as they were back in 1989, are operating the same three high pressure boilers. They are Cleaver-Brooks D-type watertube boilers, and they still maintain the same remote station that is located now in the security station which is attached to the emergency room waiting area.

That station is manned 24/7 by the security staff individuals. And the boilers are operated 24/7 by Fort Sanders personnel that are qualified boiler attendants. They run the three different shifts, Monday through Friday, as I allude to in the Glossary of Terms, as you will see in the appendices. And on the weekends, they will run two 12-hour shifts. So at any given time, there is a certified boiler attendant on site and a remote attendant inside of the security station.

I was just wondering if you had any additional questions for us.

CHAIRMAN MORELOCK: Okay. Any conflicts on this item?

(No verbal response.)

CHAIRMAN MORELOCK: All right. Hearing none, do I have a motion to discuss this item?

MR. BOWERS: Motion to discuss.

MR. BAUGHMAN: Second.

CHAIRMAN MORELOCK: Okay. So what questions do you have for this variance request?

MR. BAUGHMAN: Just real quick, Mr. Toth, you mentioned this was -- so in the letter, it states that this is a reissuance. You mentioned, though, that this was to be considered a new?

MR. TOTH: It can be considered new, based on the new equipment that has -- boiler control equipment that has been put on the boiler since 1989. Fort Sanders, up to this point, was under the impression that they were continuing to operate their variance per their requirements. As a matter of fact, they go above and beyond to do every-two-hour checks on the boiler versus what was passed under was 780, every four hours.

Then the chief's office made contact with Fort Sanders, alluding to the reinspection requirements that are now being enforced. At that time, they contracted with myself. We then went into the process of reviewing their existing manual. That's when I brought it to their attention, the concerns that I saw in the current manual from 1989 with the requirements that the board requires; and, therefore, that's why we have taken the course of appearing before you versus the standard reinspection through the chief's office.

MR. TOOTH: Yes.

MR. BAUGHMAN: So that's why I was just wanting clarification on what it is exactly. Modified, yes, sir.

MR. TOTH: Right. Right. Even modified, yes. It is modified.

Thank you. When was the last approved variance? Because since you said "now that we're enforcing," it alluded that we hadn't been enforcing.

MR. TOTH: Right. Right. Even back to the point when I was chief inspector, that was around the time that we started looking towards putting in the requirements to have variances reinspected on a tri-annual basis because of some of the concerns that we saw with manpower shortages, things of that nature, dealing with other low-hanging fruit within the department.

Up until recently, the office of the
chief inspector has been able to perform these re-inspections of the variances, and doing a much better job than we did back in my day.

MR. BAUGHMAN: So when was the last variance?

MR. TOTH: It would have been in 1989.

MR. BAUGHMAN: Okay.

MR. TOTH: And I believe we will see -- and we have seen that quite a bit throughout the variances -- that we're starting to get a handle on it. And I do applaud Chief Chapman and the rest of his staff for taking on that. That's definitely a difficult task.

CHAIRMAN MORELOCK: Those tri-annual reinspections got so far behind, you really had no basis to go back for renewals. It's just easier to start with a fresh, new -- because you didn't have any supporting data.

MR. BAUGHMAN: We've seen that.

MR. TOTH: We've seen that quite a bit.

And if you recall, the tri-annual came primarily from what we experienced with evidence-based owner-user repair companies, things of that nature, that we found that that was the best course of action.

MR. BAUGHMAN: So this can be considered a modified renewal.

MR. TOTH: Yes.

MR. BAUGHMAN: So there's some revisions, obviously, to the original. Those revisions aren't listed.

MR. TOTH: No, they are not. I can briefly go through some of those, if you would like.

MR. BAUGHMAN: Yes. And they should be, actually, listed on a revision. If this is a modified renewal, those revisions should be itemized, should they not?

MR. TOTH: Well, they would be from this point moving forward on a revision sheet based on such a lapse in the time between 1989 and now. This manual, if that was the case, the revision pages probably would have taken up about ten different, individual -- this was a complete rewrite of the original variance request from 1989.

MR. BAUGHMAN: Okay.

MR. TOTH: So primarily, when we talk about the revisions that were made, is the controls, the primary safety controls, in this case. Now the boilers have the Honeywell 7840 primary safety controls, which is your flame safeguard, your burner management system. They also have the Hawk ICS systems in place, which do have a 02 trim, Mr. Fox.

MR. FOX: Thank you.

MR. TOTH: And that's the majority of the changes that would fall under the variance. Another interesting change that you would find is that recently, within the past, I would say, year, the past year, we installed a brand-new Cleaver Brooks spray-type deaerator that is now listed within the appendices.

CHAIRMAN MORELOCK: Sounds like there's enough changes that it pretty much is a new --

MR. TOTH: There were some pretty substantial changes. I have to hand it to Mr. Deaton, sitting to my right, that he brought it to the attention that there were a lot of things that though they were operating under the old variance, that he felt that there had been some substantial changes; therefore, that's when the contact has been made to me to assist them.

CHAIRMAN MORELOCK: Okay. Very good. Other comments or questions?

MR. BAUGHMAN: I'll continue, then, if there's nothing else.

On page 3, where it shows the panel itself --

MR. TOTH: Yes.

MR. BAUGHMAN: -- it says, "Note: Mounted at security station in east wing hospital building." And that's where, I take it, it is mounted.

MR. TOTH: Yes. And you will see that, also, in the site plan, where that is located.
MR. BAUGHMAN: Okay. Well, the site plan didn't necessarily, I don't think --
MR. TOTH: Call it the east wing?
MR. BAUGHMAN: Pardon?
MR. TOTH: Did it not call it the east wing? Is that what you're --
MR. BAUGHMAN: Yeah.
MR. TOTH: Okay.
MR. BAUGHMAN: And so I was just kind of crossing T's, dotting I's, and lower-case J's.
MR. TOTH: Okay.
MR. BAUGHMAN: The panel itself, does this panel have -- I noticed it's got some push-to-silence for the alarms.
MR. TOTH: Uh-huh.
MR. BAUGHMAN: So if there is an alarm, you can actually silence the alarm here without activating anything else. Pushing the alarm does not activate the e-stop.
MR. TOTH: Right. Correct. And that's a usual, normal installation process, especially when you're looking to have communications over way of telephone or radio for the remote attendant to silence that alarm so there can be clear communication.
MR. BAUGHMAN: So getting on to the alarms, does this have the level master on it?
MR. TOTH: It does have a level master.
MR. BAUGHMAN: Okay.
MR. TOTH: All three boilers do have a level master.
MR. BAUGHMAN: Very good. The panel itself, is this a panel that's built on site, or is this a panel that's assembled elsewhere and brought on site?
MR. TOTH: This is a panel that is subcontracted out and assembled, brought on site and wired in, yes.
MR. BAUGHMAN: Okay. Is this a UL-listed panel assembly?
MR. TOTH: No, it would not be a UL-listed panel assembly, nor -- I don't feel that it would be necessary to have a UL-listed panel assembly.
MR. BAUGHMAN: Are there any relays in this panel?
MR. TOTH: There are no relays in the panel itself, I don't believe. I would have to check with our subcontractor on that.
MR. BAUGHMAN: Okay. Because being integral with the control system and the shutdowns, one of the things we've got to be looking at is the tie-in with UL components, UL listing and so forth.
MR. TOTH: And I do understand that, and the individual components would be, but not the assembled unit. And that's one thing that I would like to make perfectly clear with my experience throughout the state on these. You're not going to find too many completed components that are UL listed. You're going to find independent, individual components within. So hopefully, I answered your question. Because you did ask about the UL listed --
MR. BAUGHMAN: The assembly.
MR. TOTH: -- the assembly.
MR. BAUGHMAN: Well, and you made the comment, "I believe the components are individually UL listed."
MR. TOTH: Well, I would have to check, but they should be, yes.
MR. BAUGHMAN: Yes, they should be.
MR. TOTH: Yes. They will be.

MR. BAUGHMAN: Let's just put it that way. The question is, is when we go past, from this point moving forward, my responsibility within this project is to ensure that all the components meet the required codes. And they will.
MR. TOTH: Okay.
MR. TOTH: And at that time, when the inspection is performed, the inspector will be more than welcome to investigate those relays to ensure they are UL listed.
MR. BAUGHMAN: You bet. And that should be a contingency.
MR. TOTH: Absolutely.
MR. BAUGHMAN: So the boiler cannot be restarted from the remote station.
MR. TOTH: No, it cannot.
MR. BAUGHMAN: Okay. So if the -- by chance the e-stop was reset in the boiler room --
MR. TOTH: The reset in the boiler room?
MR. BAUGHMAN: Or the e-stop out in the facilities itself --
MR. TOTH: Okay.
MR. BAUGHMAN: -- if that e-stop is made, will the boiler not fire up if the e-stop is made at the remote station?

MR. TOTH: No, it will not.

MR. BAUGHMAN: Okay. How would the boiler be fired up?

MR. TOTH: At the boiler.

MR. BAUGHMAN: But how would it if that e-stop is already reset? What else has to be reset in the boiler room?

MR. TOTH: Okay. So in the -- I'm going to try to answer this question the way I believe that you're asking it. So in the situation when there is an emergency where the e-stop is activated at the remote station, once the cause of the emergency or the alarm is cleared, there will be communication back to the remote station for the remote attendant to reset the e-stop. At that time, then the resetting of the boiler occurs at the boiler itself.

MR. BAUGHMAN: Sure.

MR. TOTH: If there --

MR. BAUGHMAN: But I guess --

MR. TOTH: If there is a second e-stop, such as the e-stops that are located within the boiler room, those, too, must be reset.

MR. BAUGHMAN: Uh-huh. I guess what I was getting at was the wording that it cannot be restarted. But in actuality, it can physically if somebody so wanted; it just shouldn't be restarted.

MR. TOTH: Okay. Can you explain "it cannot be restarted"?

MR. BAUGHMAN: Well, if the resets were already reset in the boiler room, the boiler is ready to go except for one last reset. And that's at the remote station.

MR. TOTH: Yes.

MR. BAUGHMAN: Once that remote station would be reset, the boiler would fire up.

MR. TOTH: The boiler would fire up as long as the alarm is cleared.

MR. BAUGHMAN: Yes.

MR. TOTH: Okay. And then we have a restart, which is normal operations.

CHAIRMAN MORELOCK: Well, on page 4, where it has the emergency procedure, Item F at the bottom says, "The boiler cannot be restarted from the remote station, but the switch must be enabled to allow start up of the boiler."

This is performed by pulling the mushroom e-stop button out on the right side of the panel. The boiler attendant must return to the boiler room in order to restart the boiler."

MR. BAUGHMAN: I guess what I was getting at was just kind of semantics on --

MR. TOTH: Oh, I definitely understand where you're going with it. The concern that you have is that if an emergency stop is reset at a remote station, if the boiler is in a position where it can restart, it will restart. However, we're talking about a concern that we have with a boiler going down that is in alarm that is going to require a reset at the boiler itself.

The one thing that we can do is we can put it into words all we want, the proper procedure; we just have to make sure we train on that procedure and ensure the individuals that are responsible to do what they're supposed to be doing.

MR. BAUGHMAN: I agree. Thank you.

Is there ever a time when you have nuisance lockouts, nuisance alarms?

MR. DEATON: Occasionally.

MR. BAUGHMAN: And what would those be?

MR. DEATON: High-water alarms and some low-water alarms occasionally.

MR. BAUGHMAN: Okay. And when you've got a high-water alarm -- I just want to make sure the protocol is that we don't get complacent with having a nuisance alarm and hitting a silence switch without taking the boiler offline. And some boilers give nuisance alarms.

MR. TOTH: Sure. And let me just elaborate, just to back up what Mr. Deaton had said. When we talk about the nuisance high-water alarms, we're usually talking about a boiler that's in the standby position --

MR. DEATON: True.

MR. TOTH: -- is where we have that. Again, it goes back to the proper training and continual training of the individuals. You hear an alarm, you trip the boiler, then you go through the process of communications. That's it.

No deviation from those requirements.

MR. BAUGHMAN: So on page 8, Section 4, under Boiler Attendant Procedures --
MR. TOTH: Yes.

MR. BAUGHMAN: -- the fourth sentence, "The boiler will not be operated for periods of longer than 20 minutes without being checked by the boiler attendant."

MR. TOTH: That's spelling out the rule.

MR. BAUGHMAN: I understand. So what would I would like to know is what do they check?

MR. TOTH: What do they check every 20 minutes or every 4 hours?

MR. BAUGHMAN: Every 20 minutes.

Here's the thing that -- let me be perfectly clear. Okay? Right now we're talking about a variance. Okay? We're talking about a variance that's going to encompass a check every four hours. If we're concerned with what they're doing every 20 minutes, does that really fall under the variance requirements? Let me just ask that.

MR. BAUGHMAN: No. I'm just interested from an operational standpoint of since we've got people that aren't necessarily boiler people --

MR. TOTH: Actually, they are.

MR. BAUGHMAN: Okay. But we've also got others that can operate under the auspices of a boiler attendant should people be out sick and so forth. Do we not have other personnel --

MR. TOTH: If you're referring to Mr. Deaton as the facility's operator or a team leader -- is that what you're referring to?

MR. BAUGHMAN: Any personnel other than the senior facilities technicians and so forth.

MR. TOTH: Well, the facilities technicians, either one or two, or the senior facilities technicians, are boiler people. They are trained boiler people. The position of a team leader or the multi-site manager, as Mr. Deaton is, is more of a back-up role in case there is some sort of emergency or undermanning or something like that.

So when we talk about it, all these individuals are going through the same training. They're going through the same operator training, a full-day class, and they have to pass an exam. So to ask that question, what are they doing every 20 minutes? They're taking the standard readings that they are trained to take.

MR. TOTH: Good.

CHAIRMAN MORELOCK: And that's addressed oath under the boiler attendant as well as Appendix G. Because it states in Appendix G that they serve as a certified boiler attendant while the boiler attendant variance is in place, to clarify, between the 20-minute rule and the four hours.

MR. BAUGHMAN: I guess what I was looking at was the amount of training to check the boiler, because it falls under security guard or it falls under different --

MR. TOTH: But actually, it does not. The security guard does not check the boiler. At Fort Sanders Regional Medical Center, they have individuals that fall under the facility service technician 24 hours a day, 7 days a week.

MR. BAUGHMAN: Got you.

MR. TOTH: So those individuals are responsible. You may be confusing it with another location, but this location has somebody that is a certified boiler attendant 24/7.

MR. BAUGHMAN: Got you. I may have thought that I saw that under the duties of security guard.

MR. TOTH: And if you did, that would be a mistake on my part.

CHAIRMAN MORELOCK: Well, not to get this totally off track, but the other variance has a boiler guard in it.

MR. TOTH: It does.

CHAIRMAN MORELOCK: And that may be what you're thinking about.

MR. TOTH: It does.

MR. BAUGHMAN: Okay. Very good.

Well, basically, what I'm looking at is -- and Fort Sanders, I'm sure, does a great job, as they understood, like, with Maury being in here earlier, it's the heart of the plan.

MR. TOTH: It sure is.

MR. BAUGHMAN: They understand the significance -- these boilers have been in place a long time, so not that this isn't, you know, being handled in a safe manner. I was interested in the exams and the certifications. Being that the State doesn't have any certifications, I was very interested in what Fort Sanders' certifications were.
MR. TOTH: I'll be more than happy to answer that.

MR. BAUGHMAN: Thank you.

MR. TOTH: The certifications as written in the Tennessee state laws, rules and regulations put the onus back on the owner-user to certify their individuals. Therefore, the tests that are being administered and will be administered by Fort Sanders, in essence, certifies those individuals per Fort Sanders requirements.

CHAIRMAN MORELOCK: The training program serves as a certification.

MR. TOTH: Absolutely.

CHAIRMAN MORELOCK: With an annual renewal.

MR. TOTH: Absolutely.

MR. BAUGHMAN: So presently, under the checklist on page 39, under 29, what procedures are in place for annual training, it says, "Training will be contracted to provide training, and a system is being developed for annual retraining."

MR. TOTH: Yes.

MR. BAUGHMAN: So do we presently have that in place, or is it still under development?

MR. TOTH: Very good question. The renewal training, the contract that Fort Sanders has is with Boisco Training Group to provide the on-site training for their boiler attendants and also their remote attendants.

What is in the process of being developed and will be launched in January of 2019 is a cloud-based training program that is custom built for Fort Sanders. And, also, just to add for the next item up, Claiborne Medical Center, for that renewal of not only the remote attendant training, but also for the boiler attendant training.

MR. BAUGHMAN: Thank you.

MR. TOTH: And there are exams that are required for each. They have to have a passing grade of no less than 70 percent to be able to serve in either of those roles.

MR. BAUGHMAN: And if they don't pass...

MR. TOTH: If they don't pass, they don't -- they can't serve in that role. I've actually had clients that had to replace remote attendants for their failure to pass.

MR. BAUGHMAN: Very good. Do we have any remote communications capabilities?

MR. DEATON: Can you define "remote communications," meaning other than the PBX and other than the remote station --

MR. TOTH: He's speaking of can you see the boiler operating on line.

MR. DEATON: No, you cannot.

MR. BAUGHMAN: Okay.

MR. DEATON: You can from the central plant where it is tied in to the building automation system. We have a control room there in the central plant where we can have visibility to that. We also have a secondary remote station that's in the facility maintenance office, which is in the Laurel Plaza building, which is adjacent to the central plant, probably about 300 feet.

MR. BAUGHMAN: Very good. Thank you.

MR. DEATON: Thank you.

CHAIRMAN MORELOCK: Is that alternate remote station in this manual?

MR. TOTH: It's not treated as that.

MR. DEATON: That particular alternate station would be able to visibly see everything within the entire facility, air handling units, pumps, chillers, et cetera, exhaust fans.

MR. TOTH: And this is fully protected, password protected throughout. I made sure of that.

MR. BAUGHMAN: So nobody can hack it. It isn't unhackable.

MR. TOTH: It's unhackable.

MR. BAUGHMAN: Okay. On the record.

MR. TOTH: That's a very dangerous thing to say on the record, because somebody can.

DR. HARGROVE: May I ask the other guest his roles and responsibilities?

MR. SWANSON: My roles responsibilities, for the last 12 years, I've been the second-shift boiler attendant. So I've been -- originally, I was considered an energy plant operator. So I've been doing the duties that we've been describing, as well as performing maintenance throughout the hospital, minor maintenance throughout the hospital.
DR. HARGROVE: Thank you, sir.

MR. SWANSON: That's it.

MR. DEATON: And doing it well, I might add.

MR. SWANSON: Thank you.

CHAIRMAN MORELOCK: Any other questions or comments?

(No verbal response.)

CHAIRMAN MORELOCK: Hearing none, do I have a motion to approve this variance request, a new variance request, contingent on a successful site visit by the boiler unit?

DR. HARGROVE: Motion to approve a new variance request.

CHAIRMAN MORELOCK: And contingent on making revisions to the manual as per comments made during this boiler meeting.

MR. TOTH: And can I get an understanding of what those were again?

CHAIRMAN MORELOCK: I don't know that you've got any to-do -- well, other than update your checklist to show it's a new variance.

MR. TOTH: There you go. I will make sure and do that, sir.

CHAIRMAN MORELOCK: That's the only takeaway I've got.

DR. HARGROVE: And the inspection.

CHAIRMAN MORELOCK: And inspection, right.

MR. TOTH: Oh, and the inspection.

Okay.

CHAIRMAN MORELOCK: Anything else?

(No verbal response.)

CHAIRMAN MORELOCK: Then I'll call the question. All in favor say "aye."

(Affirmative response.)

CHAIRMAN MORELOCK: Abstentions, not voting?

(No verbal response.)

CHAIRMAN MORELOCK: All right, gentlemen.

MR. TOTH: Thank you very much.

CHAIRMAN MORELOCK: That will take us to our next item, which will be 18-15. Energy Conversion and Safety will present Claiborne Medical Center who is requesting a new variance for two high-pressure boilers to operate under the current rule.

Any conflicts of interest on this item?

(No verbal response.)

CHAIRMAN MORELOCK: Okay. None noted.

MR. TOTH: Thank you, Mr. Chairman. And I would like to introduce, to my right, Mr. Mike Campbell. He is the facility and safety manager at Claiborne Medical Center. And then Mr. Larry Yeary.

Again, thank you so much for your time. I would like to present to you a new request for issuance for a remote variance for Claiborne Medical out of Tazewell, Tennessee. Claiborne has been around for quite a while, since 1959. It's a very nice facility there.

As we allude to this, Mike is responsible, totally responsible, for the boiler variance that is presented to you.

At CMC, we have two high-pressure boilers, Superior firetube boilers, that are operating. They both operate under the primary safety control of a Honeywell 7840. They do not have a DA. They just have a feed water tank, a Bennett feed water tank. And they operate 24 hours a day, 7 days a week.

What you will find is that for Claiborne Medical Center, they have a remote station that is located in the central nursing station that is on the first floor of the hospital. The boiler room is located just outside of the stairwell on the ground level. And you will see that on the site plan. It's in very close proximity to the central nursing station. The nursing station is manned 24/7 by licensed practical nurses. Those LPNs will be certified for the remote attendance requirements. Again, that nursing station is manned 24/7. Even if there are emergency codes going on, there will be somebody that has to man that station, even if the other nurses have to vacate.

The boiler attendants located -- just as with the previous variance that we reviewed,
they have senior facility service technicians and facility service technicians. Larry is one of the facility service technicians that does a lot of the manning of the boiler and the duties and responsibilities of boiler attendant during the daytime shifts.

In addition to the Claiborne Medical Center staff, we also operate -- would like to operate under the boiler guard operations in the evening and early mornings before the day shift comes on. Those boiler guards, just as with any other boiler attendant, is required to go through the exact same training as the staff attendants and pass the exam. If not, they will not be authorized to man that post during those times.

Mike is responsible for that. He will be the one to ensure that that is adhered to.

Any questions?

CHAIRMAN MORELOCK: Okay. We have no conflicts, so we've got a motion to discuss, so I'm opening the floor for any questions or comments.

I will say, while you're thinking, Mr. Toth did send us an updated organizational chart. I don't know if you saw that in your email, but basically, it just showed the additional organization showing the nursing supervisor and the LPN being the remote attendant.

MR. TOTH: I do apologize for that oversight. I was able to catch it during the review yesterday.

CHAIRMAN MORELOCK: And so we just need to make sure we get that into the manual.

MR. TOTH: Yes, sir. That's already been done.

CHAIRMAN MORELOCK: Okay.

MR. FOX: I've got a question.

CHAIRMAN MORELOCK: Okay.

MR. FOX: On the 784 controls that are on this boiler, do you incorporate, also, the expanded enunciation?

MR. TOTH: No. No expanded enunciation; however, there will be -- in this case here, there will be a new -- a flame amplifier installed for additional safety in the case of a dynamic self-check.

MR. FOX: All right. I was just wondering about the expanded enunciation. When the boiler goes out on low-water, it sets off an alarm, do we know -- does the attendant know what that boiler went out on?

MR. TOTH: Well, in --

MR. FOX: Or is this something that you tried to come in and research to see why the boiler is locked out?

MR. TOTH: Right. You're absolutely correct. And just like any standard boiler, if it's a low-water condition, they come in, they look at the actual key display and see if they cannot see why it actually went on alarm. They're going to have to do the responsibility of troubleshooting. And they would not -- they would not know that. That would be one of the items that they would be trained in, to be able to identify that.

MR. BAUGHMAN: So there's two low waters on these boilers, correct?

MR. TOTH: Yes.

MR. BAUGHMAN: Okay. Which one is wired to the alarm?

MR. TOTH: Well, it's going to be the auxiliary. The auxiliary is going to be -- the auxiliary -- when you have a shutdown, your auxiliary low-water cutoff is what's going to actually trip the alarm that's going to send the signal.

MR. BAUGHMAN: Okay. So the boiler can go off on the primary alarm first.

MR. TOTH: Absolutely.

MR. BAUGHMAN: So the boiler goes down on low water.

MR. TOTH: Absolutely.

MR. BAUGHMAN: Nobody knows it.

MR. TOTH: Again, we're sitting there putting ourselves in the situation where it doesn't -- you know, if the primary goes out, okay, the primary low-water cutoff, and it doesn't shut the boiler down, the auxiliary is responsible for tripping the boiler and has the manual reset.

MR. BAUGHMAN: Well, let's run the scenario backwards.

MR. TOTH: Absolutely.

MR. BAUGHMAN: The secondary doesn't work --

MR. TOTH: Okay.

MR. BAUGHMAN: -- and the primary goes down and does not have the alarm on it. I guess my question would be why do you not put the alarm on the primary instead of the secondary?
MR. TOTH: Usually -- it's usually the -- there is an alarm. It's an audible. It's just the actual tripping of the boiler for a manual reset. In this case here, the normal installation is going to be to put it on your auxiliary low-water cutoff.

MR. BAUGHMAN: Well, I disagree. I always put the alarms on the --

MR. TOTH: And that's fine. That's fine. But --

MR. BAUGHMAN: Yeah.

MR. BAILEY: Whoa. We can't have two people talking.

MR. TOTH: Okay.

MR. BAILEY: One talk, ask the question, and then you respond. It's back and forth. It keeps the record clean.

MR. BAUGHMAN: Go ahead, Mr. Toth.

MR. TOTH: Please... So it doesn't -- if the boiler goes off in a low-water condition, it doesn't behoove anybody to wait for it to go down on the secondary to trip the alarm. So I guess my question would be why would you decide to put it on the secondary and not the primary?

MR. TOTH: Okay. First, it's always best that it's the normal installation. That's the recommended installation from the manufacturer. But here's the situation that you're running into. If I flip that around and said you put it on the primary, and the primary fails, you're putting a scenario, Mr. Baughman, in place that says that we have no controls that are working.

We understand -- and nobody understands more than I do -- that accidents occur because of multiple failures, not one. So what we put into place within this organization here, CMC and all the other clients, is to ensure that not only we have a system in place, but we are practicing that, and how are we practicing that. We're practicing that with putting forth proper testing of our controls and safety devices.

MR. BAUGHMAN: So my follow-up to that would be is that you -- protocol would be that you have an alarm on both that enunciates back to shut it off at the remote station, not just one or the other. The alarm contacts are in the primary control, and they are in the secondary.

MR. TOTH: Right.

MR. BAUGHMAN: So same thing with the flame safeguard. It enunciates on multiple types of failures --

MR. TOTH: Absolutely.

MR. BAUGHMAN: -- as the low-waters should. Now, it's not part of our variance requirement. I'm just saying from a safety standpoint by getting an understanding of this. I agree.

MR. TOTH: I agree.

CHAIRMAN MORELOCK: All right. Who is the inspector?

MR. TOTH: Lee Yarborough.

MR. BAUGHMAN: With?

MR. DEATON: Travelers.

CHAIRMAN MORELOCK: But I guess it goes with saying these are valid comments, but we, as a board, we don't dictate how the manufacturer designs their boiler equipment. It does have to meet recognized and accepted standards, as well as standards required by Tennessee law and Rule 800, but -- it's a good conversation, gentlemen, but we're not going to promulgate any of that.

MR. BAUGHMAN: Right. Sure. So getting back to page 3, where we've got the enunciation panel again for the remote station, again, under the panel, it says "Note: Mounted at security station in Eastwing Hospital Building."

MR. TOTH: I do apologize for that. And that's what you were probably alluding to. The -- this diagram here, obviously, is a simulation that's put together that showed when both locations were put together. And I'm glad you brought that up. It's a simple change. Where is it located at? As I alluded to before and I'll make that editorial change, it's located at the central nurses station.

MR. BAUGHMAN: Thank you.

MR. TOTH: But I do appreciate you bringing that to my attention.

MR. BAUGHMAN: Absolutely. Just attention to details.

On page 7, the first item, d), "When the alarm condition on the affected boiler is cleared, the boiler attendant will need to report to the remote station to reset the emergency stop button by
inserting the button key and pulling out the mushroom button."

So the remote station attendant cannot reset the reset button; the boiler attendant has to come back to the remote station themselves?

MR. TOOTH: That is the process, yes.

MR. BAUGHMAN: Okay. And what is a "button key"?

MR. TOOTH: It's an e-stop key that you have to be able to reset the e-stop.

MR. TOOTH: Have you never seen one?

MR. BAUGHMAN: Oh, yeah. I just didn't really see that on this panel, and you said this is a simulated panel, so I was kind of going over the details on the key in it. I didn't see a place to put the key on that panel.

MR. TOOTH: Well, I'll make sure that when we actually make the panel, if it satisfies you, I will make sure that an actual photograph of the key is --

MR. BAUGHMAN: Yeah, I'm good. I just wanted to make sure I had a good understanding. So the remote station attendant, the LPN at the nurses station cannot reset it herself. The attendant has to come back, reset it himself, and then go back to the boiler room to restart the boiler.

MR. TOOTH: Yes. Either that or if there is a second boiler attendant that is on site, they can communicate and take care of that.

MR. BAUGHMAN: That's great. Thank you.

So the boilers themselves, you've seen the boilers. So there's a picture of the boilers, of these Superior boilers. And the one on the right, which would be...

MR. TOOTH: Boiler 1.

MR. BAUGHMAN: Okay. So the one on the right is actually under Boiler 2, but it's actually Boiler Number 1.

MR. TOOTH: They're photographed how they sit in the boiler.

MR. BAUGHMAN: I got you. Well, I was just taking it under the Boiler 2 and the pictures under Boiler 2, but it's not -- the picture under Boiler 2 is actually Boiler Number 1?

MR. TOOTH: (Nods head.)

MR. BAUGHMAN: Okay. Thank you.

So this boiler would fall under the requirements of CSD-1.

MR. TOOTH: Yes.

MR. BAUGHMAN: And being that that input is between the 400,000 and 2,500,000, it would dictate that there be --

MR. TOOTH: Well -- say that again.

MR. BAUGHMAN: 400,000 and 2,500,000.

MR. TOOTH: 12,500,000.

MR. BAUGHMAN: Well, this is for this particular gas train. I'm itemizing it for this particular section.

MR. TOOTH: Okay.

MR. BAUGHMAN: CSD-1 covers up through 12,5, but I'm talking about the specific section of CSD-1, which is 400,000 to 2,500,000.

MR. TOOTH: Okay.

MR. BAUGHMAN: Which would dictate that on the gas train itself, there should be two shut-off cocks --

MR. TOOTH: Yes.

MR. BAUGHMAN: -- which I don't see on the gas train. The larger boiler does, and you can see them clearly identified. There's got to be a test cock -- not a test cock, I'm sorry -- a manual shut-off cock the last thing before it enters the gas train.

MR. TOOTH: So a manual shut-off --

are you talking about a safety shut-off valve?


MR. TOOTH: I see what you're saying.

MR. BAUGHMAN: So that's identified on the larger boiler. The smaller boiler it is not. I'm looking at the steam header outlet which shows what appears to be screwed piping.

MR. TOOTH: Uh-huh. But now we're going -- right now you're going into something that is covered under inspection.

MR. BAUGHMAN: Yes.

MR. TOOTH: Okay.

MR. BAUGHMAN: So what I'm getting at is that the boiler doesn't quite meet the code requirements of the day.

MR. TOOTH: I beg to differ.
MR. TOTH: Because that particular boiler has the proper piping based on the design of Boiler Number 1.

MR. BAUGHMAN: So will leave this, of course, is contingent upon the inspection, but in taking this on the computer and expanding the pictures out, there's a closer look that needs to be made on that boiler. Let me say that.

CHAIRMAN MORELOCK: But I think the point being made here is installation is not part of the variance request.

MR. BAUGHMAN: Sure. I just wanted --

CHAIRMAN MORELOCK: That's an installation inspection.

MR. TOTH: So what -- and if I may add to that, the process of looking at an installation of a boiler that not only has been in service for quite a while, that has not been changed out, that has been approved by a certified and licensed boiler inspector with the state of Tennessee, I think is -- it's a nonfactor, and I think that that -- that that's a little bit of out of line. I'll just tell you.

MR. BAUGHMAN: Okay. Well, from my end of it -- and we know in the inspections that we're all human beings and things get passed that don't necessarily meet the code of the day, and I think you would agree to that for the number of piece of equipment that we've seen over the years. I just want to make sure that this is contingent upon the inspection and that those items that I have pointed out are valid items. And so we'll just add that in the contingency of the inspection. So we both take exception to each other.

CHAIRMAN MORELOCK: Well, but, Mr. Baughman, with all due respect, that's something that needs to be taken up with the Boiler Unit, not the Tennessee Board.

MR. BAUGHMAN: Yes. Sure. And I just wanted to make note of it for the record.

CHAIRMAN MORELOCK: It's duly noted, but --

MR. ROBINSON: (Indicating.)

CHAIRMAN MORELOCK: Yes, Mr. Robinson?

MR. ROBINSON: Mr. Chairman, now that the genie is out of the bottle, can Gene ask a question?

MR. TOTH: No.

MR. ROBINSON: Very well.

MR. TOTH: It's a reset key.

CHAIRMAN MORELOCK: Okay. Any other questions or comments?

(No verbal response.)

CHAIRMAN MORELOCK: Okay. Hearing none, do I have a motion for approval of variance contingent on a successful site visit by the Boiler Unit and the Chief Inspector, along with incorporating comments from the Board during the review of this variance manual?

DR. HARGROVE: Motion for approval for this variance.

CHAIRMAN MORELOCK: And do I have a second?

MR. BOWERS: Second.

CHAIRMAN MORELOCK: Okay. I have a second. Last call for comments.

(No verbal response.)

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

(Affirmative response.)

CHAIRMAN MORELOCK: Opposed?
(No verbal response.)

CHAIRMAN MORELOCK: Abstentions, not voting?

(No verbal response.)

CHAIRMAN MORELOCK: Gentlemen, you have an approved contingent variance.

MR. TOTH: Thank you, gentlemen.

CHAIRMAN MORELOCK: Thank you.

All right. So that concludes our new business. So moving on to Item 9, Open Discussion Items. The tentative dates for 2019 for the Tennessee Board of Boiler Rules meetings are listed here as Wednesday, March the 13th; Wednesday, June the 12th; Wednesday, September the 18th; and Wednesday, December the 11th.

It's not a voted action. It's just information. So if the board members have conflicts, let's all talk with the Boiler Unit, and we'll make sure we can try to accommodate those so that we can always maintain a quorum.

And so then, based on our approval, our next --

MS. JEFFERSON: Chairman?

CHAIRMAN MORELOCK: Yes?

MS. JEFFERSON: Chairman, before you move on, if there are any questions or comments or if you do have any conflicts with those dates, if you'll let our Board secretary --

I'd just like to ask Lynn, if she's here, the Board Secretary to stand, as well as our assistant, Ebony Paige. If you-all have any comments, feel free to email them, and they'll be happy to help coordinate and get a specific date that's convenient for everyone.

DR. HARGROVE: Mr. Chairman, for me there's a likelihood of a June 12 attendance, which is key travel time.

CHAIRMAN MORELOCK: Okay. Is that a for sure, or possible?

DR. HARGROVE: That's usually an international trip for me, so highly likely.

CHAIRMAN MORELOCK: Okay. Well, so we'll check with Mr. Henry as well. And, you know, we have six. As long as we can maintain a quorum, we can accommodate that, so...

Any comments about those proposed dates?

(No verbal response.)

Doris --

Doris, we're going to give you the floor for your update on the computer system.

MS. BARNETT: Yes.

MS. JEFFERSON: And while she's coming, I would just like to say that Doris is a new employee with the WRC Division. This is her first time presenting to this particular Board. And what Doris brings to the Division is that she has a vast amount of experience. She's been working with boilers, elevators, amusement devices for years, and she has knowledge about all of our computer systems.

What she's going to do is help us to move forward with a new computer system. We currently have one, but it's antiquated. Our processes are antiquated. So she's going to assist us as we move forward with our new computer system. And she'll talk about those things.

In addition, what she's going to do once we complete our computer system, she's going to help us to perform quality assurance on each one of our units within the division so that we can prevent delinquencies as much as we can, reduce those. Also, so we will have some alerts on the computer system so we won't have issues going forward.

CHAIRMAN MORELOCK: Very good.

MS. BARNETT: Thank you, Kim, for that great introduction.

As stated, I'm Doris Barnett. I actually have a long history with the Division, as also stated, and enjoy working with them. I was the project manager for the Jurisdiction Online project, which is our new computer system.

We brought on board, already, the elevators and amusement devices systems. Elevators came on board six months ago. The amusement devices came on board last week. So far, we've had no major issues with either of those and the units are excited to be working with the new project.

We've started our focus on the boilers piece of it. We're doing the initial, basically, just reviews and discussions at this point. We haven't actually done any true digging, although we have the minimum-requirements list that was created some time ago. We're going to review that and bring it back and make sure that it's still relevant.
We have a dictum to go ahead and make sure that we are going to perform timely inspections. And we're going to have an ability to track any code violations. And that will be all part of the new system once we get that up. I think this is an exciting process. We're looking forward to the new system. And, of course, throughout, I'll be working with the staff to make sure that we get all our needs and wishes heard, at least, and get everything that we can brought into our new system. Which, at this time, we don't have a timeline for that. We're estimating it will take six months from now to bring it online and be active in Jurisdiction Online.

Any questions?

CHAIRMAN MORELOCK: I have a couple.

MS. BARNETT: Okay.

CHAIRMAN MORELOCK: One being, how will the new computer system handle the two-month grace period?

MS. BARNETT: That will be designed as part of the system.

CHAIRMAN MORELOCK: Okay.

MS. BARNETT: One of the things we have -- when we sit down to discuss with the vendor and we tell them our requirements, that is one of them.

CHAIRMAN MORELOCK: Okay. My understanding is that it will, but we would really work with the Unit and sit down with the Jurisdiction Online people. We would make sure they are aware of all those limitations and requirements and have those covered. Because if we don't tell them, they can't do it.

CHAIRMAN MORELOCK: Okay. Very good.

MR. BOWERS: I've been using Jurisdiction Online for several years. Same with Eugene there. And there's other states that are using it. It would be good to -- I think Georgia uses it, and North Carolina -- look how they --

you know, they've had it for several years, to see how to help you in your transition period.

MS. BARNETT: We will probably be looking at that as well. I do know our chief has already talked to some of them and gotten some feedback on how they are working with the systems. One of the things I am particularly excited about is the ability to have the online payment portal so that people out in the general community who have these boilers and pressure vessels are able to pay their invoices without having to go through mailing the check and waiting for it to clear. They'll be able to do it immediately.

CHAIRMAN MORELOCK: Thank you.

MR. ROBINSON: (Indicating.)

CHAIRMAN MORELOCK: Mr. Robinson?

MR. ROBINSON: Mr. Chairman, the first question you asked about, as far as how JOL is going to give you information regarding the expiration date, currently, what happens is on my portal screen, if the expiration date is surpassed, it turns red, indicating that I have a delinquency.

As far as 60 days out, if in the event I wanted to search for work in my territory, 60 days, 120 days, whatever time I wanted to put on it, I can put that number in. It will search infinitely my entire territory and bring that information to me.

CHAIRMAN MORELOCK: Okay.

MR. ROBINSON: And then I think you had a -- your other question, your last question...

CHAIRMAN MORELOCK: Units of measure.

MR. ROBINSON: CFNs, BTUs, pounds, it has a pull-down that you can select your safety valves to match that criteria.

CHAIRMAN MORELOCK: Well, and so we've struggled a little bit with unfired pressure vessels in the fact that with the approval of a 140 --

MR. ROBINSON: Yes, sir.

CHAIRMAN MORELOCK: -- 140A will actually allow you to put a regulator pressure vessel into service with no relief device.

MR. ROBINSON: Okay.

CHAIRMAN MORELOCK: But when we tried to register with the State, it demands a
value in that relief device box. And so you might need a caveat in there to say, you know, no relief device required for UG140A or something like that.

MR. ROBINSON: And that's a good point. You bring up a good point. One of the things that comes to recollection is that on a ruptured disk, there is a difficulty in putting in the information for a ruptured disk, just to let you know.

CHAIRMAN MORELOCK: Yes.

MS. BARNETT: And these are all very good points. We'll need to make sure that we cover those when we discuss the requirements with the Jurisdiction Online, make sure that anything like this does not get overlooked or not completed.

CHAIRMAN MORELOCK: Yes. Mary Snyder is our gatekeeper for all of our records, and she'll call me up and say, "What am I supposed to do with this?" Because, you know, in the past, it demanded some value in there. And so this will be a great opportunity to give us some more options.

MS. BARNETT: I think so.

CHAIRMAN MORELOCK: All right. Any other questions?

MR. BAUM: (Indicating.)

CHAIRMAN MORELOCK: Yes?

MR. BAUM: Scott Baum with Hartford Steam Boilers. For companies who aren't using that, you mentioned that customers could pay online. Will they still be able to do that even if -- let's say Hartford Steam Boiler doesn't -- they're reporting the old way, which is my understanding --

MS. BARNETT: That's an excellent question. Right now, Hartford Steam Boilers is not on board with Jurisdiction Online. And the vendor, Jurisdiction Online people, have been discussing that with them. Hartford has stated they will not be, and we'll need to work with Jurisdiction Online to make sure their data gets entered so that the invoices can be paid through Jurisdiction Online.

As long as the information is there, we can have people pay through there. Just that little sticky point, we'll need to make sure that the information gets in there properly.

CHAIRMAN MORELOCK: Okay.

MR. TOTH: (Indicating.)

CHAIRMAN MORELOCK: Yes, Mr. Toth?

MR. TOTH: Just for curiosity's sake, what is the rate of charge for the online payment?

MS. BARNETT: 2.35 percent or 0.95 if you're using a check. Which the 0.95 actually is -- if you're using a check, the 0.95 is basically what you would be paying if you wrote a check and mailed it.

MR. TOTH: Right. And just to follow up, do they allow automatic withdrawal?

MS. BARNETT: Automatic withdrawal?

MR. TOTH: From the bank. Like, it's called ACH. Do they --

MS. BARNETT: They do treat it as ACH, yes.

MR. TOTH: -- allow that? And do they charge for that also?

MS. BARNETT: (No verbal response.)

MR. TOTH: Because -- the reason why I ask that because a lot of outfits out there won't charge for bank transfer but they will for a credit card and they will for a check. I'm just curious because that may be a question that you guys will have.

MS. BARNETT: The way the portal is set up, it will charge for any check process or for any debit or credit cards. We have a certain number of credit cards that we use.

MR. TOTH: I think it's wonderful. It's something that we talked about 15 years ago. It only takes that long.

CHAIRMAN MORELOCK: Any other questions or comments?

MS. JEFFERSON: When is the Boiler Unit scheduled to have their first discussions, their initial discussions with the vendor?

MS. BARNETT: The first discussion with Jurisdiction Online is scheduled for January 14th, 15th, and 16th. Three days, they'll be here.

CHAIRMAN MORELOCK: So what's the implementation schedule look like?

MS. BARNETT: As I stated earlier, it will probably be up to six months out. We don't have a set timeline right now because, of course, it will be contingent on, one, all the requirements that we have, any special needs that we have. But I am anticipating it will be June.
CHAIRMAN MORELOCK: So if we're looking amount June-July time frame, maybe we could leave this item on our discussion list and let you provide updates in March and June? Would that be okay?

MS. BARNETT: That will be fine.

CHAIRMAN MORELOCK: Okay. Very good. Anything else?

(No verbal response.)

CHAIRMAN MORELOCK: Okay. Well, that takes us to Item 10, which is our next meeting. It will be March the 13th at 9:00 a.m. here at the Department of Labor. And if there's no objection, we'll go to Item 11 and adjourn.

MS. JEFFERSON: And before we do that, I would just like to thank the Board again for your leadership, for your service. We know you-all do this free of charge, and you offer us your expertise.

And we give you what we can, you know, as a State entity, but we know that that's little compared to what you-all provide to us. And so we just want to say thank you. I hope you-all have a happy holiday.

And, again, on your collaboration with the Department, with the Division, as well as the Unit, the Boiler Unit is something that we -- it's just intangible. So we really appreciate what you-all do and we don't want you-all to take that lightly. We really appreciate you.

CHAIRMAN MORELOCK: Well, to reciprocate, we're very thankful that the State of Tennessee allows us to have a boiler board. And so we don't take that lightly. It's funny. We've had some folks come and think we're just a big rubber stamp and they leave, like, whoa, I wasn't expecting all that.

But in closing, as we adjourn, I thank you-all for coming. I know you're taking time out of your day to come in here. I hope it's constructive. I hope it's helpful. I hope it's very good at relationship building.

And we also wish you-all a very Merry Christmas, happy New Year, happy holidays, and we'll see you again in March. So travel safe if you're having to go travel today.

END OF THE PROCEEDINGS.

CERTIFICATE

STATE OF TENNESSEE

COUNTY OF WILLIAMSON

I, Cassandra M. Beiling, a Notary Public in the State of Tennessee, do hereby certify:

That the within is a true and accurate transcript of the proceedings taken before the Board and the Chief Inspector or the Chief Inspector's Designee, Tennessee Department of Labor & Workforce Development, Division of Workplace Regulations and Compliance, Boiler Unit, on the 12th day of December, 2018.

I further certify that I am not related to any of the parties to this action, by blood or marriage, and that I am in no way interested in the outcome of this matter.

IN WITNESS WHEREOF, I have hereunto set my hand this 12th day of March, 2019.

___________________________________
Cassandra M. Beiling, CCR, LCR# 371
Notary Public State at Large

My commission expires: 3/15/2020
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