



STATE OF TENNESSEE
DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
BOARD OF BOILER RULES
220 FRENCH LANDING DRIVE
NASHVILLE, TENNESSEE 37243
(615) 741-2123

MINUTES

**QUARTERLY MEETING OF THE
STATE OF TENNESSEE
BOARD OF BOILER RULES
9:00 A.M. (CT) MAY 25, 2011
TOSHA HEARING ROOM - FIRST FLOOR
220 FRENCH LANDING DRIVE
NASHVILLE, TENNESSEE**

- I. CALL TO ORDER - (7) - Chairman Lunn called the meeting to order at 9:00 a.m. (CT)

- II. INTRODUCTIONS AND ANNOUNCEMENTS - (10) - Board members present: Eddie Lunn; Eugene Robinson, Dr. Domenic Canonico; Brian Morelock; and Ed Vance. Department of Labor & Workforce Development employees in attendance: Arthur Franklin; Gary W. Cookston; Sydné Ewell; Chad Bryan; Deborah Rhone; Neil Jackson; and Carlene T. Bennett. Guests present: Daniel Bechman; James Neville; David R. Moore; Rodney Craddock; Reed Webb; William Wright; Mike Guion; and James W. Page.

(34) - Assistant Administrator Cookston announced that in the event of a natural disaster or emergency, building security personnel would direct attendees to a safe place inside the building or ask them to evacuate to the parking lot toward the Rosa Parks side of the building.

- III. CONFLICT OF INTEREST STATEMENTS - (41) - Conflict of interest statements were completed by Board members present. Chairman Lunn reminded Board members to verbally disclose conflicts of interest with agenda items prior to discussion.

- IV. ADOPTION OF THE AGENDA - (45) - Chairman Lunn clarified that the original agenda sent to the Board members had a duplication of an agenda item but a corrected agenda had been provided and it would be the one used for the meeting. Dr. Canonico made a motion to adopt the revised agenda. Brian Morelock seconded the motion. The vote was taken and the motion carried.

V. APPROVAL OF THE MARCH 2, 2011 QUARTERLY MEETING MINUTES - (82)
Brian Morelock made a motion to approve the March 2, 2011 minutes as written. Ed Vance seconded the motion. The vote was taken and the motion carried.

VI. CHIEF'S REPORT - (88) - Chief Bryan's report covered data from January-March 2011. Due to new computer system implementation on Monday, June 28, 2010 accurate data cannot be supplied on the number of delinquents and violations.

- Nine-thousand ninety-three (9,093) inspections performed.
- Seven (7) quality control reviews performed.
- Two (2) boiler variance inspections performed.

VII. OLD BUSINESS - (119)

None

VIII. NEW BUSINESS

11-03 - (121) - Carlisle Tire & Wheel Company request approval of the installation of sixteen (16) calender rolls at their Jackson, Tennessee facility be categorized as TN Specials and allowed to be registered / operated in Tennessee. These rolls were manufactured in China to a Chinese standard and are not ASME Code stamped. Mike Guion, William Wright and James Page presented this item to the Board.

Dr. Canonico had the following questions and comments:

- Would like to see an English version copy of the specification for the materials of construction, 1Cr18Ni9Ti and Q235B.
- The SA specification (SA-283) that Carlisle says is equivalent to Q235B is a structural quality steel plate that is for general use (see paragraph 1.1 Of the Scope. The SA-240 specification has a Titanium (Ti) maximum of 0.70, not 0.75 as stated in Table 1 (page 7 of 10) of the Carlisle transmittal. Further, the Ti amount is dependent on both the carbon and nitrogen amount; the N is not included in the analysis given in Table 1.
- These are used rolls have been in-service for perhaps ten or more years, they look more like scrap than viable pressure containment vessels.
- What is known about the rolls service conditions, temperature (any excursions) time, pressure (any excursions)?
- The current strength of the shell and head materials is based on hardness tests made with an Equotip rebound hardness tester. These materials are quite thin (0.105 inches for the shell and 0.280 inches for the head) and an Equotip hardness tester may not provide accurate hardness numbers.
- The approximate tensile strengths (less than 50,000 psi) for the carbon steel heads for most of the Rolls are low.
- What caused the out-of-roundness in Roll 2000-004?

- There appears to be a repair weld on Roll 2000-0004. Who made the weld repair? Was the welder and procedure qualified?
- Photo No. 2 of Roll 2000-008 has what appears to be an arc strike; what is it?
- How many long welds were made to fabricate the rolls? Roll 2000-005 appears to have more than one long seam weld.

The representatives said that the rolls were approximately ten (10) years old and were shipped basically unprotected from China so they were in need of cleaning. One roll was destructively cut to confirm the condition of the welds inside with a borescope.

Eugene Robinson had the following questions and comments:

- He tried to validate that the rolls were constructed meeting or exceeding the A.S.M.E. code and asked representatives if they had any material test reports traceable to the mill. Carlisle representatives replied, no, but the plant in China did provide them with translation for one roll. They did inspect them according to A.S.M.E. requirements but they had to accept the documentation that the design was fabricated in accordance with their pressure vessel manual and their code. Eugene Robinson said he was looking for objective evidence of quality. There were several splices on various rolls it led him to believe that there were possibly several different batches of materials and there wasn't any information provided to help him form an opinion on that. Carlisle representative said they had received documentation on the remaining fifteen (15) rolls. Brian Morelock said the materials list contain batch numbers which, if they tie back to the mill, would provide objective evidence.
- Chairman Lunn confirmed that Carlisle had the manufacturer construction and inspection data on the other fifteen (15) rolls. Carlisle representatives responded "yes" and they could use the translation of the one (1) to complete interpretation of the rest. Chairman Lunn commented that if the first one was incorrect, then the other fifteen (15) would be as far as the translation.
- Brian Morelock thanked Carlisle for the detail of their report. He asked if the rolls were in continuous operation while in China. Carlisle representatives admitted that they didn't know but the production rate as compared to their Pennsylvania company production rate seemed to indicate that it ran for two (2) shifts per day, five (5) to six (6) days per week. Brian Morelock said their calculations were fine but asked why they used the 2004 edition of the A.S.M.E. code. Since the rolls were built in 2000 they could have used the 1998 edition with the 2000 addendum. Representatives said it was the code closest to the code of the manufacturer. Brian Morelock asked if they had any records of repairs or inspections of the vessels and they said they did not. Brian Morelock said he felt certain that there is a jurisdictional requirement for inspection in China. Brian Morelock said they were setting the maximum allowable temperature at 140 ° C, these are steam heated rolls with 30.5 psi, he asked how they were going to protect the inside of the roll from

experiencing either a partial or full vacuum if there were an excursion that shut the steam supply off, allowing the roll to cool and the steam to condense. Brian Morelock pointed out that these rolls are not rated for any vacuum at all and Carlisle agreed they are not. He said on page 11 (eleven) they showed the maximum bearing moment at the center of the roll at 12,750 inch-pound due to 750 lbs reaction force but if you back the math out, it puts the length of that force at 17 (seventeen) inches which would not be the center of the roll. He asked if Carlisle was aware of the ramifications of this being approved as a Tennessee Special as outlined in Chapter 0800-03-03-.03(3), in the future every single repair performed on these rolls would have to go through Chief Bryan and all alterations would have to come back before the Board.

- Chief Bryan said that there isn't a form that allows for a secondhand vessel to be brought into Tennessee from a foreign jurisdiction, only state-to-state transfer of such vessels. Until such a form is formulated, he will accept the Boards recommendation as permission to bring these vessels into the state.
- Carlisle representatives offered to send the Chinese code to Chief Bryan for him to share with the Board members.

Brian Morelock made a motion to accept the sixteen (16) calender rolls as Tennessee Specials contingent upon inspection of a Deputy Boiler Inspector. Ed Vance seconded the motion. The vote was taken with Ed Vance, Brian Morelock and Chairman Lunn voting "aye" and Eugene Robinson and Dr. Canonico voting "nay". The motion passed with a vote of three (3) to two (2).

11-04 - (1285) - Review a request and documentation from GRACE Davidson (GD), 4000 North Hawthorne Street, Chattanooga, Tennessee for a variance to Boiler Attendant Rule, Paragraph 0800-03-03-.04(22). Chairman Lunn verbally expressed a conflict of interest with this agenda item. James Neville and David R. Moore presented this item to the Board. The plant operates one (1) high-pressure boiler on demand twenty-four (24) hours per day, five (5) days per week, furnishing high-pressure steam for process heating only. The request is also for six (6) different remote stations due to the plant running different batch material in different locations and the Site Plan in Figure 1 (one), page two (2), shows the proximity of each remote station to the boiler room. If the remote attendant must for any reason leave their post, they can transfer authority to another remote station, or boiler operator, or the remote attendant wears a wireless tether that annunciates alarm conditions and allows the remote attendant to turn off the alarmed boiler remotely.

- Dr. Canonico stated his concern that in the remote operator duties in Appendix H, actual monitoring of the boiler seemed to be a secondary consideration.
- Brian Morelock requested the job descriptions in Appendix G and H under "Essential Job Functions" to include specific boiler duties in red font.
- Eugene Robinson asked that on page 7 (seven) it state that training will be provided for the remote attendant.

- Chairman Lunn said there are six (6) locations if there are more than one (1) but less than seven (7) people, who has main authority? James Neville said the procedure for changing from one station to the next would be that they call the remote station to have authority switched between the two (2). In the event the other station is not occupied the radio tether would be utilized until they occupied the new remote station. The person with the radio would be the primary authority to shut down the boiler in the event of an emergency. The Board asked for clarification of this issue in the manual.

Eugene Robinson made a motion to approve the variance contingent upon suggested changes to the manual being made and inspection by a Deputy Boiler Inspector. Dr. Canonico seconded the motion. The vote was taken and the motion carried with Chairman Lunn abstaining.

11-05 - (1613) - Review a request and documentation from Trelleborg Coated Systems US, Inc., 5680 Commerce Blvd, Morristown, Tennessee for a variance to Boiler Attendant Rule, Paragraph 0800-03-03-.04(22). Chairman Lunn verbally expressed a conflict of interest with this agenda item. James Neville and Rodney Craddock presented this item to the Board. The company operates three (3) high-pressure boilers on demand twenty-four (24) hours per day, seven (7) days per week, furnishing high-pressure steam for heating and process.

- Eugene Robinson suggested they remove reference to the specific version of the Guidelines for Computerized Remote Monitoring of Boiler Systems document on page eight (8), number six (6), as versions change from time to time. Also, on page one (1), line two (2), the first word should be changed to sheet-fed.
- Dr. Canonico pointed out that in several different job descriptions the manual says "*serves as remote boiler monitor*". He asked if that might cause confusion on the part of the employees to know who that individual is at any one time. Mr. Craddock said the supervisor would be the remote boiler monitor about ninety (90) percent of the time in the event he had to leave he would designate someone else to perform the task. Dr. Canonico said in Appendix D, Organization Diagram, it has at least three (3) different positions that are labeled "remote attendant".
- Brian Morelock asked where the call list would be in the event of an emergency. Mr. Craddock said it would be posted at the remote station.

Brian Morelock made a motion to approve the variance contingent upon the suggested changes to the manual and inspection by a Deputy Boiler Inspector. Ed Vance seconded the motion. The vote was taken and the motion carried with Chairman Lunn abstaining.

11-06 - (1781) - Discussion of proposed revisions to items three (3) and (30) of the *Checklist for Attendant Variance Requests*. Also discussion of a proposed

revision to the *Frequently Asked Questions (FAQ's)* to add a definition of a "modified variance".

- Chairman Lunn asked should the person submitting requesting the variance request identify the checklist revision number since the Board is approving the variance for a period of three (3) years. The discussion was tabled until a later date.
- Item 3 - Item 3 asks three questions, but has one Applicant Response. The suggestion was to revise the current Item 3 into 3a, 3c, 3d, and add a 3b. It was agreed that it should changed to:
 - 3a. Does the cover letter request a variance?
 - 3b. Does it indicate the physical address, exact location of the power boiler(s) and a contact phone number?
 - 3c. Does it confirm that a company representative will be present at the quarterly meeting of the Board when the variance request is being considered?All three questions should be divided into separate line items, each one with a yes, no, and N/A option in the Applicant Response section.
It was suggested that question 3b read: "Is this a renewal request?" however this question is already asked in Item 9.

A motion was made by Dr. Canonico to make the discussed changes to Item 3 and for it to become Rev. 9. Ed Vance seconded the motion. The vote was taken and the motion carried.

- Item 30 - Item 30 should have two questions:
 - 30a. Do the remote monitoring personnel have other duties?
 - 30b. Can these other duties distract from the remote monitor's responsibilities toward the boiler(s)?Each question should have a yes, no, and N/A options in the Applicant Response section.

A motion was made by Dr. Canonico to make the discussed changes to Item 30. Brian Morelock seconded the motion. The vote was taken and the motion carried.

- IX. RULE CASES & INTERPRETATIONS - (2061) - THERE WERE NO RULE CASES AND INTERPRETATIONS.
- X. (2065) - THE NEXT BOARD OF BOILER RULES MEETING IS SCHEDULED FOR 9:00 A.M. (CT), WEDNESDAY, SEPTEMBER 7, 2011 AT THE DEPARTMENT OF LABOR & WORKFORCE DEVELOPMENT OFFICE BUILDING LOCATED AT 220 FRENCH LANDING DRIVE, NASHVILLE, TN.
- XI. ADJOURNMENT - (2075) - The meeting was adjourned.