# Board of Boiler Rules Meeting Minutes
# November 20, 2024
# Department of Labor & Industries, Hybrid Meeting

Board Members:

Tim Barker, Chair
Keith Black, Boiler Operators
Michael Kipper, Manufacturers
John Pittman, Professional Engineers
Stephanie Gross, Owner/Users
Michael Carlson, Secretary

Other Attendees:

Brian Hornback, State of Washington*
Alicia Curry, State of Washington
Meagan Edwards, State of Washington**
Don Sage, State of Washington
Jason Stedman, State of Washington
Ken Bechard, EPSI
Daniel Schober, Phillips 66
Donald Frye, Phillips 66
Lane McIlvoy, Phillips 66
David Bacon, Chubb**
Craig Bierl, Chubb**
Jeff Frazier, IUOE 302**
Josh Swanson, IUOE 302**
Terry Chapin, Retired Chief Operating Engineer**
Danny Kane, Bodycote**

* Attended Study Session only
** Attended Board Meeting only

The Board of Boiler Rules meeting began at 10:05 a.m. Discussion summaries are incorporated in the meeting minutes.

**Agenda Item 1 – Approval of Agenda**

Agenda was discussed in the study session. Only alteration of the agenda was to move the discussion of the alteration package from the department notes section to line item 5. Agenda was updated. No additional questions on the agenda. Tim Barker asked for a motion to approve the agenda.

Keith Black motioned to approve agenda. Stephanie Gross seconded. All voted aye, motion carried. Agenda approved.

**Agenda Item 2 – Review and approve minutes from August 20, 2024 meeting**

The August 20, 2024, Meeting Minutes were discussed at length in the study session. No additional questions.

Stephanie motioned to approve minutes, Keith seconded. Tim called for a vote. All voted aye, motion carried. Minutes approved.

**Agenda Item 3 – Review of Phillips 66 Request for Extension of Inspection Frequency for CO Boiler 9058-03W (a.k.a. 4F-100)**

Daniel Schober discussed the request for one-year extension to the current five-year inspection interval. The request is based on a long history of safe boiler operation, with no elevated corrosion rates or signs of overheating that would raise concerns. The facility maintains good water quality and regularly tests safety systems, including monthly testing of low-water cutoffs. Pressure safety valve testing is scheduled for 2025. Additionally, the facility is staffed 24/7, with an operator continuously monitoring boiler controls in real time.

The proposed extension would shift the next inspection to September 2028, following the last inspection in 2022. This is a one-time extension, after which inspection intervals will return to the standard five years.

Tim entertains motion to approve the extension. Mike Kipper motions to approve. Stephanie Gross seconds the motion.

After clarifying the timeline and addressing questions, Tim asked for vote to approve the request. All board members vote "Aye".

Motion to approve the extension is passed.

**Agenda Item 4 – Authorize CR-102 to proposed rule changes**

Mike Carlson summarized rule changes for the board.

WAC 296-104-010: Clarified language for pool heaters. The proposed change exempts pool heaters without shutoff valves on the discharge side from inspection requirements due to being considered open to the atmosphere.

WAC 296-104-700: A proposed 6.2% fee increase for all fees, pending confirmation of final fiscal growth factor rate.

Meagan Edwards discussed that the CR-102 is scheduled to be filed on January 2, 2025. Currently the preliminary fiscal growth factor rate is 6.2%. The adopted finalized fiscal growth factor rate should come out soon.

The board discussed possible fluctuations in rates, but did not ultimately anticipate significant changes.

No additional questions were asked and Tim Barker entertained a motion to approve the CR-102 for proposed rule changes. Keith Black motions to approve. Stephanie seconds the motion.

All board members unanimously voted "Aye" to approve. Motion approved.

**Agenda Item 5 - Review alteration package of vessel 00009-98WS**

Ken Bechard provide background on the alteration request. He explained that the vessel is undergoing alteration due to corrosion that exists on the outside diameter of the vessel cylinder. It was necessary to

remove that corrosion in order to be able to perform a full 100% surface examination. He indicated that this is a magnetic particle examination that occurs every two (2) years and interval is expected to be maintained from here forward. With the dimensional Change EPSI will perform the alteration in accordance with national board current 2023 code.

There is a design report revision in accordance with the same code the vessel was initially designed, which is ASME Section 8 Division 2. The vessel is not code stamped coming from its original manufacturer. It was accepted as an equivalent to Div 2 design originally and the package is presented that it would still be in accordance with design calculation for the current edition 2023. They will be doing an alteration plan per NBIC that will be fully reviewed by their authorized inspection agency, HSB.

Ken then presented the alteration plan to the board. He re-iterated that ASME Section 8 Div. 2 2023 will be used for the ongoing analysis which is in progress currently. They will then use the guidance of Div. 3 to perform the fracture mechanics evaluation to provide information on fracture mechanics life which will be used to confirm that the current inspection interval of every two (2) years is still appropriate.

Item 30 of the report indicated that each of the code pressure retaining components are properly identified and stamped.

Item 35 is to perform a full wet fluorescent mag particle surface exam as well as an ultrasonic volumetric exam for all the pressure retaining components.

Item 40 is 2 sections, one for the closure and one for the vessel itself. Both had the same exams but had to be done in two separate locations.

Item 45 is the machining of the vessel body to remove the corrosion.

Tim Barker then asked a clarifying question if EPSI will be machining the internal surfaces. Ken clarified that they will be machining the external surfaces.

Item 50 is to perform magnetic particle testing again after the machining but before the pressure test, which is the stage that they are currently at.

Item 55 is to assemble the pressure vessel and then pressure test. Ken clarified that there will be a separate pressure test procedure that will display all the details of the test.

Tim asked, “What pressure are you going to be Hydro-ing to?”

Ken replied that it will be a pneumatic test due to the vessel’s normal operating condition being pneumatic. The pressure test will be with Argon gas and will be to the maximum operating pressure of 29,000 psi (29 KSI). Ken also indicated that currently the maximum allowable working pressure it is limited to 29 KSI based upon work that was done in 2001. This would require it to have safety relief valve over pressure protection at 29,000 psi.

The new design report shows that the original maximum operating pressure of 31.9 KSI is appropriate, then the operating pressure could be set to 29 KSI. It will all depend on the results of the analysis.

Mike Carlson clarified with Ken that the rupture disc will have to adjusted and replaced with something else higher. Ken replied that it will be replaced with something in the interim range between 29 and the

new design. The new analysis is going to inform whether that is still appropriate.

Stephanie asked, "What is the reasoning for not doing a normal Hydro?"

Ken replied that it is a gas fired vessel and introducing water to that is posing a risk of damaging electrical components that are needed to run. Additionally, the basic consumption of life of the over-pressurization, reduces the life of the vessel and according to their AI, there is an unnecessary risk to go to a higher pressure because all of the components have already been tested to the full height of test pressure. These have been tested twice, once at the original manufacturing and again in 1985.

Ken then discusses the NBIC section 4.4.2 for alteration test methods speaking to the pressure testing required for an in-service vessel being a combination of a pressure test followed by a magnetic particle exam of the altered component. That pressure test is a modified pressure test, which is the maximum operating pressure to be performed to prove that the part is capable of withstanding the maximum pressure it's going to ever see during operation, followed by the non-destructive examination test.

Tim asks a clarifying question to Mike Carlson of if the law says anything about pneumatic testing.

Mike indicates that the law only states for new construction.

Ken then explains how the pneumatic test is going to work. He explains that the pressure will be increased in 10% increments up to the maximum operating pressure and then held there for 10 minutes. The pressure must not decrease by 5%. Anything over a 5% would be considered a leak. If this were the case, they would then release the pressure, fix the leak, and then commence the test. The witnessing AI will be there to monitor that the pressure is holding for the 10 minutes.

The gauges to be used will be two redundant gauges that are calibrated within EPSI's calibration program. Ken indicates that they will bring their calibrated gauges to the site for testing.

Ken discussed the stamping of the vessel. The alteration stamp will be applied adjacent to the original stamping that is currently on the vessel. It will say "Altered by EPSI" and contain the date which will be the date of the pressure test. It will also contain the design and operating pressures based on the analysis with an "R" stamp. The Inspector can verify that the pressure relief devices are set properly at this time.

Ken then discussed Item 70 of the report being the design drawing showing pertinent components, pressure retaining components, and the design information. The drawing will be refreshed with the ID and OD, the thickness of the closures, and all of the pertinent dimensions such that they match with the analysis that is being performed and reflect the current actual geometry of the vessel.

Ken explained that the area that ws machined away is about 0.2 inches deep and 4 inches down from the top and up from the bottom of the vessel. The new design drawings will reflect all of that information.

Once complete, the whole package will be reviewed by EPSI and copies will be provided to Mike Carlson, Chief Boiler Inspector for state of Washington and the owner/user of the vessel Bodycote. A written acknowledgement of receipt of the package from the state of Washington was requested.

David Bacon will then be responsible to update Jurisdiction Online with the information on the altered package.
Mike Carlson requested that Ken send over the safety procedure for the pneumatic test. Ken

acknowledged.

Tim Barker then asked if there were any additional concerns based on the presentation today or from the study session the day prior.

No additional questions were asked.

Tim indicated that there is not a need for the board to vote on this procedure. He also indicated that EPSI has covered all of their bases covered.

EPSI indicated that they will keep the board apprised of any updates to the testing. Ken also indicated that the pressure test will be scheduled to be performed within the next two weeks and then results will be shared.

**Department notes**

Mike Carlson presented quarterly boiler program inspection information to the board.

Inspections completed from August 1, 2024- October 31, 2024

The following information is regarding current workload and overdue inspections in the Boiler program. Data collected 11/18/2024. Currently, there are:

149 State Commissioned Inspectors

Inspections in the last quarter- August 1, 2024- October 31, 2024
406 Internal boiler inspections. (444)
2,051 External boiler inspections. (1,840)
12,188 Pressure vessel inspections. (11,958)

Total inspections = 14,646 (14,244)

The Statewide overdue rate average is 9.8%, (9.6) with 11,462 (11,200) (60 days or more overdue) without a valid certificate.

As of 11/18/2024, 4,641 new objects have been added this year.

Current total of objects is 116,718 (116,993)

There were 515 violations opened, 190 were closed last quarter. (512,190)

Currently there are 346-boiler, and 1,053-pressure vessel violations open which totals 1,392.
(346, 1,046, 1,399)

One red tag violation opened last quarter. (1)

Respectfully submitted,
Mike Carlson.

Mike Carlson elaborated on the red tag incident that was issued last quarter. A boiler that had a minor

furnace backfire that discharged some ductwork. No injuries were reported and the vessel was replaced.

Mike also discussed 2 positions on the board that need to be acknowledged. One is Keith Black who is up for renewal in August, whom they hope will reapply for a second term. For the Insurance side, Tim Barker is continuing on.

Tim Barker asked about the procedure for re-applying?

Mike Carlson stated that he will help out and that anyone can go into the Governor's board to submit an application.

The next Board meeting will be February 5 which will also have the Public Hearing for the proposed WAC rule revisions (CR-103).

Tim Barker Motions to adjourn the meeting. Stephanie motions to adjourn the meeting. Keith Black seconded the motion.

Tim called for a vote.

All board members voted "Aye."

November 20 session of the Board of Boiler Rules meeting is adjourned.