**Board of Boiler Rules Meeting Minutes**

**May 22, 2024**

**Department of Labor & Industries, Hybrid Meeting**

Board Members: Other Attendees:

Tim Barker, Chair Alicia Curry, State of Washington \*\*

John Pittman Meagan Edwards, State of Washington \*\*

Mike Kipper Andy Worline, State of Washington\*\*

Stephanie Gross Troy Green, Lanxess Corp.

Mike Carlson, Secretary Alan Watkins, Lanxess Corp.

Lance Warthen, Lanxess Corp.

Ken Barkdoll, Arise Insurance\*\*

Barry Jostol\*\*

Andrea Major\*\*

\* Attended Study Session only

\*\* Attended Board Meeting only

The Board of Boiler Rules meeting began at 10:03 a.m. Discussion summaries are incorporated in the meeting minutes.

**Agenda Item 1 – Approval of Agenda**

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

**Agenda Item 2 – Review and approve minutes from February 21, 2024 meeting**

The February 21, 2024, Mike Kipper motioned to approve minutes, John Pittman seconded. All voted aye, motion carried. Minutes approved.

Recess board meeting for public hearing.

**Agenda Item 3 – Public Hearing**

**Agenda Item 4 – Approval of CR-103 filing**

Stephanie Gross motioned to adopt CR-103 for filing. Mike Kipper seconded. All voted aye, motion carried

**Item 5 – Extension of internal inspection frequency request for 6 vessels**

State ID numbers of the 6 vessels-

23072-62W: Condensate Tank T109

24812-78W: Deaeator Tank T50

21638-71W: Condensate Tank T29B

27146-95W: Condensate Tank T-151

29701-88W: Deaeator Tank T-1171

26042-93W: Condensate Tank T-1177

Extension of internals to a maximum of 10 years or half remaining service life of the vessel. Aligns with internal plant turn around that they do. Six vessels they have are part of the system that requires them to take down the facility, can’t be taken down separately. No corrosion noted, minor pitting that has been managed and monitored with no changes noted. History on those, original manufacturer since 1960-1980 had them in the service some for entirety of their life in the facility, so can see what the history is. Inspections done so far have been internal, UT visuals, 100% mag particle testing on welds. Found in couple situations minor cracks which were repaired, but not a lot of repairs done to these vessels or corrosion. Water chemical testing done onsite once a day or sometimes twice a day, so monitoring water treatment of the vessels. Board wants to take as individual discussions per vessel.

T109 is 24 in diameter vessel which would allow per state law ultrasonic thickness testing in lieu of internal from the law standpoint. Board was comfortable with continuing to do 2 year UT thickness testing of that vessel. Still do internal inspections up to a 10 year frequency, physically, with assistance of NTE firms under API 510.

T50 – reviewed report. Isolated pit in the vessel – 2018 no repair done, inspected from previous 2012 inspection and no change from pit depth. It is on their list to repair during next outage scheduled for later this year. They have monitored it from the outside doing UT measurements in that area for any growth and change and haven’t seen any. Michael concerns over half the depth of material. Manufacturer Vessel corrosion allowance is 1/16 of an inch. Accuran report. Stephanie asked how deep is linear indications? 1/4 in. long light grinding and weld repaired. Deepest pit was 5/32 in. (isolated pit) in 2018. 2021 UT assuming from the outside they gave 0.277 in. the pit versus 0.299 in. on the external around the pit. Localized pitting in the vessel but not a general area, small pits elsewhere in the vessel less deep that was noted.

Michael asked (all vessels) regarding adding something to inhibit corrosion? Normal practice with boiler chemistry have corrosion inhibitors on a steam system. Supplies of chemicals they use they monitor the PH to make sure not having accelerated corrosion on the vessels. If don’t add chemicals see increase in corrosion. Otherwise would have to replace the vessels at a much higher frequency. If failure in water treatment system – keep running or bring down the plant? They would contact Selanis our water treatment company to find out what adjustments need to be made, she comes in on a weekly basis. We test daily ourselves. Would have to monitor and make an adjustment or repairs to that system. Plant would remain running, but need to make repairs to that system. If outside operating limits, do a review of vessel for fitness of service, to make sure integrity to operate.

T-29B – don’t have 2018 inspection report with them. Assumed board reviewed. An internal done, all weld seams were 100 MT. None specified on the U1 for corrosion allowance. Calculated min thickness (shell) is 0.422.

T151 – Max allowable working pressure 375 PSI, subject to 100% MT. A note 3 inch by 16 in distortion on NE side of shell. Tim asked what does a distortion mean? Lanxess - From photo where there was an attachment on the exterior possibly. Operating pressure is at 35-40 pounds. Tim didn’t see any issues with results on magnetic particle exam in 2018.

T-1171 – DA Tank – Manufactured in 1986 – 100% MT, ¼ in. linear crack that was repaired, no other issues noted. Tim asked have found indications in this area around manway in the past? Lanxess – in 2010 there were also some found and removed. What they found was a longitude indication near west head shell intersection. In 2018, they went in and found one linear indication was repaired. Each DA tank is a different system. Lanxess has two systems at their site and a DA tank for each one.

T-1177 – Subject to 100% MT, inspector report that multiple linear indications found on nozzle N1 and all repaired. Also noted indications were a ¼ in. and indication original manufacture marking from building of vessel were still on vessel wall which indicates no corrosion. Looks like getting reasonable results from mag particle in Tim’s opinion. Did wet mag assigning it through future inspections? Lanxess assigned general corrosion and local corrosion along with corrosion fatigue cracking as damage mechanisms. Their recommendations is to continue to inspect to wet mag at each outage, which is their inspection plan.

Next scheduled outage is September. Tim noted in state database that three of the vessels 2109 already established ultrasonic thickness test by Accuran or other NTE firm done online. T-29B last internal inspection was 2018. T-50 internal inspection March 8, 2022. T-151 internal inspection in 2018. T-1171 internal inspection 5/1/24 due 5/1/26 at minimum. T-1177 last internal inspection March 8, 2022. As a minimum Tim argues at next shutdown this year internals need to be done on T-50, T-29B, T-151, and T-1177. Preferable they do full scheduled outage and do them all. Lanxess that is their intent. T-109 is currently inactive. Will have Johnny come back in and make it active. Tim recommended internals and have report be available to inspector when doing external inspection.

Tim asked if board comfortable with proposed request or stipulations?

5 year UT proposed on all vessels externally during operation. 100% MT during internals at max every 10 years.

Tim proposes to board take T-109 out of the request and have UT tested every 2 years to meet WA state law for UT in lieu of physical internal inspection. Remaining 5 to do 5 years UT from outside on remaining vessels and internals during schedule outage to max of 10 years not to exceed half of remaining life or whatever is less and 100% MT.

Stephanie motioned to approve request as discussed to extend the internal frequency of the five vessels. John seconded**.** All voted aye, motion carried

**Department Notes**

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

Inspections completed from February 1, 2024- April 30, 2024

The following information is regarding current workload and overdue inspections in the Boiler program. Data collected 5/20/2024. Currently, there are:

142 State Commissioned Inspectors

Inspections in the last quarter- February 1, 2024- April 30, 2024

233 Internal boiler inspections. (414)

1,782 External boiler inspections. (1,927)

9,963 Pressure vessel inspections. (11,547)

Total inspections = 14,592. (11,978)

The Statewide overdue rate average is 10%, (9.5) with 11,685 (11,057) (60 days or more overdue) without a valid certificate.

As of 2/19/2023, 1,935 new objects have been added this year.

Current total of objects is 116,900 (116,846)

There were 539 violations opened, 234 were closed last quarter. (372,404)

Currently there are 312-boiler, and 992-pressure vessel violations open which totals 1,304.

(278, 979, 1,257)

2 red tag violation opened last quarter. (2)

Respectfully submitted,

Mike Carlson.

Next meetings is August 20 & August 21.

Tim thanked Lanxess.

Adjourned 11:39 a.m. All voted Aye and adjourned.