

## Common Boiler/Pressure Vessel Inspection Deficiencies

Even with expert installation and regular maintenance, equipment breaks down. LGIT provides equipment breakdown coverage (with a \$10,000 deductible) to our members at no cost. Once commonly referred to as “boiler and machinery breakdown,” this coverage, through CNA, includes a wide variety of value added services to our members including free inspections, infrared testing, and training seminars.

One of the most important services offered by CNA is on-site inspections for electrical systems, HVAC systems, boilers, and pressure vessels. This service is critical for two reasons. First, the state of Maryland no longer inspects these systems or equipment, but does still require owners to provide it with documentation that these systems and equipment are in compliance with State laws and regulations. Second, it is critical that new systems and/or equipment be inspected to ensure that they have been installed correctly, are fully operational, and are in compliance with State laws and regulations.

We asked our partners at CNA to identify the most common installation problems they encounter while inspecting boilers/hot water heaters and other types of pressure vessels.

They identified the following:

- Lack of a check valve in the make-up water line
  - Each boiler or boiler system must have a check valve and stop valve in the make-up water line. The stop valve and check must be as close as possible to the boiler valve outlet piping.
- Lack of or improperly installed outlet piping
  - Outlet piping must be made of black iron or copper
  - Outlet piping must be anchored in place
  - Outlet piping can contain no more than one elbow

- Exhaust Stack(s) improperly sloped away from the boiler or water heater
  - Exhaust stacks must be sloped upwards at least ¼” per foot (21 mm/m) from the boiler to the vent terminal
- Hot water heater missing an outlet thermometer
  - Each hot water heater must have an outlet thermometer either built in or mounted on the outlet pipe
- Air-compressor(s)
  - Lacking vibration isolation / shock absorbing pads – each foot of a tank having an air-compressor installed on it must have vibration damping under each foot and each foot must be bolted to floor
  - Tank drain not working

### **Frequency of Inspections**

Under State law, boilers, hot water heaters, and pressure vessels must be inspected when they are installed and then again annually or biennially depending on the type of equipment. When equipment passes inspection, the State issues a Certificate of Inspection. Boilers cannot be operated without a Valid Certificate of Inspection.

If the State does not receive a report that an inspection was performed and that the equipment passed inspection, the State can issue a fine and suspend an operating certificate. The same is true if the State issues a citation requiring that corrective action be taken and the owner fails to take that action and/or fails to report that corrective action has been taken.

### **State of Maryland Fines**

If your boiler or pressure vessel operating certificate has expired by more than 40 days, the State will send a Warning Citation Letter. If you receive such a letter, you have 15 days to request a hearing. Once the State receives a hearing request, the fine is placed on hold until after the hearing is conducted.

During the hearing, the State will want to know what prevented you from completing an inspection and/or making any necessary repairs. Typically, the fine is reduced or waived if you can show you made a good faith effort to comply with State requirements. Failure to respond to a Warning Citation Letter will result in the issuance of a citation once an operating certificate has expired by more than 60 days.

Generally, the fine assessed for allowing an operating certificate to expire is \$750 per violation, but could be as high as \$5,000 per violation. Although the fine can be assessed the day after the operating certificate expires, the State generally waits 60 days before assessing fines to ensure that reports have been entered.

If you do not request a hearing and then fail to pay the citation, the State will send you two follow-up notices. After that, if you still have not paid the fine, the matter will be forwarded to a collections agency.

In addition, if a boiler or pressure vessel fails inspection and remains in violation of State laws and regulations for more than 30-days, the owner is subject to citation.

**Our thanks to Dave Zalusky, Risk Control Consulting Director, CNA Equipment Breakdown Risk Control for providing the information for this article.**

If you would like further information regarding equipment breakdown coverage, please contact Scott Soderstrom, LGIT Director of Underwriting.