## Inspections on Air Compressor Vessels

By Debbie Hill

Recently, an NJGCA member was visited by an inspector from the State of New Jersey Department of Labor, Bureau of Boiler and Pressure Vessel Compliance, out of the Trenton Office. The member was advised that his Air Compressor must be inspected by either a State Inspector from the Bureau of Boiler and Pressure Vessel Compliance, or by his insurance company.

Our member was given thirty (30) days to comply with the registration and inspection of his pressure vessel (air compressor). His insurance agent was un-aware of these regulations, and called the insurance company for clarification. The insurance company advised that it is not the compressor which must be inspected, but rather the air tanks with which the compressor is associated. In NJ, pressure vessels are required to undergo inspections, and air tanks are considered to be pressure vessels. This has been in effect since 2008. If you have a stand-alone air tank or a tank with a compressor mounted on it, NJ regulations require it to be registered and inspected.

I spoke with Rick Hendrickson, an inspector at the Bureau of Boiler and Pressure Vessel Compliance. He explained the following: the bureau inspects air compressor receivers (the vessel), not the compressor itself. What is included in a normal inspection of the vessel? The inspector will check to make sure the vessel is properly bolted to the floor; since the compressor creates vibration, they check to make sure vibration absorption material has been used between the vessel and the floor. Additionally, is the vessel drained regularly? The process of compressing air generates moisture inside the tank. Tanks may look good from the outside, but often they rot from the inside out.

The bureau will check to ensure that proper maintenance is being performed by draining the water that is built up inside the tank. If it takes too long for the water to drain out, they know that the vessel is not being properly maintained. This is a concern because too much water buildup will cause accelerated deterioration to the tank from the inside.

Inspections also check the pressure relief device, guard over drive belts, electrical wiring, and the piping to the compressor. The piping must be metal. No PVC piping materials can be used on air compressors. Any PVC piping will result in an automatic failure and your vessel will be **red tagged**. A **red tag** means the vessel can't be used and must be remediated immediately. Other items that will automatically **red tag** your vessel are frozen handles, expansion of tank when the compressor is turned on, and any cracks in the vessel. A vessel with a crack must be repaired by a certified welding shop that has an R-Stamp, certifying that the company is certified by the State of New Jersey to perform welding repairs on pressure vessels.

Some violations allow 90 days for repair, permitting you to continue using the vessel. This would be the case if the vessel is not properly bolted to the floor, there are

not proper safeguards covering the belts, or if there is water in the tank. Then, you can call to be re-inspected after you have made the necessary repairs.

Based on the condition of your vessel, the inspector will make a determination if your vessel needs a U-T (ultrasonic testing) which will indicate if there is excessive deterioration inside the tank. This test can cost up to \$1,000, so it is a good idea to drain the tank regularly to avoid any suspicion of accelerated deterioration.

Once your vessel has been inspected, the State of New Jersey will send you the registration and an invoice to cover the \$20.00 inspection fee. This applies if your vessel was inspected by the Bureau of Boiler and Pressure Vessel Compliance. The State will automatically contact you for the next inspection, normally in three years. However, if your vessel is nearing the end of its life expectancy, the bureau may determine that your vessel requires an inspection every six months or annually.

To determine if your vessel is properly registered, you can call the NJ Bureau of Boiler and Pressure Vessel Compliance at: 609-292-2345. However, you can also check your vessel's identification number. The number will include: NJ, 6 digits, year of last inspection, and the letter U. Ex: NJ123456(16)U -- this vessel was last inspected in 2016 and should be in compliance until 2019. If your vessel says (13), you are probably due for an inspection soon! You can reach Rick Hendrickson at the New Jersey Bureau of Boiler and Pressure Vessel Compliance at 908-420-5602 or reseau.hendrickson@dol.state.nj.us

