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Safety Valve Pressures and Pressure Vessel Periodic Inspection Exemptions

ASME, Section VIII, UG-134 (2005 Oregon Boiler Specialty Code)

Statute:

Oregon Revised Statute (ORS) 480.525(3)(d)

Date: July 2008

Subject: Safety Relief Valves and Exemptions from Periodic Inspection Requirements

Background:

ASME, Section VIII, UG-134 regulates the settings of safety valves by providing that one safety valve must be set no higher than the maximum allowable working pressure of the vessel. Any additional safety valves may not exceed 105% of the maximum allowable working pressure.

ORS 480.525 contains a list of boilers and pressure vessels that are exempt from some of Oregon's boiler and pressure vessel laws. One of the exemptions is ORS 480.525(3)(d), which provides:

“Pressure vessels being operated at gauge pressures of less than 15 pounds per square inch and equipped with a pressure relief device set to open at a pressure that does not exceed the lesser of the pressure vessel's maximum allowed working pressure or 15 pounds per square inch gauge pressure.....are exempt for ORS 480.510 to 480.670, except as to all provisions relating to construction, installation, alteration or repair...”

In other words, a pressure vessel operated at less than 15 psi and equipped with a safety valve (pressure relief device) that does not exceed 15 psi is exempt from periodic inspection requirements.

Question:

Does the operating pressure of the vessel, the safety valve, or the vessel's maximum allowable pressure determine whether a pressure vessel is exempt from periodic inspections under ORS 480.525(3)(d)?

Answer:

The safety valve determines the vessel's exemption status because the valve establishes the *highest possible operating* pressure of the vessel.

For example, if a vessel is being operated a 5 psi, but has a safety valve set at 50 psi and a maximum allowable operating pressure of 100 psi it is **not** exempt. It is not exempt because it has the potential to be operated at 50 psi with the existing safety valve. Since the vessel can be operated at higher than 15 psi it must receive an operating permit and a periodic inspection. To exempt this pressure vessel, the owner could relace the 50 psi safety valve with a 15 psi safety valve.

Contact:

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