

# **RISK MANAGEMENT BULLETIN**

## **BOILER AND PRESSURE VESSEL INSPECTION REQUIREMENTS**

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We would like to notify everyone of some inspection requirements for boilers and pressure vessels installed and operated in the State of Maine that may affect some of the buildings insured by Risk Management. This bulletin briefly covers some of the topics addressed in the law and rules; however, they should be reviewed to ensure all requirements are complied with.

Maine law requires all non exempt boilers and pressure vessels be registered and inspected in a manner determined by the Board of Boilers and Pressure Vessels. The Chief Boiler Inspector for the State of Maine is charged with the enforcement responsibilities of the Board. Here is some general information to assist you with understanding the State's and the Board's requirements.

Maine Law 32 MRSA 15102: Exemptions: lists boilers and pressure vessels that are exempt from the requirements of the Board. Any boiler or pressure vessel not exempt is required to comply with the requirements of the Board. In this bulletin we will try to list some of the various types of equipment that are required to be registered and inspected on a routine basis. If you are in doubt as to whether or not a boiler or pressure vessel needs inspection, you are encouraged to call the Board office for advice. Contact Deputy Chief, David E Corey at 207-215-6536, or Inspector Carl Edgecomb at 207-592-0226

Boiler requirements are not well understood by most boiler operators or owners. Steps are being taken to rectify these issues at this time and to ensure a well informed public.

All boilers require an annual certificate inspection. A high pressure steam boiler operates at a steam (vapor) pressure greater than 15 pounds per square inch gage (psig). A high pressure hot water (liquid) boiler operates at a temperature higher than 250 degrees F., and a pressure higher than 160 psig.

All low pressure boilers that are used for or in a process require annual inspection and routine internal inspections. This would be a low pressure boiler, either steam or hot water that is used in a process or industrial environment for other than space heating purposes.

Low pressure boilers used to heat schools or municipal owned buildings require annual operational inspection and routine internal inspection. Water heaters not exempted by 32 MRSA 15102; also require inspection if located in a school or municipal owned buildings. Low pressure boilers and water heaters may be exempt from the annual inspection requirements per 32 MRSA 15102, but must be initially inspected during installation and comply with the States adopted installation codes and requirements.

The requirements for pressure vessels are not as widely understood. The pressure vessel inspection requirements have been in effect since July 15, 1998. Despite this requirement, it is felt that the majority of installed pressure vessels fail to be located and inspected within the

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State. Pressure vessels require a certificate inspection once every three years by operational testing of safety devices and if not an internal inspection the inspector must verify vessel body thickness by some other means. This is to ensure pressure vessel integrity.

In Title 32 MRSA: 15102 of the Maine Laws and Rules there are various exemptions for Pressure Vessels; it is easier to actually reference these in the Laws and Rules than to list them. Much like boilers, pressure vessels located in federal and small residential buildings are exempt. Additionally, vessels in stamped Department of Transportation containers are also exempt. The most typical pressure vessels encountered are air compressor air receivers or hot water storage tanks larger than 120 gallons. The Chief Boiler Inspector estimates that as of late 2006 there are at least 20,000 objects yet to be registered within the State of Maine.

These rules mean that just about any school, garage, workshop, laboratory, laundry, testing facility, facility where people live or reside, manufacturing facility, and the like has a boiler or pressure vessel that requires inspection. Title 32 MRSA 15120 of Maine law states that Authorized inspectors shall inspect the boilers and pressure vessels insured by their respective insurance companies. If Risk Management is your organization's insurance "company" or insurance resource then please be sure to report the location of all boilers and pressure vessels you know or think need to be inspected so that required inspections can be ordered and done in compliance with Maine's laws and rules.

**A list of typical Pressure Vessels which may require inspection in the State of Maine  
(this list is not all inclusive)**

<b>Agitator Tank</b>	<b>Digesters</b>	<b>Nitrogen Tank</b>
<b>Air After cooler</b>	<b>Distillation Vessels</b>	<b>Oxygen Tank</b>
<b>Air Dryer</b>	<b>Dryer Roll</b>	<b>Process Vessel</b>
<b>Air Intercooler</b>	<b>Dye Kier</b>	<b>Propane Tank</b>
<b>Air Oil Separator</b>	<b>Evaporator Tank</b>	<b>Refrigerant Receiver</b>
<b>Air Separator</b>	<b>Expansion Tank</b>	<b>Retort</b>
<b>Air Tank</b>	<b>Feed Water Heater</b>	<b>Steam Chest</b>
<b>Ammonia Receiver</b>	<b>Filter Tank</b>	<b>Steam Cooker</b>
<b>Autoclave or Sterilizer</b>	<b>Heat Exchanger</b>	<b>Steam Kettle</b>
<b>Blow down Tank</b>	<b>Hot water Tank</b>	<b>Textile Cylinder Dryer</b>
<b>CO2 Tank</b>	<b>Hydraulic Accumulator</b>	<b>Vacuum Tank</b>
<b>Coil Water Heaters</b>	<b>Hydrogen Tank</b>	<b>Vulcanizer</b>
<b>Condensate Return Tank</b>	<b>Hydro-pneumatic Tank</b>	<b>Water Softener</b>
<b>Corrugator Roll</b>	<b>Isostatic Press Cylinder</b>	<b>Yankee Dryer</b>
<b>DA Tank or Deaerator Tank</b>	<b>Jacketed Reactor</b>	
	<b>Jacketed Steam Vessel</b>	
	<b>LNG Tank</b>	