

Information Bulletin No. IB05-002

February 3, 2005

## **ALERT**

### **Pressurized Truck-Mounted Vessels**

Truck-mounted water tanks pressurized by air at a pressure above 103 kPa (15 psi) are subject to the Safety Codes Act and must be constructed, operated and maintained in accordance with the associated pressure equipment regulations under the Act and the codes and standards adopted as part of the regulations. These requirements also apply to truck-mounted vessels containing air, or another expansible fluid, and to truck-mounted boilers.

It is not only illegal to use pressure equipment that does not meet the requirements of the Safety Codes Act but these vessels can **rupture causing death** or injury.

#### **Background**

A number of water tanks in use on premixed concrete delivery vehicles have failed recently. These tanks are used to supply wash water to clean the unit after delivery of the concrete mix. They are filled with water and pressurized by air to provide the energy necessary to discharge the water through a hose. A tank used in this manner is deemed to be a pressure vessel under the Safety Codes Act. This alert has been prepared specifically to address water tanks that are pressurized by air, but it may also be taken as applicable to any vessel that contains both an expansible fluid and a non-expansible fluid.

Vessels containing air or another expansible fluid at a pressure above 103 kPa (15 psi) come under the Safety Codes Act, unless otherwise exempted by that Act or covered under another Act such as the Transportation of Dangerous Goods Act.

Vessels which contain a non-expansible fluid or granular product, such as water or cement, and have an expansible fluid introduced at a pressure in excess of 103 kPa to blanket or force the non-expansible or granular product out of the vessel are to be considered as pressure vessels. Designs for these pressure vessels must comply with the CSA B51 Boiler, Pressure Vessel and Pressure Piping Code and the designs must also be registered for use in Alberta. In accordance with the CSA B51 Code, these pressure vessels must be fabricated in an authorized shop and must be inspected by an Authorized Inspector. As well, the fabrication must be documented on a duly signed Manufacturer's Data Report.

These vessels may also require further regular inspections by an ABSA Safety Codes Officer. Under the Safety Codes Act, the owner is responsible for ensuring that vessels are protected by a safety device that does not allow the overpressuring of the vessel. The owner is also responsible for the safe operation. Repairs and alterations must be reviewed and accepted by an ABSA Safety Codes Officer and can only be performed by a company that is authorized by ABSA for conducting such work.

The Safety Codes Act provides exemptions for pressure vessels that are mounted on motor vehicles/transport trucks and which form part of the transport tractor or are registered under Transport Canada as a transport vessel for the conveyance of dangerous goods. These exemptions do not apply to truck-mounted boilers, such as commonly used for portable steaming operations, or to air receivers such as commonly used on mobile tire servicing units.

If you have a vessel that meets the above description and are uncertain whether the vessel is in compliance with regulatory requirements, contact your local ABSA Safety Codes Officer. For ABSA office addresses and contact information, please visit ABSA website [www.absa.ca](http://www.absa.ca).

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