



**Technical Standards &
Safety Authority**
4TH Floor, West Tower
3300 Bloor Street West
Toronto, Ontario
Canada M8X 2X4

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Boilers & Pressure Vessels Safety Division
SAFETY ADVISORY
Flexible Hose Assemblies (Brantford Plant Fatality)

The Boilers and Pressure Vessels Safety Division of the Technical Standards and Safety Authority (TSSA), is investigating the failure of a rubber hose assembly at a Brantford, Ontario manufacturing plant. The failure of this assembly resulted in the death of a worker. The accident occurred when a section of compressed air piping became detached and an unrestrained section of pipe whipped and struck the worker. The section of piping was attached by means of a rubber hose and clamp to a pressure vessel.

TSSA cautions all users of flexible hose assemblies in pressurized piping systems to follow requirements for proper use and installation to prevent potential property damage, serious injury or death. Flexible hose assemblies are commonly used in industrial applications in compressed air and other pressurized piping systems.

Outlined below are the requirements of Ontario's *Boilers & Pressure Vessels Act* that must be followed by owners of piping systems which utilize flexible hose assemblies:

- 1) **The piping design shall consider all the requirements of the piping code of construction including requirements for supports, anchors and guides of the piping system.**
- 2) **The hose assembly design including the hose and connectors (clamps etc.) must be registered, prior to installation, for its intended service conditions with TSSA. The Canadian Registration Number (CRN) is evidence of this registration. Pre-fabricated hose assemblies shall be registered with TSSA as a fitting by the manufacturer. Alternatively, hoses assembled at the installation site shall be registered as part of the piping system registration.**
- 3) **The local TSSA Inspector shall be notified prior to the commencement of the installation of a new or modified piping system.**
- 4) **The owner of a piping system shall ensure proper installation, operation and maintenance of flexible hose assemblies in accordance with the recommendations of the manufacturer of the hose assembly or the manufacturers of the individual components.**
- 5) **Hose assemblies shall be marked with the CRN.**

TSSA is an independent, non-government, not-for-profit organization which is responsible for regulating boilers, pressure vessels, pressure piping and fittings manufactured and used in Ontario under the *Boilers & Pressure Vessels Act*. The Safety Authority delivers public safety programs and services under specific terms of an administrative agreement with the Ontario Ministry of Consumer and Commercial Relations.

If further information is required regarding this safety advisory, please contact **TSSA's Boilers & Pressure Vessels Safety Division at (416) 325-0606**.