July 8, 2019

Attn: Special Effects Technicians in the Province of British Columbia

Creative BC and Technical Safety BC, along with industry stakeholders, have formed a working group to address some compliance gaps related to equipment that is subject to the requirements of the *Safety Standards Act (SSA)* , the Safety Standards General Regulation (SSGR), the Gas Safety Regulation (GSR) and the Power Engineers, Boiler, Pressure Vessel & Refrigeration Safety Regulation (PEBPVRSR). Currently, there are some items that can be addressed by industry immediately that can help mitigate concerns and lower safety risks considerably.

Technical Safety BC is an independent, self-funded organization that oversees the safe installation and operation of technical systems and equipment across the province. In addition to issuing permits, licences and certificates, they work with industry to reduce safety risks through assessment, education and outreach, enforcement, and research.

Creative BC is a not for profit society created and supported by the Province of British Columbia to sustain and help grow B.C.'s creative industries. The organization acts as an industry catalyst and ambassador to help B.C.'s motion picture industry reach its economic and creative potential.

The collaborative work completed to date has been very successful and is moving in a positive direction. We are committed as a group to continue to work together to streamline processes and find ways to maintain current practices while implementing systems that will ultimately contribute to a safer and more successful industry. The table below breaks down some of the immediate concerns identified by TSBC and the regulatory requirement that it relates to; as well as the industry action items to address these gaps in compliance.

Regulatory requirement	Regulatory non-compliance details	Proposed Industry Action Items
CSA B51 s.12.1.1 - Safe operation of pressure equipment requires that all pressure-retaining systems and components be protected from over pressurization by (a) pressure relief devices; or (b) other means acceptable to the authority having jurisdiction.	Modifications of propane accumulators where the maximum allowable pressure becomes unknown and accumulators being operated without over-pressure protection devices to limit internal pressure within the safe limits.	Propane containers of any type (including tanks, cylinders and / or accumulators) shall not be pressurized unless an approved pressure relief device set at or below the maximum allowable working pressure of the propane container is installed to provide over-pressure protection.
PEBPVRSR s.87 (1) - A person must not perform an alteration to pressure vessel unless that person has registered the alteration with a provincial safety manager	Propane accumulators are currently being pressurized with propane above 15 psig for special effects on movie sets and possibly at public events such as concerts.	Purpose built pressure vessels are in process of being designed and registered in accordance with CSA B51 with a max allowable working pressure of not less than 250 psig. These new pressure

CSA B51 s.4.1 - registration of designs	For example, a propane accumulator originally manufactured as a TC / DOT specification 4BW240 welded cylinder that is physically modified will no longer comply with the standard that the cylinder was manufactured to and the maximum allowable working pressure cannot be determined.	vessels will also be designed to accommodate the required fittings and appurtenances. A propane container that does not have the original design or altered design registered with Technical Safety BC shall not be pressurized. Propane containers that have been altered or modified from their original design shall be removed from service.
CSA B149.2 s.5.2.1 - Propane shall only be transferred from one *container* to another by a person who is the holder of a certificate recognized by the *authority having jurisdiction*.	The transfer of propane from one container to another has been taking place without individuals having the required training or qualifications in place.	Certificates can be immediately acquired through the following providers: Propane Training Institute (PTI) Division of the Canadian Propane Association, Fuels Learning Centre (FLC) or Team Works Solutions (TWS) A specialized training course that pertains to the special effects industry is being developed regarding propane transfer and purging procedures. Please feel free to contact your union affiliate for more information.
CSA B149.2 s.6.4.1 - New and reconditioned propane *cylinders* and propane *cylinders* that have had their interiors exposed to the atmosphere, such as would occur during a service *valve* change, shall be *purged* of air and moisture.	Although this code section identifies this requirement for cylinders, information was provided that accumulators (which in some case were modified cylinders) can be filled with: air, nitrogen or propane at any given time dependent upon the desired effect. Purging procedures must be in place to assure that the accumulator will not be susceptible to having a combustible mix within prior to operation.	A standard purging process to prevent combustible mixes should be adopted immediately. Training can be acquired through the following providers: Propane Training Institute (PTI) Division of the Canadian Propane Association, Fuels Learning Centre (FLC) or Team Works Solutions (TWS) A specialized training course that pertains to the special effects industry is being developed regarding propane transfer and purging procedures. Please feel free to contact your union affiliate for more information

Definitions

Definition of “regulated work” is specified in the: *Safety Standards Act* (SSA)

Regulated work as defined in the SSA means:
a) the assembly, manufacture, construction, installation, operation, testing, maintenance or repair of a regulated product, and
b) the alteration of a regulated product

Definition of “gas” and information related to regulated gas equipment and systems are specified in the: Gas Safety Regulation (GSR).

Gas is defined in the GSR as any of the following:

a) natural gas, manufactured gas, liquefied petroleum gas (propane), digester gas, landfill gas, biogas, or a mixture or dilution of any of them, and b) hydrogen.

Definition of “pressure vessel” and information related to regulated boiler, pressure vessel and refrigeration equipment or systems are specified in the: Power Engineers, Boiler, Pressure Vessel & Refrigeration Safety Regulation (PEBPVRSR).

For the purposes of the Safety Standards Act, a pressure vessel is defined in the PEBPVSRS as:

a) a vessel and its fittings, other than a boiler, that is capable of being used to contain, store, distribute, transfer, distil, process or otherwise handle gas, vapour or liquids under pressure;

Other Definitions

Container - (with respect to propane storage) — either an aerosol container, a cylinder, or a tank
CSA B149.2 means Propane Storage and Handling Code
CSA B51 means Boiler, Pressure Vessel and Pressure Piping Code
Cylinder - a container designed and manufactured in accordance with a cylinder specification authorized for the containment and transportation of propane under the Transportation of Dangerous Goods (TDG) Regulations of Transport Canada
Tank (with respect to propane storage) - the class of container for the storage of propane, designed and fabricated in accordance with CSA B51

As always, we welcome comments, questions and concerns from industry in order to continue to improve these processes and determine the best path forward.

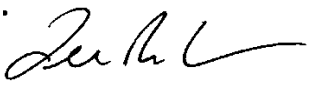
Enquiries related to: CSA B149.2 s.5.2.1 requirements may be forwarded to: GasSupport@technicalsafetybc.ca

Enquiries related to pressure vessels may be forwarded to: Tony Scholl, Technical Leader Boilers and Pressure Vessels at Tony.Scholl@technicalsafetybc.ca or Rajesh Kamboj, Senior Safety Officer Boilers and Pressure Vessels at Rajesh.Kamboj@technicalsafetybc.ca

General Questions or concerns about the working group can be addressed to: Katharine Pavoni, Industry and Community Affairs Specialist at the provincial film commission at CrBC kpavoni@creativebc.com

Thank you in advance for your commitment to keeping industry and the general public safe.

Signed,



Janice Lee

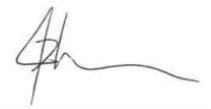
Technical Safety BC, Director, Technical Programs

Marnie Orr

Creative BC, A/Film Commissioner & Manager of Production Services

Phil Klapwyk

IATSE 891, Business Representative



Jeff Holloway

ACFC West, Chief Steward