

Information Bulletin IB18-017

August 10, 2018

INTERPRETATION
Design Registration and Inspection of Compressed Natural Gas and Hydrogen
Refuelling Station Pressure Piping Systems

Introduction

The Pressure Equipment Safety Regulation (PESR) Section 6(a)(iii) declares CSA B51-14 Part 3, *compressed natural gas and hydrogen refuelling station pressure piping systems and ground storage vessels* to be in force. CSA B51 Part 3 Clause 4.3 mandates that Compressed Natural Gas (CNG) and hydrogen refuelling station pressure piping systems be registered with the regulatory authority in the province of installation.

Subsection 14(6)(a) of the *Pressure Equipment Safety Regulation (AR 49/2006)* exempts pressure piping systems from design registration if the aggregate internal volume does not exceed 500 litres. This exemption is applicable to pressure piping systems at CNG and hydrogen refuelling stations.

Design registration is mandatory for pressure piping systems exceeding 500 litres in volume at CNG and hydrogen refuelling stations.

Interpretation

Refuelling stations within the scope of CSA B51 Part 3 shall be inspected by an ABSA safety codes officer (SCO) during construction and installation to ensure the fittings, pressure piping systems and pressure vessels comply with the PESR.

While design registration is not mandatory for a piping system not exceeding 500 litres, given the nature of the hazards associated with CNG and hydrogen service, the design of the system is deemed to be complex in context of PESR Section 9 and therefore the design shall be reviewed and stamped by a professional engineer. The inspecting SCO shall confirm the involvement of the professional engineer during the construction and installation inspection.

Pursuant to Section 32 of the Pressure Equipment Safety Regulation, ABSA form AB-273 *Design, Construction and Inspection of Compressed Natural Gas and Hydrogen Refuelling Station Report* shall be used to document completion of construction of pressure piping systems as CNG and Hydrogen refuelling stations.

<original signed by>

Mike Poehlmann, P.L. (Eng.)
Administrator, Province of Alberta Pressure Equipment Safety
Chief Inspector, ABSA the pressure equipment safety authority

TYPE: INTERPRETATION	DESCRIPTION: CNG and HYDROGEN REFUELLING STATION PIPING	REGULATION: PESR
----------------------	---	------------------