



TO: CNG Vehicle Owners, Inspectors, Technicians, and Fuel System Providers

FROM: The CNG Fuel System Inspection Working Group of NGVAmerica’s Technology & Development Committee

DATE: February 28, 2023

SUBJECT: NGV Safety Bulletin – CNG Cylinder Pressure Indication Code Requirement

This notice serves to inform owners, inspectors, technicians, and fuel system providers of vehicles powered by compressed natural gas (CNG) of the requirement in NFPA 52: Vehicular Natural Gas Fuel Systems Code for a visual indication of the pressure inside any CNG fuel storage container onboard a vehicle or a method to determine if the container(s) are pressurized. Vehicles equipped with CNG fuel containers should be configured with components that allow technicians to determine if there is pressure inside the container prior to performing fuel system service or repair. The requirement first appeared in the 2016 edition of NFPA 52 and exists in all subsequent versions as well. The specific verbiage taken from Chapter 16: “Automotive Fuel System and Safety Systems (Onboard),” is as follows:

*When shut-off valves are attached directly to fuel containers, there shall be a means for the technician to determine if there is still pressure in the container, regardless of the valve position.<sup>1</sup>*

This code requirement exists to provide NGV technicians with definitive evidence that the pressure inside a CNG fuel container is at an allowable level for service or repair and exists to support important safety procedures during and after defueling. Methods to measure and indicate pressure in a fuel container include pressure gauges and transducers that are installed permanently as part of the fuel system installation configuration and other OEM-specific procedures. NGV technicians should always refer to OEM operation and maintenance documentation or contact the OEM for the proper safety procedures before starting any service or repair on a NGV fuel system.

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<sup>1</sup> NFPA 52: Vehicular Natural Gas Fuel Systems Code, 2023 edition (ref. section 16.3.3.6.1.3)

Vehicle/equipment manufacturers and fuel system providers should be aware that the edition of NFPA 52 in effect at the time of final vehicle assembly shall apply as the relevant code for the vehicle. The authority having jurisdiction (AHJ) can provide guidance for the edition of NFPA 52 that determines the local code requirements, but for matters involving technician safety it is best to adhere to requirements identified in the latest edition of the code.

NGVAmerica recommends that all NGV technicians become familiar with the specific procedure to determine if pressure remains in every vehicle's CNG fuel containers. NGV inspectors should also confirm the pressure indication capability during a vehicle's Pre-Service Visual Inspection, the General Visual Inspection, or the Detailed Visual Inspection. For more information on inspecting CNG fuel systems, refer to [NGVAmerica's CNG Vehicle Fuel System Inspection Guidance](#).

If a vehicle inspection at any level identifies potential deficiencies within the NGV fuel system based on applicable codes, standards, or regulations, it is important for the vehicle owner or operator to consult with the OEM and/or fuel system provider for resolution. NGV technicians should never attempt to modify a vehicle's fuel system without OEM or fuel system provider guidance.

To learn more about the Technology & Development Committee, contact NGVAmerica's Director of Technology and Sustainability, Paul Sandsted, at [psandsted@ngvamerica.org](mailto:psandsted@ngvamerica.org).

To learn more about NGV inspector training and certification programs offered by NGVi, go to [www.ngvi.com](http://www.ngvi.com) or contact the leader of NGVAmerica's CNG Fuel System Inspection Working Group, Leo Thomason, at [leo@ngvi.com](mailto:leo@ngvi.com).

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