



TO: Owners and Operators of Vehicles and Equipment Powered by CNG

FROM: The Gas Quality Working Group of NGVAmerica's Technology & Development Committee

DATE: July 6, 2022

SUBJECT: Well gas safety bulletin

This notice serves to inform owners and operators of vehicles and equipment powered by compressed natural gas (CNG) of the importance of only refueling with pipeline quality natural gas. Unprocessed natural gas captured directly or indirectly from a well or an unprocessed renewable source should not be used to refuel vehicles or equipment as it may contain unacceptable levels of contaminants that will affect engine performance, reliability, and emissions as well as fuel system durability.

In addition to engine and fuel system consequences, fueling with natural gas that is not pipeline quality may also result in unsafe conditions if it does not contain the required amount of mercaptan. The rotten egg smell commonly associated with natural gas only exists with pipeline quality natural gas after mercaptan is added by the local distribution company. Without it, the presence of natural gas cannot be detected by the human nose, which can be dangerous if a leak were to occur.

For more information on gas quality and acceptable levels of fueling constituents that are acceptable for your natural gas engine, refer to operating guidelines and requirements from the manufacturer. Industry standards ASTM D8080-21, SAE J1616, and ISO 15403 also offer additional guidance. To determine fuel composition acceptability for Cummins natural gas engines, refer to the website below as a helpful resource.

<https://www.cummins.com/engines/natural-gas/fuel-quality-calculator>

To learn more about the Gas Quality Working Group or the Technology & Development Committee, contact NGVAmerica's Director of Technology and Sustainability, Paul Sandsted, at psandsted@ngvamerica.org.