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NFPA® 52 Vehicular Gaseous Fuel Systems Code Handbook 2013

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NFPA® 52

Vehicular Gaseous Fuel Systems Code

2013 Edition

This edition of NFPA 52, *Vehicular Gaseous Fuel Systems Code*, was prepared by the Technical Committee on Vehicular Alternative Fuel Systems. It was issued by the Standards Council on November 27, 2012, with an effective date of December 17, 2012, and supersedes all previous editions.

This edition of NFPA 52 was approved as an American National Standard on December 17, 2012.

Origin and Development of NFPA 52

While compressed natural gas (CNG) vehicles have been used extensively in other countries since the late 1940s, it was not until the late 1970s that their use in the United States became extensive enough to warrant preparation of a national standard.

Between 1980 and 1982, a committee of the American Gas Association (AGA) developed a draft of a fire safety standard for vehicular fuel systems. This was based on existing worldwide standards and current U.S. practice.

In late 1981, the AGA petitioned the NFPA to establish a technical committee project on the subject. The normal NFPA solicitation of comments revealed sufficient response from various interested parties, and the Committee on Compressed Natural Gas Vehicular Fuel Systems was established by the Standards Council in July 1982.

The first edition of NFPA 52 was issued in 1984, and it was revised in 1988, 1992, 1995, and 1998.

The 2002 edition of NFPA 52 contained minor revisions, most of these in the chapter on engine fuel systems. There also were some changes made to comply with the *Manual of Style for NFPA Technical Committee Documents*. The most significant of these were reordering of chapters and numbering of definitions.

The 2006 edition of NFPA 52 was a complete revision. NFPA 57, *LNG Vehicular Fuel Systems Code*, was incorporated into NFPA 52. Additionally, the scope of the committee was expanded to include hydrogen, and new chapters were added that addressed general gaseous hydrogen requirements and equipment qualifications; service and maintenance of gaseous hydrogen engine fuel systems; gaseous hydrogen compression, gas processing, storage, and dispensing systems; and liquefied hydrogen fueling facilities.

The 2010 edition of NFPA 52 revised the committee scope so that it better coordinated with the responsibilities of NFPA 55, *Compressed Gases and Cryogenic Fluids Code*, with regard to hydrogen storage systems. A large number of changes were also made to the chapters concerning hydrogen, to update to current material in NFPA documents, the *Manual of Style for NFPA Technical Committee Documents*, and acceptable performance criteria.

Paragraphs extracted from NFPA 55 were shown with the extract reference in brackets [ ] at the end of the paragraph. In some cases, modifications were made to the extracted text to use terminology appropriate for this standard, such as the term *cryogenic fluid* instead of *compressed gas*. In those instances, brackets encase the modified terms.

The 2013 edition removes the requirements for hydrogen systems, the responsibility for which has been transferred to NFPA 2, *Hydrogen Technologies Code*. A chapter on general fueling requirements has been added, and changes have been made to the onboard gas detection requirements for LNG-fueled vehicles. The installation requirements for ASME Tanks for LNG have been updated to coordinate with NFPA 59A, *Standard for the Production, Storage, and Handling of Liquefied Natural Gas (LNG)*.

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The Committee shall coordinate its documents with the Committee on the National Fuel Gas Code with respect to natural gas piping within the scope of that Committee; with the Committees on Industrial Trucks, Fire Safety for Recreational Vehicles, and Marine Fire Protection with respect to engine fuel systems and refueling stations within their scopes; and the Liquefied Natural Gas Committee with respect to storage of LNG within its scope.

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