

Handbook 44

Amend NIST Handbook 44 Appendix D to include new definitions as follows:

diesel gallon equivalent (DGE). – Diesel gallon equivalent (DGE) means 6.384 pounds of compressed natural gas or 6.059 pounds of liquefied natural gas. [3.37]
(Added 2014)

Amend NIST Handbook 44 Appendix D definitions as follows:

gasoline gallon equivalent (GGE). – Gasoline gallon equivalent (GGE) means 5.660 pounds of compressed natural gas. [3.37]
(Added 1994) (Amended 2014)

Amend NIST Handbook 44 Mass Flow Meters Code paragraphs S.1.2., S.1.3.1.1., S.5.2., and UR.3.8. and add new paragraphs S.1.3.1.2., S.5.3., UR.3.1.1. and UR.3.1.2. as follows:

S.1.2. Compressed Natural Gas and Liquefied Natural Gas Dispensers. – Except for fleet sales and other price contract sales, a compressed or liquefied natural gas dispenser used to refuel vehicles shall be of the computing type and shall indicate the quantity, the unit price, and the total price of each delivery. The dispenser shall display the mass measured for each transaction either continuously on an external or internal display accessible during the inspection and test of the dispenser, or display the quantity in mass units by using controls on the device.

(Added 1994) (Amended 2014)

S.1.3. Units.

S.1.3.1.1. Compressed Natural Gas Used as an Engine Fuel. – When compressed natural gas is dispensed as an engine fuel, the delivered quantity shall be indicated in ~~“gasoline liter equivalent (GLE) units” or “gasoline gallon equivalent (GGE) units.”~~ or diesel gallon equivalent units (DGE), or in mass if required by the weights and measures authority having jurisdiction (Also see definitions.)

(Added 1994) (Amended 2014)

S.1.3.1.2. Liquefied Natural Gas Used as an Engine Fuel. – When liquefied natural gas is dispensed as an engine fuel, the delivered quantity shall be indicated in diesel gallon equivalent units (DGE), or in mass if required by the weights and measures authority having jurisdiction (Also see definitions.)

(Added 2014)

S.5.2. Marking of ~~Gasoline Volume~~ Equivalent Conversion Factors for Compressed Natural Gas. – A device dispensing compressed natural gas shall have either the statement ~~“1 Gasoline Liter Equivalent (GLE) is Equal to 0.678 kg of Natural Gas” or “1 Gasoline Gallon Equivalent (GGE) is Equal to means~~ 5.660 lb of Compressed Natural Gas” or “1 Diesel Gallon Equivalent (DGE) means 6.384 lb of Compressed Natural Gas” permanently and conspicuously marked on the face of the dispenser according to the method of sale used.

(Added 1994) (Amended 2014)

S.5.3. Marking of Equivalent Conversion Factors for Liquefied Natural Gas. – A device dispensing liquefied natural gas shall have the statement “1 Diesel Gallon Equivalent (DGE) means 6.059 lb of Liquefied Natural Gas” permanently and conspicuously marked on the face of the dispenser according to the method of sale used.

(Amended 2014)

UR.3.1.1. Marking of Equivalent Conversion Factors for Compressed Natural Gas. – A device dispensing compressed natural gas shall have either the statement “1 Gasoline Gallon Equivalent (GGE) means 5.660 lb of Compressed Natural Gas” or “1 Diesel Gallon Equivalent (DGE) means 6.384 lb of Compressed Natural Gas” permanently and conspicuously marked on the face of the dispenser according to the method of sale used.

(Added 2014)

UR.3.1.2. Marking of Equivalent Conversion Factors for Liquefied Natural Gas. – A device dispensing liquefied natural gas shall have the statement “1 Diesel Gallon Equivalent (DGE) means 6.059 lb of Liquefied Natural Gas” permanently and conspicuously marked on the face of the dispenser according to the method of sale used.

(Amended 2014)

UR.3.8. Return of Product to Storage, Retail Compressed and Liquefied Natural Gas Dispensers. – Provisions at the site shall be made for returning product to storage or disposing of the product in a safe and timely manner during or following testing operations. Such provisions may include return lines, or cylinders adequate in size and number to permit this procedure.

(Added 1998)

Handbook 130

Amend NIST Handbook 130, Uniform Engine Fuels and Automotive Lubricants Regulation as follows:

1.XX. Diesel Gallon Equivalent (DGE). – Diesel Gallon Equivalent (DGE) means 6.384 pounds of compressed natural gas or 6.059 pounds of liquefied natural gas.

1.25. Gasoline Gallon Equivalent (GGE). – Gasoline Gallon Equivalent (GGE) means to 2.567 kg (5.660 lb) of compressed natural gas.

~~**1.26. Gasoline Liter Equivalent (GLE).**~~ – Equivalent to 0.678 kg (1.495 lb) of natural gas.

1.35. Liquefied Natural Gas (LNG). – Natural gas that has been liquefied at – ~~126.1~~ 162°C (– ~~259~~ 260 °F) and stored in insulated cryogenic tanks for use as an engine fuel.

3.11. Compressed Natural Gas (CNG).

3.11.1. How Compressed Natural Gas is to be Identified. – For the purposes of this regulation, compressed natural gas shall be identified by the term “Compressed Natural Gas” or “CNG.”

3.11.2. Retail Sales of Compressed Natural Gas Sold as a Vehicle Fuel.

3.11.2.1. Method of Retail Sale. – All CNG kept, offered, or exposed for sale or sold at retail as a vehicle fuel shall be either in terms of the gasoline ~~liter equivalent (GLE) or gasoline~~ gallon equivalent (GGE), the diesel gallon equivalent (DGE), or in mass if required by the weights and measures authority having jurisdiction.

3.11.2.2. Retail Dispenser Labeling.

3.11.2.2.1. Identification of Product. – Each retail dispenser of CNG shall be labeled as “Compressed Natural Gas.”

3.11.2.2.2. Conversion Factor. – All retail CNG dispensers shall be labeled with the conversion factor in terms of ~~kilograms or~~ pounds. The label shall be permanently and conspicuously displayed on the face of the dispenser and shall have either the statement “~~1 Gasoline Liter Equivalent (GLE) is equal to 0.678 kg of Natural Gas~~” or “1 Gasoline Gallon Equivalent (GGE) ~~is equal to~~ means 5.660 lb

of Compressed Natural Gas”, or “1 Diesel Gallon Equivalent (DGE) means 6.384 lb of Compressed Natural Gas”, consistent with the method of sale used.

3.11.2.2.3. Pressure. – CNG is dispensed into vehicle fuel containers with working pressures of ~~+6 574 kPa,~~ 20 684 kPa (3,000 psig), or 24 821 kPa (3,600 psig). The dispenser shall be labeled ~~+6 574 kPa,~~ 20 684 kPa (3,000 psig), or 24 821 kPa (3,600 psig) corresponding to the pressure of the CNG dispensed by each fueling hose.

3.11.2.2.4. NFPA Labeling. – NFPA Labeling requirements also apply. (Refer to NFPA 52.)

3.11.3. Nozzle Requirements for CNG. – CNG fueling nozzles shall comply with ANSI/AGA/CGA NGV 1.

3.12. Liquefied Natural Gas (LNG).

3.12.1. How Liquefied Natural Gas is to be Identified. – For the purposes of this regulation, liquefied natural gas shall be identified by the term “Liquefied Natural Gas” or “LNG.”

3.12.2. Retail Sales of Liquefied Natural Gas Sold as a Vehicle Fuel.

3.12.2.1. Method of Retail Sale. – All LNG kept, offered, or exposed for sale or sold at retail as a vehicle fuel shall be in terms of the diesel gallon equivalent (DGE), or in mass if required by the weights and measures authority having jurisdiction.

3.12.23. Labeling of Retail Dispensers of Liquefied Natural Gas Sold as a Vehicle Fuel Labelling.

3.12.23.1. Identification of Product. – Each retail dispenser of LNG shall be labeled as “Liquefied Natural Gas.”

3.12.3.2. Conversion Factor. – All retail LNG dispensers shall be labeled with the conversion factor in terms of pounds. The label shall be permanently and conspicuously displayed on the face of the dispenser and shall have the statement “1 Diesel Gallon Equivalent (DGE) means 6.059 lb of Liquefied Natural Gas”.

3.12.23.23. Automotive Fuel Rating. – LNG automotive fuel shall be labeled with its automotive fuel rating in accordance with 16 CFR Part 306.

3.12.23.34. NFPA Labeling. – NFPA Labeling requirements also apply. (Refer to NFPA ~~57~~52.)