

REFUELING CNG VEHICLES

It is important that individuals operating a compressed natural gas (CNG) fuel dispenser know the properties of CNG and be trained on the procedures for safely filling a CNG-fueled vehicle.

Dispensing equipment may differ among CNG facilities. To ensure each CNG fueling process is performed safely, all operating instructions provided by the owner or operator of the facility must be followed.

If you have any safety questions or concerns about CNG refueling, you should contact the dispenser site manager or your supervisor. Your employer may have procedures for you to follow in addition to those listed below.

CONNECTORS: The conventional fueling connector complies with the national NGV-1 standard.

CNG REFUELING SYSTEMS: CNG vehicular fuel systems are typically designed to operate at either 3,600 psig or 3,000 psig. Most late-model vehicles have 3,600-psig fuel systems, and older models have 3,000-psig fuel systems. Each CNG fuel system is equipped with a filling receptacle on the vehicle designed to connect to a compatible fill nozzle on the transfer hose.

Fill nozzles are sized and may be color-coded by the manufacturer based on the service pressure for which they are designed. For example, one manufacturer's fill nozzle designed for a 3,600-psig system is color-coded yellow and is slightly smaller than the fill nozzle designed for a 3,000-psig system, which is color-coded blue.

The service pressure of a vehicle's CNG fuel system is provided on a durable, readily visible label at the fueling connection receptacle on the vehicle.

Before You Begin



STEP 1

Review all the instructions posted at the dispensing station. Follow the instructions while filling your vehicle. A company with an on-site CNG fueling facility may have specific personal protective equipment requirements for employees fueling CNG vehicles.

Make sure the engine and vehicle accessories are turned off and there is no ignition source within 10 feet. Ignition sources include, but are not limited to, an open flame, open light switch, all smoking materials, pilot lights, and non-explosion-proof lights.

Visually inspect the dispenser and its transfer hose to determine they are in good condition. If they are damaged, do not use them. Report the damage to the facility owner or operator.

Prepare the Connection

STEP 2



Remove the dust cap from the vehicle's fueling connection receptacle. The service pressure of the vehicle's CNG system—3,600 psi or 3,000 psi—is listed on the label next to the fueling connection receptacle.

STEP 3

Connect the Transfer Hose to the Vehicle

Follow any instructions provided by the CNG facility's owner or operator when connecting a CNG transfer hose to the fueling connection receptacle on the vehicle. The fill nozzle on the hose is typically joined to the receptacle either (1) by pushing it on until an audible click is heard, indicating that the nozzle is properly connected for safe refueling, OR (2) for lever-type nozzles, by turning the lever 180 degrees (one-half turn) clockwise to secure the connection.



Fill the Tank

STEP 4



After securing the fill nozzle to the fueling connection receptacle, follow the instructions provided by the facility owner or operator to start the transfer of fuel. For facilities with an automatic dispenser, this may require running your credit card through a card reader.

At a facility with a manually operated dispenser, you may be instructed to ask the operator to turn the dispenser on, or you may be required to follow the written instructions provided by the facility owner or operator.

When the CNG tanks on the vehicle are filled to the service pressure, the dispensing system will automatically stop the flow of gas.

STEP 5

After Filling

Follow the facility's instructions for disconnecting from the fueling connection receptacle. If using a lever-type fill nozzle, turn the lever back to its original position. Disconnect the nozzle by pulling back on the collar of the connector and hang the hose on the dispenser.

Some newer nozzles use a push-on, pull-off connector that has no lever. On these systems, disconnect the hose by pulling back on the collar of the connector and hang the hose on the dispenser. Other nozzles may have a trigger that needs to be released.

Whatever nozzle is used, a brief hissing or popping sound may be heard when the nozzle is disconnected from the fueling receptacle.



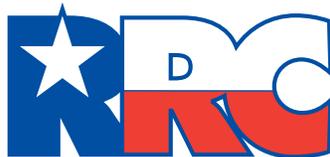


STEP 6

Replace the dust cap on the vehicle's fueling connector receptacle, to keep out dirt and moisture.

NOTE: The equipment shown in these photographs may differ from the equipment installed at your CNG refueling station. However, the same procedure still applies.

FOR MORE INFORMATION:



RAILROAD COMMISSION OF TEXAS

ALTERNATIVE ENERGY DIVISION

1701 N. CONGRESS • AUSTIN, TEXAS 78701

WWW.ALTENERGY.RRC.STATE.TX.US • (800) 64-CLEAR