

15A NCAC 02D .0926 BULK GASOLINE PLANTS

(a) For the purpose of this Rule, the following definitions apply:

- (1) "Average daily throughput" means annual throughput of gasoline divided by 312 days per year.
- (2) "Bottom filling" means the filling of a cargo tank or stationary storage tank through an opening flush with the tank bottom.
- (3) "Bulk gasoline plant" means a gasoline storage and distribution facility with an average daily throughput of less than 20,000 gallons of gasoline and that typically receives gasoline from bulk terminals by cargo tank transport, stores it in tanks, and subsequently dispenses it via account cargo tanks to farms, businesses, and service stations.
- (4) "Bulk gasoline terminal" means a gasoline storage facility that typically receives gasoline from refineries primarily by pipeline, ship, or barge; delivers gasoline to bulk gasoline plants or to commercial or retail accounts primarily by cargo tank; and has an average daily throughput of greater than or equal to 20,000 gallons of gasoline.
- (5) "Cargo tank" means the storage vessels of freight trucks or trailers used to transport gasoline from sources of supply to stationary storage tanks of bulk gasoline terminals, bulk gasoline plants, gasoline dispensing facilities, and gasoline service stations.
- (6) "Gasoline" means any petroleum distillate having a Reid Vapor Pressure (RVP) of 4.0 psi or greater.
- (7) "Incoming vapor balance system" means a combination of pipes or hoses that create a closed system between the vapor spaces of an unloading cargo tank and a receiving stationary storage tank such that vapors displaced from the receiving stationary storage tank are transferred to the cargo tank being unloaded.
- (8) "Outgoing vapor balance system" means a combination of pipes or hoses that create a closed system between the vapor spaces of an unloading stationary storage tank and a receiving cargo tank such that vapors displaced from the receiving cargo tank are transferred to the stationary storage tank being unloaded.
- (9) "Splash filling" means the filling of a cargo tank or stationary storage tank through a pipe or hose whose discharge opening is above the surface level of the liquid in the tank being filled.
- (10) "Submerged filling" means the filling of a cargo tank or stationary tank through a pipe or hose whose discharge opening is entirely submerged when the pipe normally used to withdraw liquid from the tank can no longer withdraw any liquid, or whose discharge opening is entirely submerged when the liquid level is six inches above the bottom of the tank.

(b) This Rule applies to the unloading, loading, and storage facilities of all bulk gasoline plants, and of all cargo tanks delivering or receiving gasoline at bulk gasoline plants except stationary storage tanks with capacities less than 528 gallons.

(c) The owner or operator of a bulk gasoline plant shall not transfer gasoline to a stationary storage tank unless the unloading cargo tank and the receiving stationary storage tank are equipped with an incoming vapor balance system as described in Paragraph (i) of this Rule and the receiving stationary storage tank is equipped with a fill line whose discharge opening is flush with the bottom of the tank such that bottom filling can be achieved.

(d) The owner or operator of a bulk gasoline plant with an average daily gasoline throughput of 4,000 gallons or more shall not load a cargo tank at such plant unless the unloading stationary storage tank and the receiving cargo tank are equipped with an outgoing vapor balance system as described in Paragraph (i) of this Rule and the receiving cargo tank is equipped for bottom filling.

(e) The owner or operator of a bulk gasoline plant with an average daily throughput of more than 2,500 gallons but less than 4,000 gallons located in an area with a housing density exceeding the limits in this Paragraph shall not load any cargo tank at such bulk gasoline plant unless the unloading stationary storage tank and receiving cargo tank are equipped with an outgoing vapor balance system as described in Paragraph (i) of this Rule and the receiving cargo tank is equipped for bottom filling. In the counties of Alamance, Buncombe, Cabarrus, Catawba, Cumberland, Davidson, Durham, Forsyth, Gaston, Guilford, Mecklenburg, New Hanover, Orange, Rowan, and Wake, the specified limit on housing density is 50 residences in a square one mile on a side with the square centered on the loading rack at the bulk gasoline plant and with one side oriented in a true North-South direction. In all other counties the specified limit on housing density is 100 residences per square mile. The housing density shall be determined by counting the number of residences using aerial photographs or other methods approved by the Director to provide equivalent accuracy.

(f) The owner or operator of a bulk gasoline plant not subject to the outgoing vapor balance system requirements of Paragraph (d) or (e) of this Rule shall not load cargo tanks at such plants unless:

- (1) equipment is available and used at the bulk gasoline plant to provide for submerged filling of each cargo tank; or
 - (2) each receiving cargo tank is equipped for bottom filling.
- (g) For gasoline bulk plants located in a nonattainment area for ozone, the owner or operator shall continue to comply with Paragraph (d) or (e) of this Rule even if the average daily throughput falls below the applicable threshold if ever the facility throughput triggered compliance.
- (h) The owner or operator of a bulk gasoline plant shall ensure a cargo tank that is required to be equipped with a vapor balance system pursuant to Paragraphs (c), (d), or (e) of this Rule shall not transfer gasoline between the cargo tank and the stationary storage tank unless:
 - (1) the vapor balance system is connected, operating, and working as designed in accordance with the manufacturer's specifications and the definition of "good operation and maintenance" in 15A NCAC 02D .0602;
 - (2) cargo tank hatches are closed at all times during loading and unloading operations; and
 - (3) the cargo tank's pressure/vacuum relief valves, hatch covers, and the cargo tank's and storage tank's associated vapor and liquid lines are vapor-tight, as defined in 40 CFR 60.501 and 63.11132, as applicable, during loading or unloading.
- (i) Vapor balance systems required under Paragraphs (c), (d), and (e) of this Rule shall consist of the following major components:
 - (1) a vapor space connection on the stationary storage tank equipped with fittings that are vapor tight and will be automatically and immediately closed upon disconnection to prevent release of volatile organic material;
 - (2) a connecting pipe or hose equipped with fittings that are vapor tight and will be automatically and immediately closed upon disconnection to prevent release of volatile organic material; and
 - (3) a vapor space connection on the cargo tank equipped with fittings that are vapor tight and will be automatically and immediately closed upon disconnection to prevent release of volatile organic material.
- (j) The owner or operator of a bulk gasoline plant shall paint all tanks used for gasoline storage white or silver.
- (k) The pressure relief valves on cargo tanks loading or unloading at bulk gasoline plants shall be set to release at the highest possible pressure in accordance with State or local fire codes or the National Fire Prevention Association Guidelines. The pressure relief valves on stationary storage tanks shall be set at 0.5 psi for storage tanks placed in service on or after November 1, 1992, and 0.25 psi for storage tanks existing before November 1, 1992.
- (l) No owner or operator of a bulk gasoline plant may permit gasoline to be spilled, discarded in sewers, stored in open containers, or handled in any other manner that would result in evaporation.
- (m) The owner or operator of a bulk gasoline plant shall observe loading and unloading operations and shall discontinue the transfer of gasoline:
 - (1) if any liquid leaks are observed; or
 - (2) if any vapor leaks are observed where a vapor balance system is required under Paragraphs (c), (d), or (e) of this Rule.
- (n) The owner or operator of a bulk gasoline plant shall not load, or allow to be loaded, gasoline into any cargo tank unless the cargo tank has been certified leak tight in accordance with 15A NCAC 02D .0932.

History Note: Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5);
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