

06-

DEPARTMENT OF ENVIRONMENTAL PROTECTION

096

BUREAU OF AIR QUALITY CONTROL

CHAPTER 133: PETROLEUM LIQUIDS TRANSFER VAPOR RECOVERY AT BULK GASOLINE PLANTS

SUMMARY: This regulation requires applicable bulk gasoline plants loading tank trucks or trailers to install a vapor balance system or submerged fill.

1. Applicability

A. This regulation shall be effective in all ambient air quality control regions in the State of Maine.

B. This regulation applies to all unloading, loading, and storage operations at bulk gasoline plants and to any gasoline tank truck delivering or receiving gasoline at a bulk gasoline plant.

C. Any bulk gasoline plant with a daily throughput of gasoline of less than 4000 gallons on a calendar month average is subject only to the requirements of Section 3(C)(7), 3(C)(8), and 3(C)(9) of this regulation provided that records are maintained according to the requirements in Section 5(A). For purposes of this provision, "calendar month average" is determined by dividing the total number of gallons of gasoline throughput in a calendar month by the number of calendar days in that same month.

D. Any stationary gasoline storage tank with a capacity of 550 gallons or less is subject only to the requirements of Section 3(C)(7), 3(C)(8), and 3(C)(9) of this regulation.

E. Any bulk gasoline plant that becomes or is currently subject to these provisions by exceeding the applicability threshold will remain subject to these provisions even if its throughput later falls below the applicability threshold.

2. Definitions

A. Loading rack. "Loading rack" means the loading arms, pumps, meters, shutoff valves, relief valves, and other piping and valves necessary to fill gasoline tank trucks at bulk gasoline plants.

B. Vapor balance system. "Vapor balance system" means a closed system that allows the

transfer or balancing of vapors, displaced during the loading or unloading of gasoline, from the tank being loaded to the tank being unloaded.

3. Standards

A. Each bulk gasoline plant shall be equipped with a vapor balance system between the gasoline storage vessel and the incoming gasoline tank truck designed to capture and transfer vapors displaced during filling of the gasoline storage vessel. These lines shall be equipped with fittings that are vapor tight and that automatically and immediately close upon disconnection.

B. Each bulk gasoline plant shall be equipped with a vapor balance system between the gasoline storage vessel and the outgoing gasoline tank truck designed to capture and transfer vapors displaced during the loading of the gasoline tank truck. The vapor balance system shall be designed to prevent any vapors collected at one loading rack from passing to another loading rack.

C. Each owner or operator of a bulk gasoline plant subject to this regulation shall act to ensure that the following procedures are followed during all loading, unloading, and storage operations:

1. The vapor balance system shall be connected between the tank truck and storage vessel during all gasoline transfer operations;
2. All storage vessel openings, including inspection hatches and gauging and sampling devices shall be vapor tight when not in use;
3. The gasoline tank truck compartment hatch covers shall not be opened during the gasoline transfer;
4. All vapor balance systems shall be designed and operated at all times to prevent gauge pressure in the gasoline tank truck from exceeding 18 inches of water and vacuum from exceeding 6 inches of water during product transfers;
5. No pressure vacuum relief valve in the bulk gasoline plant vapor balance system shall begin to open at a system pressure of less than 18 inches of water or at a vacuum of less than 6 inches of water;
6. No product shall be transferred into a tank truck which does not have a current certification for tank tightness pursuant to Chapter 120;
7. Filling of storage vessels shall be restricted to submerged fill;

8. Loading of outgoing gasoline tank trucks shall be limited to submerged fill; and

9. Owners or operators of bulk gasoline plants or owners or operators of tank trucks shall observe all parts of the transfer and shall discontinue transfer if any liquid leaks are observed.

D. Each calendar month, the vapor balance systems and each loading rack handling gasoline shall be inspected for liquid or vapor leaks during gasoline transfer operations. For purposes of this subsection, detection methods incorporating sight, sound, or smell are acceptable. Each leak that is detected shall be repaired within 15 calendar days after it is detected.

4. Compliance Provisions

A pressure measurement device (liquid manometer, magnehelic gauge, or equivalent instrument) capable of measuring 20 inches of water gauge pressure within +/-0.098 inches of water precision, shall be calibrated and installed on the bulk gasoline plant vapor balance system at a pressure tap, located as close as possible to the connection with the gasoline tank truck, to allow determination of compliance with Section 3(C)(4).

5. Recordkeeping

The owner or operator of a facility shall maintain the following records for at least 3 years. These records shall be available for inspection during normal business hours and copies shall be provided to the Department and/or EPA upon request.

A. All bulk gasoline plants shall maintain daily records showing the quantity of all gasoline loaded into gasoline tank trucks.

B. A record of each required monthly leak inspection shall be kept on file at the plant. Inspection records shall include, as a minimum, the following information:

1. Date of inspection;
2. Findings (may indicate no leaks discovered or location, nature, and severity of each leak);
3. Leak determination method;
4. Corrective action (date each leak repaired; reasons for any repair interval in

excess of 15 calendar days); and

5. Inspector's name and signature.

6. Compliance certification and reporting

A. The owner or operator of any facility subject to this section shall submit to the Department an initial compliance certification by July 1, 1994.

B. The owner or operator of any new facility that becomes subject to this section after July 1, 1994 shall submit to the Department an initial compliance certification immediately upon start-up of the facility.

C. The initial compliance certification required by Sections 6(A) and 6(B) shall provide as a minimum the following information:

1. Name and location of the facility;
2. Address and telephone number of the person responsible for the facility;
3. Identification of subject sources within the facility; and
4. Type or description of vapor balance system.

7. Compliance Schedule

The owner or operator of a facility subject to this regulation shall achieve final compliance with this regulation on or before May 31, 1995.

BASIS STATEMENT : Nine counties in the State of Maine exceed the national ambient air quality standard for ozone, a ground-level smog which causes health problems in humans. Ozone is formed in part by volatile organic compounds (VOC) contained in gasoline vapors that react in the presence of sunlight. The Clean Air Act Amendments of 1990 mandate the control of VOC contained in gasoline vapors that are emitted during the transfer of gasoline between gasoline storage tanks at bulk gasoline plants and delivery tank trucks.

In addition to the Basis Statement above, the Department has filed with the Secretary of State its response to comments received during the public comment period.

AUTHORITY: 38 M.R.S.A., Section 585-A

EFFECTIVE DATE: July 11, 1994