

401 KAR 59:101. New bulk gasoline plants.

RELATES TO: KRS 224.20-100, 224.20-110, 224.20-120, 42 U.S.C. 7401-7626, 7407, 7408, 7410

STATUTORY AUTHORITY: KRS 224.10-100

NECESSITY, FUNCTION, AND CONFORMITY: KRS 224.10-100 requires the Environmental and Public Protection Cabinet to prescribe administrative regulations for the prevention, abatement, and control of air pollution. 42 USC 7410 likewise requires the state to implement standards for national primary and secondary ambient air quality. This administrative regulation provides for the control of volatile organic compound emissions from new bulk gasoline plants.

Section 1. Definitions. As used in this administrative regulation, all terms not defined in this section shall have the meaning given to them in 401 KAR 59:001.

- (1) "Affected facility" means a bulk gasoline plant.
- (2) "Bulk gasoline plant" means a facility for the storage and dispensing of gasoline that employs tank trucks, trailers, railroad cars, or other mobile nonmarine vessels for both incoming and outgoing gasoline transfer operations.
- (3) "Gasoline" means a petroleum distillate having a Reid vapor pressure of four (4.0) pounds per square inch or greater used as a fuel for internal combustion engines.
- (4) "Bottom-fill system" means a system of filling transport vehicle tanks through an opening that is flush with the bottom of the transport vehicle tank.
- (5) "Vapor balance system" means a combination of pipes or hoses which create a closed system between the vapor spaces of an unloading tank and receiving tank such that vapors displaced from the receiving tank are transferred to the tank being unloaded.
- (6) "Submerged fill tube system" means a fill tube the discharge of which is entirely submerged when the liquid level is six (6) inches above the bottom of the transport vehicle tank.
- (7) "Classification date" means June 29, 1979.
- (8) "Transport vehicle" means tank trucks, trailers, or railroad tank cars.

Section 2. Applicability.

- (1) This administrative regulation shall apply to:
 - (a) Each affected facility commenced on or after the classification date defined in Section 1 of this administrative regulation and located in a county or portion of a county designated as nonattainment for ozone in 401 KAR 51:010, for any classification except marginal; and
 - (b) Each affected facility commenced on or after September 28, 1994 which is part of a major source located in a county or portion of a county designated attainment or marginal nonattainment for ozone in 401 KAR 51:010.
- (2) Each affected facility commenced on or after the classification date defined in Section 1 of this administrative regulation but prior to September 28, 1994 which is part of a major source located in a county or portion of a county designated attainment or marginally nonattainment for ozone in 401 KAR 51:010 shall be exempt from this administrative regulation except that control devices and procedures required by a previous version of this administrative regulation at the time it commenced shall continue to be operated and maintained.

Section 3. Standard for VOCs.

- (1) The owner or operator of an affected facility shall install, maintain, and operate:
 - (a) Stationary storage tank control devices according to 401 KAR 59:050 or 401 KAR 61:050.

- (b) A vapor balance system or an equivalent control approved by the cabinet and the U.S. EPA for:
 - 1. Filling of stationary storage tanks from transport vehicle tanks; and
 - 2. Filling of transport vehicle tanks from stationary storage tanks.
- (c) For loading into transport vehicle tanks either:
 - 1. A submerged fill tube system; or
 - 2. A bottom-fill system.
- (2) The vapor balance system shall be equipped with fittings which are vapor tight and automatically close upon disconnection so as to prevent the release of organic material.
- (3) The cross-sectional area of the vapor return hose shall be at least fifty (50) percent of the cross-sectional area of the liquid fill line and free of flow restrictions.
- (4) Transport vehicle tank hatches shall be closed at all times during loading operations.
- (5) There shall be no leaks from the pressure/vacuum relief valves and hatch covers of the stationary storage tanks during loading.
- (6) The pressure relief valves on storage vessels and tank trucks or trailers shall be set to release at no less than seven-tenths (0.7) psig unless a lower setting is required by applicable fire codes.
- (7) The owner or operator shall not load gasoline into a transport vehicle or receive gasoline from a transport vehicle which does not have proper fittings for connection of the vapor balance system, nor shall the owner or operator load or receive gasoline unless the vapor balance system is properly connected and in good working order. Except as provided in subsection (8) of this section the fittings on the transport vehicle tanks shall be vapor tight and automatically close upon disconnection so as to prevent the release of organic material.
- (8) The following shall apply to the loading of a transport vehicle tank by means of a submerged fill tube system:
 - (a) When inserted into the tank, the submerged fill tube system shall form a vapor tight seal with the tank.
 - (b) Tank hatches are to be opened only for the minimum time necessary to insert or remove the submerged fill tube system.
- (9) No owner or operator shall permit gasoline to be spilled, discarded in sewers, stored in open containers, or handled in a manner that would result in evaporation.
- (10) No owner or operator of a bulk gasoline plant subject to this administrative regulation and located in a county or portion of a county designated as nonattainment for ozone in 401 KAR 51:010, for any classification except marginal, shall allow loading of a tank truck unless the following provisions are met:
 - (a) The tank truck has a valid Kentucky pressure-vacuum test sticker as required by 401 KAR 63:031 attached and visibly displayed;
 - (b) The vapor balance system and associated equipment are designed and operated to prevent gauge pressure in the tank truck from exceeding 450 mm water (eighteen (18) in. water) and prevent vacuum from exceeding 150 mm water (six (6) in. water);
 - (c) A pressure tap or equivalent system as approved by the cabinet is installed on the vapor balance system so that a liquid manometer can be connected by an inspector to the tap in order to determine compliance with paragraph (b) of this subsection. The pressure tap shall be installed by the owner or operator as close as possible to the connection with the delivery tank, and shall consist of a one-quarter (1/4) inch tubing connector which is compatible with the use of three-sixteenths (3/16) inch inside diameter plastic tubing; and
 - (d) During loading there is no reading greater than or equal to 100 percent of the lower explosive limit (LEL, measured as propane) at a distance of two and five-tenths (2.5) centimeters around the perimeter of a potential leak source associated with the vapor

balance system of a bulk gasoline plant as detected by a combustible gas detector using the test procedure referenced in Section 5 of this administrative regulation.

Section 4. The owner or operator may elect to use an alternate control system if it can be demonstrated to the cabinet's satisfaction that the alternate system shall achieve equivalent control efficiency.

Section 5. Compliance. On or after December 31, 1982, the test procedure as defined in Appendix B to "Control of Volatile Organic Compound Leaks from Gasoline Tank Trucks and Vapor Collection Systems" (OAQPS 1.2-119, U.S. EPA, Office of Air Quality Planning and Standards), which has been incorporated by reference in 401 KAR 50:015, or an equivalent procedure approved by the cabinet, shall be used by the cabinet to determine compliance with the standard prescribed in Section 3(10)(d) of this administrative regulation during inspections conducted pursuant to KRS 224.10-100(10).

Section 6. Compliance Timetable.

(1) Affected facilities which were subject to this administrative regulation as in effect on August 24, 1982, shall have achieved final compliance upon startup.

(2) The owner or operator of an affected facility that, on or after September 28, 1994, becomes subject to this administrative regulation for a reason other than construction, modification, or reconstruction shall be required to complete the following:

(a) Submit a final control plan for achieving compliance with this administrative regulation no later than eight (8) months after the date the affected facility becomes subject to this administrative regulation.

(b) Award a contract for the control system no later than nine (9) months after the date the affected facility becomes subject to this administrative regulation.

(c) Initiate on-site construction or installation of emission control equipment no later than ten (10) months after the date the affected facility becomes subject to this administrative regulation.

(d) On-site construction or installation of emission control equipment shall be completed no later than eleven (11) months after the date the affected facility becomes subject to this administrative regulation.

(e) Final compliance shall be achieved no later than twelve (12) months after the date the affected facility becomes subject to this administrative regulation.

Section 7. Exemptions. An affected facility shall be exempt from this administrative regulation if the throughput is less than 4,000 gal/day. A rolling thirty (30) day average shall be allowed for determining applicability.

(5 Ky.R. 432; 6 Ky.R. 15; eff. 6-29-1979; 8 Ky.R. 1049; 9 Ky.R. 208; eff. 8-24-1982; 21 Ky.R. 90; eff. 9-28-1994; TAm eff. 8-9-2007; Crt eff. 11-21-2018; TAm eff. 2-14-2019.)