

Kansas Administrative Regulations

Kansas Department of Agriculture

Article 4.—Commercial Fertilizers

4-4-986. Liquid bulk fertilizer bladder tank requirements.

(a) Each liquid bulk fertilizer bladder tank design shall be required to be approved by the secretary before use. Each applicant shall provide the information specified in this regulation to the secretary establishing that the bladder tank design meets or exceeds the applicable requirements of K.A.R. 4-4-900 through K.A.R. 4-4-986.

(b) Each application shall be submitted on one or more forms provided by the secretary. Each applicant shall complete these forms and submit the application in compliance with the directions on the forms. The applicant shall designate all trade secrets that the applicant wishes to be considered as confidential.

(c) Each application submitted for approval shall include the plans and specifications, which shall be certified and stamped by a registered professional engineer. These plans and specifications shall include the following:

- (1) All information required by K.A.R. 4-4-985;
- (2) the results of a soil compaction study and an evaluation of these findings showing that the underlying soil and support pad can support the weight of the filled tank;
- (3) construction details of the support pad, including details of the external leak detection;
- (4) the wind loading and buoyancy calculations for the tank when empty; and
- (5) construction and assembly details of the tank and liner, which shall include the following:
 - (A) The liner manufacturer's detailed information, including liner thickness, composition, chemical compatibility, and life expectancy;
 - (B) a description of the protective barriers between the liner and the tank, including cross-sections of each wall and the floor;
 - (C) detailed information about liner suspension;

(D) detailed information about roof support;

(E) detailed information about the method to be used to remove condensate, overage, and liner leakage, if any;

(F) detailed information about all external openings through the tank, including any leak detection ports, valves, manways, and other inspection ports;

(G) detailed information about all openings through the tank liner;

(H) detailed information about the liquid-level gauging device, including overage prevention;

(I) detailed information about the internal leak detection system;

(J) the method of securing the tank and appurtenances to prevent any discharge of stored fertilizer;

(K) each manufacturer's recommendations for inspection and maintenance of the tank, liner, and appurtenances and a statement specifying how these recommendations will be implemented; and

(L) any other relevant information regarding the safe handling of bulk fertilizer required by the secretary.

(d) All external appurtenances, including leak detection ports and valves, shall meet the following requirements:

(1) Be encased or enclosed to contain any leaks;

(2) have a leak detection method; and

(3) have a method to secure the enclosure from unauthorized access.

(e) All pipes outside the tank shall be double-walled from the storage tank to the loading pad and shall have a leak detection method.

(f) All tanks and appurtenances shall be protected from damage due to vehicle traffic.

(g) Each applicant shall verify the manufacturer's certification that the external tank has been built to the applicable provisions of the American petroleum institute's API standard 650, published November 1998 and including the January 2000 addenda, November 2001 addenda, and all appendices, which is hereby adopted by reference.

(h) Upon completion of construction and before use, the owner or operator of the facility shall submit to the secretary a detailed record of construction and a statement certifying that the facility was constructed according to the approved application.

(i) Each bladder tank shall be inspected and maintained according to the approved plan.

(Authorized by K.S.A. 2-1227; implementing K.S.A. 2-1228; effective July 18, 2003.)

***** Authenticated Kansas Administrative Regulation *****