

Kansas Administrative Regulations

Kansas Department of Agriculture

Article 10.—Anhydrous Ammonia

4-10-4d. Pressure-relief valves.

(a) Each container or system of containers shall have liquid and vapor pressure-relief valves to prevent pressure build-up in any portion of the system. Each pressure-relief valve shall be manufactured for use with anhydrous ammonia and be installed, maintained, and replaced according to the manufacturer's instructions.

(b) Each vapor-relief valve shall be set to indicate discharge at a pressure of not less than 95 percent, and not more than 100 percent, of the design pressure of the container to which the vapor-relief valve is attached. Each vapor-relief valve shall be constructed to completely discharge before the pressure exceeds 120 percent of the design pressure of the container to which the vapor-relief valve is attached.

(c) Pressure-relief valves shall not exhaust within or beneath any building or other confined area.

(d) Each pressure-relief valve discharge opening shall have a suitable rain cap or other device that allows free discharge of the vapor and prevents the entrance of water.

(e) Each pressure-relief valve shall be replaced if the valve meets any of the following conditions:

- (1) Fails to meet applicable requirements;
- (2) shows evidence of damage, corrosion, or foreign matter; and
- (3) does not have functional weep holes that permit moisture to escape.

(f) The discharge from each pressure-relief valve shall be vented according to one of the following:

(1) For vapor-relief valves, upward and away from where people could be located. The discharge shall flow in an unobstructed manner into the open air from a height of at least seven feet above the working area;

(2) for liquid-relief valves, downward with the opening positioned between six and 18 inches from the ground; or

(3) in any other manner that has been approved by the secretary or an authorized representative of the secretary.

(g) (1) Vent pipes or tubing used to channel releases from pressure-relief valves shall not be restricted or smaller in size than the pressure-relief valve outlet connection.

(2) Vent pipes may be connected and channeled into a common header if the cross-sectional area of the header is at least equal to the sum of the cross-sectional areas of each of the individual vent pipes.

(3) Unless a vent is directed toward the ground and rain will not be able to enter, each pressure-relief valve discharge opening shall have a rain cap.

(4) If moisture accumulation could occur in a vent, suitable provision shall be made to drain the moisture from the vent.

(Authorized by and implementing K.S.A. 2-1212; effective March 12, 2010.)

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