



ADMINISTRATIVE RULES OF MONTANA



4.12.713 TRANSFER OF LIQUIDS

- (1) A qualified attendant shall supervise transfer liquids from the time the connections are first made until the rail car is finally disconnected or the transport truck is completely unloaded and finally disconnected. Any time a site is unattended, the tank car shall not be connected to the unloading riser. During the transfer operations of the transport, chock blocks shall be so placed as to prevent rolling of the vehicle.
- (2) Containers shall be filled or used only upon written authorization of owners.
- (3) Containers shall be gauged and charged only in the open air or in a building especially provided for that purpose.
- (4) Pumps used for transferring anhydrous ammonia shall be recommended and labelled for anhydrous ammonia service by the manufacturer:
 - (a) Liquid pumps may be piston, rotary, centrifugal or regenerative type for 250 psig working pressure.
 - (b) Positive displacement pumps shall have installed off the discharge port a constant differential relief valve discharging through a line of sufficient size to carry the full capacity of the pump at relief valve setting, which setting and installation shall be according to pump manufacturer's recommendation.
 - (c) A pressure gauge graduated from 0 to 400 psig shall be installed before the relief valve line on the discharge side of the pump.
 - (d) Centrifugal or regenerative pumps do not require a bypass valve, but the installation shall incorporate a line from the discharge side of the pump to the vapor space of the supplying tank and a shutoff valve shall be installed in this line.
- (5) Plant piping shall contain shutoff valves located as close as practical to the pump connections.
- (6) Compressors used for transferring or refrigerating anhydrous ammonia shall be recommended and labelled for anhydrous ammonia service by the manufacturer:
 - (a) Compressors may be reciprocating or rotary design for 250 psig working pressure.
 - (b) Plant piping shall contain shutoff valves located as close as practical to compressor connections.
 - (c) A relief valve large enough to discharge the full capacity of the compressor shall be connected to the discharge before any shutoff valve. The discharging pressure of this valve shall not exceed 300 psig and shall be installed so that it will be vented in a safe location if discharged.

- (d) Compressors shall have pressure gauges graduated from 0-400 psig at suction and discharge.
- (e) Adequate means, such as a drainable liquid trap, shall be provided on the compressor suction to minimize the entry of the liquid into the compressor.
- (7) Loading and unloading systems shall be protected by backflow check valves or properly sized excess flow valves to prevent the emptying of the storage container(s) in the event of severance of the hose.
- (8) Transport vehicles shall not be utilized for bulk storage of anhydrous ammonia unless incapacitated at an approved site.
- (9) Railway tank cars must be transferred at a site that has a permanent storage tank of a capacity equal to 50 percent of the railway tank car. Sites not able to meet the 50 percent transfer requirement shall apply to the department annually for a letter of authorization. The department shall, after inspecting the site and its facilities and if these are found in compliance with these rules, except for the 50 percent requirement, issue a one year permit allowing the transfer of anhydrous ammonia at such site. In the case of paragraph 11 of this section, no letter of authorization is required.
- (10) All transport or railroad loading and unloading riser liquid and vapor valves must be secured valves or a security fence with two gates on opposite sides shall be installed and kept locked during the time the plant is unattended.
- (11) The transfer of anhydrous ammonia from a tank car or transport to any other unit for the purpose of converting anhydrous ammonia to aqueous ammonia shall only be done upon a railway spur owned or leased to the operator of such facility where the railway tank car can be retained for an indefinite period and where an aqueous converter is installed at a site. The transfer must be done in one continuous operation. The requirements of ARM 4.12.706 must be met before such site and facility will be approved by the department. Approved anhydrous ammonia installations designed for converting aqueous ammonia must have sufficient permanent storage to permit continuous and uninterrupted unloading from railway tank cars or trucks.
- (12) Provision must be made to prevent bleeding of transport and rail car liquid lines or hoses into the atmosphere when disconnecting. This shall be done through the use of wet hose with a shut-off valve at each end of the hose, by bleeding into water at no greater rate than one gallon of anhydrous ammonia to ten (10) gallons of ammonia-free water to prevent discharge of fumes into the atmosphere, or with an approved recovery vapor system.
- (13) The filling of mobile containers with a capacity of 2000 gallons or less with anhydrous ammonia is permissible only at a permanent storage facility approved by the department for this purpose. Anhydrous ammonia may be transferred from a transport truck or other vehicle with a maximum capacity of 10,500 gallons into containers of 2,000 gallons capacity or less mounted on farm vehicles or containers of 3,000 gallons mounted on motor-driven applicators. This transfer operation is limited to rural areas and only on the premises of the consignee.

Authorizing statute(s): Sec. 80-10-503, MCA

Implementing statute(s): Sec. 80-10-503, MCA

History: NEW, 1986 MAR p. 1820, Eff. 10/31/86.