

**RULES  
OF  
TENNESSEE DEPARTMENT OF AGRICULTURE  
DIVISION OF MARKETS**

**CHAPTER 0080-5-7  
RULES AND REGULATIONS PERTAINING TO ANHYDROUS AMMONIA STORAGE  
AND EQUIPMENT ACT  
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**0080-5-7-.01 DEFINITIONS.**

- (1) ANHYDROUS AMMONIA (NH<sub>3</sub>): As defined in the Act.
- (2) EQUIPMENT: Any and all appurtenances used in the storage, handling, and dispensing of anhydrous ammonia.
- (3) CONTAINERS: Any vessel, tank, storage or dispensing vessel used in the storage, handling, and dispensing of anhydrous ammonia.
- (4) APPLIANCES: Any device, except a container, utilized in dispensing anhydrous ammonia.
- (5) SYSTEM: All containers for storage or handling anhydrous ammonia fertilizer with all necessary fittings, piping, appliances and other accessories.
- (6) DEALER: As defined in Chapter 198, Public Acts of 1949.
- (7) BULK STORAGE: All containers having a capacity of 1,200 water gallons or more.
- (8) BULK STORAGE ACCESSORIES: Fittings, piping, compressors, and any and all equipment used in the operation of a bulk storage plant.
- (9) ALTERATIONS: Any change in a system from the approved. (This shall not apply to valves and fittings when such is replaced by equivalent or better than that which was approved.)
- (10) PERSON: An individual, firm or corporation.

**Authority:** T.C.A. §43-1302. **Administrative History:** Original Rule certified June 5, 1974.

**0080-5-7-.02 WAVIER.** To the extent permitted by Statute, where the application of these rules and regulations would cause expense materially out of proportion to the increase of safety secured thereby, or would be unreasonable under the facts of the particular case, and safety may be secured in other ways, the Commissioner of Agriculture may, upon adequate showing by the person affected, grant exemption or modification of the rule or regulation complained of, under such requirements as will secure a reasonable condition of safety, provided such exemption or modification be not in conflict with the law.

**Authority:** T.C.A. §43-1302. **Administrative History:** Original Rule certified June 5, 1974.

**0080-5-7-.03 BASIC RULES.**

(1) REQUIREMENTS FOR CONSTRUCTION AND ORIGINAL TEST OF CONTAINERS:

- (a) Containers shall be constructed and tested in accordance with the unfired pressure vessel code of the American Society of Mechanical Engineers, except that construction under paragraphs U-70 and U-200 to U-201 inclusive is not authorized.
- (b) The designed working pressure of these vessels shall not be less than:
  - 1. 250 psi for ASME, unprotected aboveground storage container.
  - 2. 200 psi for ASME, aboveground storage container provided with a shed or sprinkler system approved by the Commissioner of Agriculture, or farm trailer containers, or tractor containers.
  - 3. 150 psi for ASME, underground storage containers.

(2) MARKING ON CONTAINERS:

- (a) Each container shall be marked as specified in the following:
  - 1. Code qualification
  - 2. Thickness of shell in inches
  - 3. Thickness of head in inches
  - 4. Overall length and outside diameter in inches
  - 5. Water gallon capacity
  - 6. Design working pressure
  - 7. Date of manufacture
  - 8. Serial number
  - 9. Name of manufacturer
- (b) The above data shall either be etched, cast or impressed on name plates which shall be irremovably attached to the vessel and located near a manhole, if any, or handhole, or in some conspicuous place. The letters and figures on the name plates shall not be less than 5/32 inches high.
- (c) Each bulk storage tank shall be marked on at least two sides with the words "Anhydrous Ammonia - DANGEROUS OR CAUTION" in white letters not less than 6 inches high on a red background or the reverse. In addition the warning sign "No smoking or Open Flame - Allowed".
- (d) All transport tanks mounted on trucks and farm trailers shall be marked on both sides and rear with words "Anhydrous Ammonia - DANGEROUS OR CAUTION". Letters are to be at least 6 inches high.
- (e) All tanks installed on farm tractors and to be transported over public highways such as in doing custom-work shall be marked on rear side with words "Anhydrous Ammonia - DANGEROUS OR CAUTION" in red letters on a white background. In instances where containers are mounted on side of tractor, the words above specified shall be printed on side of container with similar display of wording on rear of tractor.

(3) LOCATION OF CONTAINERS:

(Rule 0080-5-7-.03, continued)

- (a) Containers shall be located outside of buildings unless the building is especially constructed for this purpose. In case of bulk storage, no bulk storage tanks shall be installed in the limits of any municipality without the approval of their governing body and the Commissioner of Agriculture, and in no instance closer than 200' to any building other than that of the plant operator, or that of a building designed specifically as protection for the plant itself.

(4) CONTAINERS, VALVES AND ACCESSORIES:

- (a) All containers shall be equipped with an approved liquid level gauging device so that the maximum volume of container filled by liquid shall not exceed 85% of its water capacity. Containers of 300 water gallons or more shall be equipped also with a vapor pressure indicating gauge graduated to at least 1 1/2 times the working pressure of the container.
- (b) All valves and accessory equipment shall be constructed of steel or other material approved for use with anhydrous ammonia, and suitable for a 250 psi working pressure. It is forbidden to use copper or any of its alloys for ammonia equipment.
- (c) All connections to containers except safety relief and gauging connections shall have shut-off valves located as close to the container as possible.
- (d) Excess flow valves, where required, shall close automatically at the rated flows of vapor or liquid as specified by the manufacturer. The connections and lines, including shut-off valves shall have a greater flow capacity than the rated flow of the excess flow valve.
- (e) Openings from tank to fittings for pressure gauge connections and/or other approved gauging devices, shall be protected by a No.54 drill size opening when necessary; or excess flow valve. A hand shut-off valve, with controlling orifice not in excess of 5/16", located as close to the container as possible may be used in lieu of the above on containers of 300 gallons or less.
- (f) Openings that require excess flow valve or back pressure check valves, such valve shall be located inside the container or at a point outside where the line enters the container. If installed as in the latter case, installation shall be made in such a manner that any undue strain beyond the excess flow valve or back pressure check valve will not cause breakage between the container and such valve.
- (g) Excess flow valves may be designed with a bypass, not to exceed a No.60 Drill size opening to allow equalization of pressure.
- (h) All container valves and fittings shall conform to the following:
  - 1. The filling connection shall be fitted with an approved combination back pressure check valve and excess flow valve; one double or two single back pressure check valve; or a positive cut-off valve, in combination with either an internal back pressure valve or an internal excess flow valve.
  - 2. All vapor return valves and liquid withdrawal line, shall be equipped with approved automatic excess flow valves except that no excess flow valve is required in the withdrawal service line if the controlling orifice between the contents of the container and the outlet of the shut-off valve does not exceed 5/16" for liquid withdrawal, and the capacity of the container does not exceed 300 U.S. Gallons. All excess flow valves shall be stamped with the name or trademark of the manufacturer, lot number, and rated flow in gallons per minute.

(Rule 0080-5-7-.03, continued)

(5) PIPING, TUBING AND FITTINGS:

- (a) All fittings where subjected to tank pressure shall be extra heavy construction and only steel (no copper steel), no cast iron, bushings and plugs shall be allowed in the lines or connections.
- (b) Galvanized pipe is forbidden to be used as ammonia line pipes; black steel or iron piping of at least 800 pounds minimum test may be used provided welded pipe joints are used. Screwed and bolted flange joints are permissible with double strength pipe. Where screwed joints are used, it has been found that common dopes for pipe threads are attacked by ammonia; freshly mixed Litharge and Glycerin is recommended for use for durability.
- (c) All pipe lines shall be installed as nearly in a straight line as possible with a minimum amount of pipe, and not restricted by an excessive amount of elbows and bends. Where nipples are used, they shall be of extra heavy seamless type. Flexible connections shall not be used on permanently fixed installations; rigid connections are required.
- (d) Provisions shall be made for expansion, contraction, jarring, vibration, and for settling.
- (e) Any section of pipe between shut-off valves that may contain trapped liquid shall be protected by an ammonia relief valve.
- (f) Provisions shall be made to adequately protect all exposed piping from mechanical injury that might result from moving machinery, presence of automobiles or trucks, or where any undue strain may be placed upon the piping.
- (g) All piping and tubing shall be tested with a pressure of 90 psi after assembly and proved free from leaks. Such test shall be made and certified to by the installer before the system is put into service.
- (h) Where hose are used as flexible connections or otherwise, they shall meet the following specifications:
  - 1. Fabricated of material resistant to ammonia.
  - 2. Hose subject to container pressure shall be designed for bursting pressure of not less than five times the maximum pressure for which the container was designed. Hose connection when made shall be capable of withstanding a test pressure of twice the maximum working pressure for which the container is designed.
  - 3. Where hose is to be used for transferring liquid from one container to another, wet hose is recommended. Such hose shall be equipped with suitable shut-off valves at discharge end. Provisions shall be made to prevent excessive hydrostatic pressure in the hose.

(6) SAFETY DEVICES:

- (a) Every container shall be protected with one or more spring-loaded relief valve. Where there is more than one valve on the same container they shall discharge at the same pressure. All relief valves shall be stamped with the name or trademark of the manufacturer, valve number, setpressure at which it begins to discharge, the rating of the valve in the amount of cubic feet

(Rule 0080-5-7-.03, continued)

per minute it will pass before the pressure of the container exceeds the start to discharge pressure setting of the device plus 25%.

- (b) All relief valves shall discharge to the free air and in no case nearer than five feet to any opening into a building.
- (c) Container safety relief valves shall be set to discharge as follows with relation to the design working pressure of the container:

Minimum	Maximum
100%	125%

- (d) All containers shall be protected by relief valve or valves capable of passing the required amount of free air as determined from Table One (1) of these rules and regulations.
- (e) Safety relief valves shall have direct communication with the vapor space of the container and no shut-off valve may be installed between the valve and the container except that a shut-off valve may be used where the arrangement of this valve is such as always to afford full required capacity flow through the relief valve.
- (f) Rupture disks may be used with spring-loaded relief valves, provided:
  - 1. The valve meets the requirements of these rules and regulations.
  - 2. The disk is made of material non-corroding under exposure to ammonia and is so designed to rupture at the relief valve setting plus 10%.
  - 3. There is no chance of fragments of the disk interfering with the proper functioning of the relief valve.
  - 4. No more than 70% of the required rate of discharge is provided by these disks.
- (g) Every rupture disk shall have a specified temperature, bursting pressure, and lot number, and shall be guaranteed by its manufacturer to burst within 5% (plus or minus) of its specified bursting pressure. The bursting pressure, temperature, lot number, and discharge capacity in cubic feet per minute shall be stamped on the flange of the disk or upon a metal tag permanently attached thereto.
- (h) When two or more safety valves are placed on one connection, this connection shall have a cross-sectional area at least equal to the combined area of these safety valves.

(7) I. C. C. APPROVAL; GOVERNMENT CONTAINERS:

- (a) All containers and pertinent equipment, subject to the rules and regulations or bearing the stamp of approval of the Interstate Commerce Commission for the service for which it was designed, and all containers which are owned or in use by the government of the United States of America are exempted from these rules and regulations, except that such containers and equipment shall be subject to inspection by the Commissioner of Agriculture.

(8) ANHYDROUS AMMONIA SYSTEM TO MEET SPECIFICATIONS:

(Rule 0080-5-7-.03, continued)

- (a) All dealers operating systems on the effective date of these rules and regulations, that do not meet the requirements thereof, shall bring such up to specifications set forth herein, within six (6) months after the effective dates of rules and regulations.
- (9) APPROVAL OF SYSTEM:
- (a) No person or dealer shall fill or permit to be filled any container or system that does not have attached thereto a tag of approval (permanent or temporary), issued by the Commissioner of Agriculture.
  - (b) Systems installed prior to the effective dates of these rules and regulations shall, WITHIN SIX (6) MONTHS thereafter, obtain inspection and approval of the container and/or systems and have securely attached thereto a Metal Tag of Approval issued by the Commissioner of Agriculture.
  - (c) On a new system installed after the effective date of these rules and regulations, a temporary tag of approval may be attached by the installer, provided said installer furnishes the Commissioner of Agriculture a certificate, certifying that said system is in compliance with these rules and regulations.
  - (d) The approval of a system bearing a temporary tag of approval shall become NULL and VOID sixty (60) days after the date of issuance of said temporary tag.
  - (e) The approval of any system or container shall become NULL AND VOID upon resale, alteration, fire or mechanical injury. Such a system or container shall be reinspected by the Commissioner of Agriculture and a new tag of approval attached thereto before put into use.
- (10) INSTALLATIONS AND CONNECTION OF SYSTEMS:
- (a) After the effective date of these rules and regulations, any person who shall install, connect, alter, or extend any anhydrous ammonia system, shall within forty-eight (48) hours after the completion thereof, give notice to the Office of the Commissioner of Agriculture, in writing, which notice shall give full details with reference thereto. The placing of such in the United States mail, postage prepaid, properly addressed to the Commissioner of Agriculture, shall be sufficient notice within the meaning of this paragraph. Provided this ruling shall not apply to farm tractor dispensing equipment when such change or alteration is equivalent to or better than the original installation.
- (11) DEALERS' RESPONSIBILITY:
- (a) Equipment dealers shall be held responsible for the installation of systems they sell, alter, or connect. It shall be the responsibility of the Fertilizer Dealers to see that the systems they service meet the requirements set forth in these rules and regulations.
  - (b) The Commissioner's Tag of Approval shall NOT relieve the Dealer of the aforementioned responsibilities. A prefilling inspection of each system shall be made by the servicing personnel every time a system is to be filled, and it is the obligation of the Dealer responsible to see that such is done and report to the Commissioner anything that is not in keeping with these rules and regulations.
- (12) SALE AND/OR DISTRIBUTION OF EQUIPMENT:

(Rule 0080-5-7-.03, continued)

- (a) Any and all equipment sold or distributed to consumers or users in the State of Tennessee shall be sold or distributed through a Dealer bonded as an Anhydrous Ammonia Equipment dealer in the State of Tennessee.
- (13) INSPECTION:
- (a) Any discrepancy found by the Inspector of the Tennessee Department of Agriculture shall be corrected within a given length of time as specified by the Inspector.
- (14) FIELD WELDING APPROVAL:
- (a) Field welding, when necessary, may be done on saddle plates or other non-pressure parts by non-qualified welders. Any welding, when done on pressure parts, shall be done by a qualified welder, and will enter the category of alteration to vessel, and tank shall be reinspected and tested as was originally done to requalify it under the code under which it was built.
- (15) BLUEPRINTS AND DATA SHEETS:
- (a) Manufacturers shall forward to the Commissioner of Agriculture two copies of the blueprints of each container of a different design prior to its delivery to any person, firm or corporation in the State of Tennessee. One is to be returned to the manufacturer approved or disapproved, such as the case may be. The other copy is to be retained in the file of the Office of the Commissioner.
  - (b) Manufacturer's data report of each separate tank shall be forwarded to the Commissioner of Agriculture. It will be the dealer's responsibility to see that the manufacturer complies with this and the above ruling. The Commissioner of Agriculture shall have on hand a copy of said data sheet before any inspection is made of said system, installation or container.
  - (c) Blueprints and data sheets of containers installed prior to the effective date of these rules and regulations shall be obtained and furnished to the Commissioner of Agriculture by the owner before inspection will be made and tag of approval attached authorizing use of container.
- (16) PERMITS:
- (a) Any person, firm, corporation, or association desiring to engage in business as a dealer in anhydrous ammonia as a fertilizer, or as a dealer in equipment used in the handling of anhydrous ammonia as a fertilizer, within the State of Tennessee shall file formal application for permit on form furnished by the Commissioner of Agriculture.
  - (b) *Two types of permits:*
    - 1. Anhydrous Ammonia Fertilizer Dealer and/or Custom Dispensers who furnish the Anhydrous Ammonia.
    - 2. Anhydrous Ammonia Equipment Dealer.
  - (c) Before any permit will be issued all applicants shall comply with the following:
    - 1. Application shall have been approved by the Commissioner of Agriculture.

(Rule 0080-5-7-.03, continued)

2. Shall have on file in the Office of the Commissioner of Agriculture a Certificate of Liability Insurance as specified in Section 4 (c) of the Act or shall have filed bond in the amount of \$25,000 as set forth in Section 4 (d): this certificate shall bear the clause that in the event the insurance or bonding company intends to cancel any or all of the policies or bonds, they will notify the Office of the Commissioner ten (10) days prior to date of cancellation.
3. Shall have properly executed Guarantee Bond in amount of \$1,000.00 filed in the Office of the Commissioner of Agriculture. Section 4 (b).
4. Storage tank and location shall be approved. (Anhydrous Ammonia Fertilizer Dealer.)
5. Transportation facilities shall be approved. (Anhydrous Ammonia Fertilizer Dealer.)

**Authority:** T.C.A. §43-1302. **Administrative History:** Original Rule certified June 5, 1974.

**0080-5-7-.04 BULK STORAGE OF ANHYDROUS AMMONIA.**

- (1) Bulk storage containers and accessories shall qualify under basic rules.
- (2) Refrigerated aboveground storage:
  - (a) Aboveground storage containers with a designed pressure of less than 200 psi for ASME shall be refrigerated to maintain the pressure below the pop off pressure. Refrigeration shall be accomplished as follows:
    1. A minimum of one electric engine automatically controlled compressor and cooling coils.
    2. A minimum of one gasoline, oil, or other fuel propelled engine operated compressor and coils maintained in standby condition; provided, however, where electric current is not available there shall be a minimum of two such engines available for use.
    3. Other refrigeration units approved by the National Board of Fire Underwriters of the Commission.
- (3) Protected aboveground storage:
  - (a) Aboveground containers of less than 250 psi for ASME and not less than 200 psi for ASME, shall be provided with a shed that extends outward from and above the height of the container, at least 3', and roof shall be constructed of non-flammable, heat reflecting material. In lieu of the shed, a suitable sprinkling system may be installed.
    1. The sprinkler system may consist of 1/2" to 3/4" pipe running along the top of the container with 1/16" drill size, perforations, space 1/2" to 1" apart on either side to allow a fine stream of water to flow down the sides of the container.
- (4) No container shall have a water capacity larger than 30,000 gallons unless means are provided to refrigerate the container.
- (5) No storage container shall have a shell or head thickness less than 3/16".



(Rule 0080-5-7-.04, continued)

- (6) Underground containers:
- (a) All underground containers shall be buried a minimum of 24" below the surface of the ground. All such containers shall be coated with one coat of red lead and two heavy coats of coal tar or asphalt. Any underground container that is not buried to a depth of 24" below the ground, or any container that is "mounded" over or showing above the earth shall fall under the classification of aboveground installation and must have the necessary protective devices required for such installation.
  - (b) Containers once installed underground shall not later be reinstalled aboveground or underground, unless they successfully withstand hydrostatic pressure retests at the pressure specified for the original hydrostatic test as required by the code under which constructed, and show no evidence of serious corrosion. Where containers are reinstalled underground, the corrosion resistant coating shall be put in good condition.
- (7) Aboveground installations:
- (a) Aboveground containers shall be mounted on substantial masonry supports, or structural steel supports on substantial masonry footings. These containers must be supported through a minimum arch of 120' if masonry supports are used. 1/4" insulation shall be placed between the masonry and the tank to prevent corrosion and protect the life of the support. All such containers shall be painted with a heat reflecting paint such as white or aluminum.
- (8) Storage relief valve's vent requirement:
- (a) All storage containers shall have their relief valves vented vertically and directly upwards to a point at least 15' above the ground. Vent pipe shall not be restricted or smaller in size than the relief valve it vents. All vent pipe shall have a suitable raincap that will allow free discharge of the vapor and prevent the entrance of water, and at the bottom of each vent pipe a small hole shall be cut to allow any moisture that may collect in the vent to escape. If housed in a building or sun-shade, openings shall be provided so that full advantage of a natural ventilation may be obtained. All vent pipes shall be properly guyed.
- (9) Underground installations:
- (a) All underground storage containers having a water capacity in excess of 1,200 gallons, shall have perforated drain tile 6" in diameter under each side of the tank, running parallel to the tank leading into a main drain tile which empties into a catch basin. The catch basin shall have a power driven pump operating automatically to keep water away from the tanks. A hand operated water pump shall be maintained in standby condition. All drain tile shall be at least the depth of the bottom of the container, with the containers resting on firm earth, the tile on two inches of slag, rock, or gravel and covered to a depth of at least 12" with the same material. Where there are more than one tank in the same underground installation, the tile may be arranged to drain the entire installation and not necessarily each tank individually.
    - 1. In lieu of the drain tile requirements specified herein such underground tanks may be installed on a concrete foundation and anchored at or near both ends of the tank with a metal strap of sufficient tensile strength to keep the tank firmly attached to the foundation. The amount of concrete used in the foundation shall be such that its weight shall at all times be sufficient to prevent the tank from rising out of the ground even though the tank should be completely submerged in water.

(Rule 0080-5-7-.04, continued)

2. All dealers having underground systems installed prior to the effective dates of these rules and regulations shall furnish the Office of the Commissioner of Agriculture affidavits testifying that said installations comply with rules and regulations or are equivalent thereof.
- (10) Storage Areas:
    - (a) All areas occupied by a bulk storage installation belonging to a dealer shall be enclosed by a substantial wire fence. Fencing shall not be installed closer than 5' to any tank. All valves shall be equipped with locking devices. Said storage areas shall have warning signs cautioning against smoking, carelessness, and the presence of unauthorized personnel.
  - (11) Distances between aboveground containers of over 1,200 gallons' capacity shall be at least 5'.
  - (12) Electrical ground:
    - (a) Aboveground containers shall be grounded by an adequate and separate ground. This shall consist of a separate ground rod buried to a depth of 6' and connected to the tank by an approved type heavy cable, attached to the tank by soldering or other approved means for a good electrical bond.
  - (13) Plan for approaching storage facilities:
    - (a) In case of multiple storage facilities, a plan must be provided to easily approach all shut-off valves used for isolating various parts of the storage facilities. This is imperative, otherwise a serious leak under certain weather conditions may blanket out completely the storage area and make approach impossible.
  - (14) Accessories:
    - (a) Wherever condensers, pumps, and compressors are used, they shall be manufactured by a reputable concern and recommended by the manufacturer for use with ammonia.
  - (15) All bulk storage plants shall have on hand as a minimum, the following equipment:
    - (a) Approved type gas mask with refill charges.
    - (b) One pair of rubber gloves.
    - (c) One pair of rubber boots.
    - (d) One rubber slicker and/or rubber pants and jacket.  
  
Easily accessible shower bath and/or 50 gallon open top drum filled with water.
    - (e) One pair tight fitting ventless type goggles.
    - (f) First aid kit.
    - (g) Fire extinguisher.

**Authority:** T.C.A. §43-1302. **Administrative History:** Original Rule certified June 5, 1974.

**0080-5-7-.05 TRUCK TRAILER EQUIPMENT.**

- (1) Tanks qualify under basic rules and shall not exceed 1,200 gallons water capacity.
- (2) Tanks shall be fastened to trailers as follows:
  - (a) Tanks shall be provided with substantial cradles, welded to the tanks. The cradles shall be situated directly over front and rear axles and bolted thereto.
  - (b) On trailers of the bed type, cross members made of channel iron or equivalent thereof, shall be placed directly across the bed and bolted to the two side members of the trailer frame, and the tank cradles bolted rigidly thereto.
  - (c) Tanks in use prior to the effective date of these rules and regulations, not provided with cradles shall have welded thereto, cradles or substantial lugs which shall be bolted to the trailer frame or axle in order to prevent rotating, backward or forward motion.
  - (d) The only two wheel type trailer that will be permissible shall be the one of the heavy cane field type or equivalent thereof, and any container installed on such a trailer shall have its centroid located 6" forward from the centroid of the trailer proper. This is to allow the trailer to tilt forwards instead of backwards in the event that the connection between the trailer and the motor vehicle should break. Installation shall be the same as in paragraph (2) of this Section.
- (3) All trailers shall be firmly and securely attached to the vehicle drawing them by means of draw-bars, supplemented by safety chains.
- (4) Fittings qualified under basis rules and fittings shall be protected from mechanical injury in case of over turning by means of a metal box or cylinder with open top welded to container over the fittings or by means of rigid guards, well-braced, welded on both sides of fittings, or by means of a metal dome. The thickness of said metal box, cylinder, guard, or dome shall be at least equal to that of the container to which it is being welded, and the height at least equal to that of the fittings. If a metal dome is used the relief valve shall be properly vented through the dome.
  - (a) If liquid withdrawal line is installed at bottom of container, the connections thereto, including hose, shall not extend downward lower than the lowest horizontal edge of the trailer axle. Provisions shall be made whereby the hose shall be fastened to the trailer while in transit.
- (5) Valve requirement:
  - (a) Tanks shall have excess flow valves in liquid withdrawal line and shall have positive shut-off valve attached to the excess flow valve, and if hose is used, it shall have a relief valve direct to liquid section of hose to prevent excessive pressures.
- (6) Trailers shall be equipped with proper devices to drain off such static charges as may be generated.
- (7) Filling of container:
  - (a) To assist in filling a container, a line may be attached to the vapor return valve of the container, but it will not be permissible to "bleed" a trailer tank to the open air to assist in filling, except in field filling - 100' from public highways or adjacent properties.

**Authority:** T.C.A. §43-1302. **Administrative History:** Original Rule certified June 5, 1974.

**0080-5-7-.06 TRACTOR EQUIPMENT.**

- (1) Tanks Qualified under basic rules.
- (2) Fittings qualified under basic rules.
- (3) To assist in filling tractor tanks, it will be permissible to bleed tank to open air provided that the filling be done on the owners property more than 100' from highways or adjacent properties.

*Authority:* T.C.A. §43-1302. *Administrative History:* Original Rule certified June 5, 1974.

**0080-5-7-.07 ROAD TRANSPORT AND TRUCK EQUIPMENT.**

- (1) Every motor carrier and his or its officers, agents, employees, and representatives concerned with the transportation of anhydrous ammonia by motor vehicle shall become conversant with the following requirements and shall comply therewith:
  - (a) No motor carrier shall operate, or require or permit the operation of any vehicle engaged in the transportation of anhydrous ammonia unless compliance is made with the applicable rules and regulations prescribed by the Interstate Commerce Commission as set forth in the Motor Carrier Safety Regulations, Revised - Part 1, 2, 3, 5, 6, and 7.
  - (b) These requirements prescribed by the Interstate Commerce Commission in the Regulations for the Transportation of Explosives and Other Dangerous Articles by Land and Water in Rail Freight, Express, and Baggage Services, and by Motor Vehicles (Highway) and Water.
- (2) The transportation by railroad of anhydrous ammonia for use as fertilizer shall be in strict accordance with ICC Rules and Regulations.

*Authority:* T.C.A. §43-1302. *Administrative History:* Original Rule certified June 5, 1974.

**0080-5-7-.08 REPORTS.**

- (1) All sales of tanks, applicators, and systems by Dealers to Consumers shall be reported in writing within forty-eight (48) hours; except that in the case of sales to another Dealer, no report is necessary.
- (2) Any accident (fire, explosion, or collision) involving anhydrous ammonia or where anhydrous ammonia is installed or being carried by truck, shall be reported by telephone or telegraph to the Commissioner of Agriculture as soon as possible so that an investigation made be made by this office before the area is disturbed.

**0080-5-7-.09 APPLICATION OF RULES.** These rules and regulations do not apply to research work under the direction of Federal and/or State Research Laboratories.

*Authority:* T.C.A. §43-1302. *Administrative History:* Original Rule certified June 5, 1974.