

## **CHAPTER 4.1-37 ANHYDROUS AMMONIA FACILITIES**

### **4.1-37-01. Anhydrous ammonia safety rules.**

The agriculture commissioner shall adopt rules necessary to implement this chapter and adopt the 2014 American national standard safety requirements for the storage and handling of anhydrous ammonia. The commissioner may adopt rules that deviate from the 2014 American national standard safety requirements if certain provisions of the standard impose undue hardship or if literal adherence to the provisions fails to provide adequate safety.

### **4.1-37-02. Definitions.**

As used in this chapter, unless the context otherwise requires:

1. "Anhydrous ammonia storage facility" means a bulk anhydrous ammonia storage facility with a capacity exceeding six thousand gallons [22712.47 liters] which is owned or operated by a user or vendor of anhydrous ammonia.
2. "Mobile storage container" means a United States department of transportation class MC-331 cargo tank, or an American society of mechanical engineers code constructed and national board registered mobile storage container, approved by the United States department of transportation, used for the temporary storage of anhydrous ammonia to be downloaded into a nurse tank.

### **4.1-37-03. License required - Anhydrous ammonia facilities and mobile storage container.**

1. The owner or operator of an anhydrous ammonia storage facility or a mobile storage container shall apply to the agriculture commissioner for a license to site and operate the facility or mobile storage container. Neither an anhydrous ammonia storage facility nor mobile storage container may be operated without a license issued by the agriculture commissioner.
2. Any permanent anhydrous ammonia storage facility constructed before July 1, 1985, is exempt from the siting requirements of this chapter and may receive a license under this chapter regardless of noncompliance with the siting requirements.
3. The commissioner may deny a license for:
  - a. Failure to remit the proper fee;
  - b. Failure to comply with the siting requirements of this chapter and rules adopted under this chapter if constructed after June 30, 1985; or
  - c. The facility failing to meet the initial inspection standards required by this chapter and any rules adopted under this chapter.
4. To obtain a license, an applicant shall submit with the application drawings or photographs showing, and a signed affidavit stating, the facility or mobile downloading site has been measured and meets the siting requirements. The drawings or photographs must show the proposed location of the tank and the surroundings in all directions.
5. An applicant for a mobile storage container license also shall submit a certification from the United States department of transportation.
6. The agriculture commissioner shall provide the board of county commissioners, of the county in which the facility is located, a written notification of intent to issue a storage facility operator's license for a new proposed facility. The written notification must include copies of the submitted application materials. Upon receipt of the notification, the county has forty-five days to request an allowance for a local zoning review. If a local zoning review is requested, the agriculture commissioner shall allow the county sixty days to complete the review and give written approval. If the county fails to respond within the specified time frame the agriculture commissioner may issue a license. If the county applies additional zoning requirements, the agriculture commissioner may require compliance with local ordinance before issuing a license.

#### **4.1-37-04. State license fee.**

The agriculture commissioner shall charge a one-time twenty-five dollar fee for a private anhydrous ammonia storage facility or a mobile storage container license, and a one-time one hundred dollar fee for a retail anhydrous ammonia storage facility or a mobile storage container license. Expansion of an existing anhydrous ammonia storage facility does not require reapplication for licensing, but all siting requirements must be met. The license is valid indefinitely but may not be transferred. A new license is required when an anhydrous ammonia storage facility changes ownership. If a storage facility changes ownership, the agriculture commissioner shall provide a written notification to the county when the commissioner issues a license to the new owner.

#### **4.1-37-05. State siting requirements - Anhydrous ammonia storage facilities constructed after June 30, 1985.**

For facilities constructed after June 30, 1985:

1. Any anhydrous ammonia storage facility with a container nominal capacity of less than one hundred thousand gallons [378541.2 liters] must be located at least:
  - a. Fifty feet [15.24 meters] from the line of any adjoining property, which may be built upon, or any highway or railroad mainline.
  - b. Four hundred fifty feet [137.16 meters] from any place of public assembly or residence, other than the company's business office.
  - c. Seven hundred fifty feet [213.36 meters] from any institutional residence.
2. Any anhydrous ammonia storage facility with container nominal capacity of one hundred thousand gallons [378541.2 liters] or more must be located at least:
  - a. Fifty feet [15.24 meters] from the property line of adjoining property, which may be built upon, or any highway or railroad mainline.
  - b. Six hundred feet [182.88 meters] from any place of public assembly or residence, other than the company's business office.
  - c. One thousand feet [300.48 meters] from any institutional residence.
3. Upon relocation of any permanent storage container to an anhydrous ammonia storage facility, the container must be hydrostatically pressure tested at the maximum allowable working pressure of the vessel, wet fluorescent magnetic particle tested, also referred to as black light tested, or any other acceptable testing method as determined by the agriculture commissioner. Before the container may be put into service and before licensing may occur, proof of testing must be supplied to the board of county commissioners and the agriculture commissioner.
4. All valves and other appurtenances to any anhydrous ammonia storage facility must be protected against physical damage. All shutoff valves must be kept closed and locked when not in use and when the facility is unattended.
5. Any anhydrous ammonia storage facility relocated or constructed after August 1, 1995, may not be located within city limits, unless approved by the city.

#### **4.1-37-06. Transfer hose requirements.**

1. Any transfer hose utilized at an anhydrous ammonia storage facility:
  - a. Which is a liquid transfer hose and is not drained of liquid upon completion of transfer operations must be equipped with an approved shutoff valve at the discharge end.
  - b. Must have a hydrostatic relief valve or equivalent must be installed in each section of hose or pipe in which liquid ammonia can be isolated between shutoff valves to relieve the pressure that could develop from the trapped liquid. If an equivalent pressure relief device is used, the maximum accumulated pressure possible within the system may not exceed the limits of the system. A hydrostatic relief valve must be installed between each pair of valves in which liquid is trapped. The start-to-discharge pressure setting of the relief valve must not be less than three hundred fifty pounds per square inch [2413.18 kilopascals] gauge nor more than four hundred pounds per square inch [2757.92 kilopascals] gauge.
  - c. Must have etched, cast, or impressed on the outer coating all of the following:

- (1) The words "ANHYDROUS AMMONIA".
  - (2) The maximum working pressure of the transfer hose.
  - (3) The name of the manufacturer of the hose.
  - (4) The date of manufacture or the expiration date of the hose.
- d. Which is cut, scraped, cracked, or weathered so that the inner white cord is visible must be replaced. A transfer hose with an expiration date printed on the hose must be replaced prior to that date. Transfer hoses without an expiration date must be replaced as follows:
- (1) Rayon hoses must be replaced within two years of the date of manufacture.
  - (2) Nylon hoses must be replaced within four years of the date of manufacture.
  - (3) Steel-reinforced hoses must be replaced within six years of the date of manufacture.
2. Notwithstanding the replacement dates determined under subdivision d of subsection 1 for transfer hoses with or without an expiration date, an additional year must be allowed for replacement of transfer hoses in order to take into account delays in the original installation of transfer hoses.

#### **4.1-37-07. Pressure relief devices.**

Bulk storage containers constructed according to the American society of mechanical engineers code, and all nurse tanks, must be equipped with pressure relief valves constructed according to the American society of mechanical engineers code and capacity certified by the national board of boiler and pressure vessel inspectors. A pressure relief valve using nonmetallic seats must be replaced every five years with a new valve meeting the standards specified in this section. A pressure relief valve using metallic seats must be tested, and repaired if deemed necessary, every five years in lieu of replacement. Repairs deemed necessary must be made by the valve manufacturer or by a safety valve repair organization having a valid "VR" certificate of authorization for the repairs from the national board of boiler and pressure vessel inspectors.

#### **4.1-37-08. Inspection.**

1. The agriculture commissioner shall develop and implement an initial and periodic inspection program for anhydrous ammonia storage facilities.
2. The agriculture commissioner shall inspect each anhydrous ammonia storage facility at least once every five years and may inspect any implement of husbandry designed to apply anhydrous ammonia which is in the vicinity of an anhydrous ammonia storage facility.
3. The agriculture commissioner may inspect any anhydrous ammonia storage facility if the commissioner has reason to believe violations of safety standards exist.
4. The agriculture commissioner may revoke or suspend the license of any anhydrous ammonia storage facility for a violation of this chapter or the rules adopted under this chapter. The commissioner may order the discontinuance of use of any implement of husbandry designed to apply anhydrous ammonia which is found unsafe or hazardous.

#### **4.1-37-09. Reinstalled and secondhand anhydrous ammonia storage containers - Requirement.**

1. A person intending to store anhydrous ammonia in a reinstalled or secondhand container, including a nurse tank, shall furnish the agriculture commissioner with:
  - a. Evidence that the container is registered with the national board of boiler and pressure vessel inspectors; or
  - b. The manufacturer's data report for the container.
2. Subsection 1 is only applicable to the owner of an anhydrous ammonia storage container installed in this state before November 1, 1987, if the storage container is reinstalled at another location.

#### **4.1-37-10. Use of fees - Safety promotion - Administration - Inspections.**

All fees collected under this chapter must be used by the agriculture commissioner to promote safety in anhydrous ammonia use and storage, administer the program, and inspect facilities.

#### **4.1-37-11. Prohibitions.**

The following actions are prohibited:

1. Filling a nurse tank directly from a railcar;
2. Filling or using a nurse tank that has an outdated hose;
3. Filling or using a nurse tank that has outdated relief valves;
4. Towing more than two nurse tanks on a public road;
5. Filling department of transportation transport containers not meeting the requirements of the department of transportation;
6. Filling anhydrous ammonia storage containers not meeting the requirements of this chapter;
7. Filling a storage container or nurse tank while unattended;
8. Making repairs or additions of appurtenances directly to pressurized storage containers or nurse tanks by any individual not authorized under rules adopted by the commissioner;
9. Painting or obscuring the American society of mechanical engineers data plates on storage containers or nurse tanks;
10. Painting hydrostatic safety and safety relief valves on storage containers or nurse tanks;
11. Filling nonrefrigerated storage containers or nurse tanks beyond the filling densities permitted by the American national standards institute K61.1, section 5.9.1; and
12. Using the American society for testing and materials A-53 type f piping for anhydrous ammonia piping systems.

#### **4.1-37-12. Anhydrous ammonia - Bulk delivery.**

Upon obtaining a commercial driver's license with an endorsement for hazardous materials, an individual may transport anhydrous ammonia in a bulk delivery vehicle and fill nurse tanks with anhydrous ammonia from the bulk delivery vehicle.

#### **4.1-37-13. Hydrostatic test procedures.**

Any hydrostatic test conducted under section 4.1-37-05 must comply with the requirements of the national board inspection code (ANSI-NB 23) and be conducted in a manner approved by the agriculture commissioner.

#### **4.1-37-14. Wet fluorescent magnetic particle test procedures.**

Any wet fluorescent magnetic particle test of a pressure vessel weld conducted under section 4.1-37-05 must comply with the requirements of the society for nondestructive testing SNT-TC-1A standard and must be conducted by a person certified as a level II technician by the society.

#### **4.1-37-15. Enforcement.**

1. The agriculture commissioner shall enforce the requirements of this chapter and any rules issued under it.
2. The commissioner may bring an action to enjoin the violation or threatened violation of this chapter, or any rule issued pursuant to this chapter, in the district court of the county in which the violation occurs or may occur.
3. The agriculture commissioner may issue a cease and desist order to any person allegedly violating this chapter. If any person violates the cease and desist order, the commissioner shall file the appropriate criminal complaint.
4. The agriculture commissioner may enter upon any public or private premises at reasonable times to:

- a. Inspect any equipment subject to this chapter and the premises on which the equipment is stored or used;
  - b. Inspect or investigate complaints; or
  - c. Inspect any premises or other place where anhydrous ammonia or related devices are held for distribution, sale, or use.
5. If a civil penalty is imposed under section 4.1-37-16 by the agriculture commissioner through an administrative hearing and the civil penalty is not paid, the commissioner may initiate a civil action in any appropriate court. Additionally, the commissioner may suspend or revoke a license issued under this chapter for failure to pay a civil penalty within thirty days after a final determination is made.

**4.1-37-16. Penalty.**

1. Any person violating this chapter is guilty of a class A misdemeanor.
2. When construing and enforcing this chapter, the act, omission, or failure of any officer, agent, or other person acting for or employed by any person is deemed to be the act, omission, or failure of the person as well as that of the person employed.
3. In addition to the criminal sanctions that may be imposed, a person found guilty of violating this chapter or the rules adopted under this chapter is subject to a civil penalty not to exceed five thousand dollars for each violation. The civil penalty may be imposed by a court in a civil proceeding or by the agriculture commissioner through an administrative hearing.