

# OKLAHOMA FERTILIZER ACT AND RULES



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**OKLAHOMA DEPARTMENT OF AGRICULTURE  
CONSUMER PROTECTION SERVICES DIVISION**

**FERTILIZER ACT & RULES  
TITLE 2, OKLAHOMA STATUTES SECTIONS 8-77.1 THROUGH 8-77.18  
OKLAHOMA ADMINISTRATIVE CODE 35:30-29-21 THROUGH 35:30-29-52**

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**FERTILIZER RULES  
SUBCHAPTER 29. FERTILIZER RULES**

**PART 1. GENERAL**

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# OKLAHOMA FERTILIZER ACT

## § 2-8-77.1. Short Title – Purpose - Preemption

- A. Sections 8-77.1 through 8-77.18 of this subarticle shall be known and may be cited as the "Oklahoma Fertilizer Act".
- B. The purpose of the Oklahoma Fertilizer Act is to provide assurances to the consumer that fertilizer products are properly identified, and that the quality represented by the manufacturer is accurate as well as for regulation of the storage, use, and application of fertilizer to protect the consumer and the environment.
- C. The Legislature hereby occupies and preempts the entire field of legislation in this state touching in any way the regulation and enforcement of the registration, labeling, sale, storage, transportation, distribution, notification of use, and agricultural use of fertilizer to the complete exclusion of any order, ordinance or regulation by any municipality or other political subdivision of this state.
- D. No political subdivision shall regulate the registration, packaging, labeling, sale, storage, distribution, agricultural use or application of fertilizer. No political subdivision shall adopt or continue in effect local orders, ordinances, or regulations in this field, except for those relating to nonagricultural use or application or taxation relating to registration, packaging, labeling, sale, storage, distribution, use or application of fertilizers. Local legislation in violation of this section is void and unenforceable.

## § 2-8-77.2. Administration

The Oklahoma Fertilizer Act shall be administered by the State Board of Agriculture.

## § 2-8-77.3. Definitions

As used in the Oklahoma Fertilizer Act:

1. "**Brand**" means a term, design, or trademark used in connection with one or several grades of fertilizer;
2. "**Broker**" means a person who negotiates sales and purchases between a manufacturer, distributor, final consumer, or retailer of fertilizer;
3. "**Bulk fertilizer**" means a fertilizer distributed in a nonpackaged form;
4. "**Commercial fertilizer**" means fertilizer sold in bulk quantities or packages greater than thirty (30) pounds;

5. "**Custom blend**" means a fertilizer formulated according to specifications furnished by the final consumer;
6. "**Custom blender**" means a person who mixes or commingles fertilizer into a custom blend and who distributes the special blend. A custom blender shall not be required to register each grade of fertilizer in the following circumstances:
  - a. the custom blend is formulated according to specifications furnished by the ultimate consumer prior to mixing, and
  - b. the custom blend is prepared by a lawn care or tree service company that mixes or commingles fertilizer and who applies the special blend for the ultimate consumer;
7. "**Deficiency**" means the amount of nutrient found by analysis less than that guaranteed, which may result from a lack of nutrient ingredients or from lack of uniformity;
8. "**Distribute**" means to import, consign, manufacture, blend, offer for sale, sell, barter, commercially apply, or supply fertilizer in this state including, but not limited to, the delivery of bagged, labeled and registered fertilizer to a nonregistrant that sells the fertilizer in this state;
9. "**Distributor**" means any person who distributes fertilizer;
10. "**Fertilizer**" means any substance containing one or more recognized plant nutrients which are used for its plant nutrient content and is designed for use or claimed to have value in promoting plant growth, except unmanipulated animal and vegetable manures, marl, lime, limestone, and wood ashes;
11. "**Fertilizer dealer**" means any person operating a business that is engaged in the distribution or sale of fertilizer. The term "fertilizer dealer" shall not include an ultimate consumer who is engaged in the physical act of application of fertilizer or a retail store selling only bagged registered commercial fertilizer other than bagged ammonium nitrate;
12. "**Grade**" means the percentage of total nitrogen, available phosphate, and soluble potash stated in whole numbers. Specialty fertilizer may be guaranteed in fractional units of less than one percent of total nitrogen, available phosphate, and soluble potash. Fertilizer materials, bone meal, manures, and similar materials may be guaranteed in fractional units;

13. **"Guaranteed analysis"** means the minimum percentage of plant nutrients claimed in the following order and form:

Total Nitrogen (N)..... \_\_\_\_\_ %  
Available Phosphate (P<sub>2</sub>O<sub>5</sub>) ..... \_\_\_\_\_ %  
Soluble Potash (K<sub>2</sub>O)..... \_\_\_\_\_ %

When any plant nutrients, substances, or compounds are guaranteed, they shall be subject to inspection and analysis;

14. **"Guarantor"** means the person responsible to the State Board of Agriculture for any claims or guarantees associated with the manufacture, distribution, and use of a fertilizer;
15. **"Investigational allowance"** means an allowance for variations inherent in the taking, preparation, and analysis of an official sample of fertilizer;
16. **"Label"** means the display of all written, printed, or graphic matter, upon the immediate container, or a statement accompanying a fertilizer;
17. **"Labeling"** means all written, printed, or graphic matter, upon or accompanying any fertilizer, or advertisements, brochures, posters, or television and radio announcements used in promoting the sale of fertilizer;
18. **"Licensee"** means the person receiving a license to distribute fertilizer under the provisions of the Oklahoma Fertilizer Act;
19. **"Manipulated manures"** means substances composed primarily of animal excreta, plant remains, or mixtures of these substances which have been processed by natural or mechanical drying or composting and no other chemicals have been added;
20. **"Mixed fertilizer"** means a fertilizer containing any combination or mixture of fertilizer materials;
21. **"Official sample"** means any sample of fertilizer taken by an authorized agent of the Board;
22. **"Percent"** or **"percentage"** means the portion of each hundred units of weight;
23. **"Primary nutrient"** means total nitrogen, available phosphate, and soluble potash;
24. **"Registrant"** means the person registering fertilizer under the provisions of the Oklahoma Fertilizer Act;

25. **"Specialty fertilizer"** means fertilizer sold in packages of less than thirty (30) pounds;
26. **"Ton"** means a net weight of two thousand (2,000) pounds avoirdupois;
27. **"Ultimate Consumer"** means a person who receives fertilizer for personal use. The term "ultimate consumer" shall not include a person distributing fertilizer for profit to the general public; and
28. **"Unmanipulated manures"** means substances composed primarily of excreta, plant remains, or mixtures of these substances which have not been processed in any manner.

#### **§ 2-8-77.4. Manipulated Manures Excluded**

Any person operating a business engaged in the distribution or sale of manipulated manures shall not be subject to provisions of Sections 8-77.5 through 8-77.7 of this title if manipulated manures offered for sale, sold, or distributed do not reflect by label any warranties or guarantees of the contents of the manures other than the animal sources of the manures.

#### **§ 2-8-77.5. Fees – License - Application**

- A. The annual license fee for persons operating a business engaged in the distribution or sale of fertilizer shall be Fifty Dollars (\$50.00) and expire on a date to be determined by the State Board of Agriculture.
- B. All fertilizer dealers shall obtain a license from the Board for each business location.
- C. An application for license shall include:
  1. The name and address of licensee; and
  2. The name and address of each business location in the state. The licensee shall inform the Board in writing of additional business locations established during the period of the license.
- D. No person, whose name appears on the label, shall distribute in this state fertilizer until it is registered with the Board by such person. An application for each brand and product name of each grade of fertilizer shall be made on a form furnished by the Board. Upon the approval of an application by the Board, a copy of the registration shall be furnished to the applicant. A distributor shall not be required to register any fertilizer which is already registered under the Oklahoma Fertilizer Act by another person, provided the label does not differ in any respect.

- E. Registrations for commercial fertilizer products sold in bulk quantities or packages of greater than thirty (30) pounds shall be permanent unless cancelled by the registrant or the Board.
- F.
  - 1. Registrations for specialty fertilizer products sold in packages of less than thirty (30) pounds shall pay a one-hundred-dollar registration fee for each product.
  - 2. Specialty fertilizer product registrations shall expire on June 30 of each year.
  - 3. If the Board finds any specialty fertilizer products that have not been registered, a penalty of One Hundred Dollars (\$100.00) per product will be assessed. The penalty shall be added to the registration fee and payment shall be made within thirty (30) days after receipt of notice.
- G. A custom blender shall not be required to register each grade of fertilizer formulated according to specifications which are furnished by the final consumer prior to mixing, but shall be required to be licensed and shall be the guarantor of that custom blend.
- H. An application for registration shall include the following:
  - 1. The brand and grade;
  - 2. The guaranteed analysis;
  - 3. Name and address of the registrant;
  - 4. Net weight for packaged fertilizer; and
  - 5. Oklahoma fertilizer license number.

#### **§ 2-8-77.6. Fertilizer Container Label Information**

- A. Containers of fertilizer distributed in this state shall have placed on or affixed to the container a label setting forth in clearly legible and conspicuous form the following information:
  - 1. Net weight;
  - 2. Brand and grade;
  - 3. Guaranteed analysis; and
  - 4. Name and address of the registrant/licensee.
- B. In case of bulk shipments, this information in written or printed form shall accompany delivery.
- C. A fertilizer formulated according to specifications which are furnished by and for the final consumer prior to mixing shall be labeled to show the net weight, the guaranteed analysis, and the name and address of the distributor, registrant, or licensee.



## **§ 2-8-77.7. Inspection Fee – Semi Annual Statement – Exemptions - Penalty**

- A. Each registrant distributing fertilizer in this state shall file with the State Board of Agriculture, not later than the last day of January and July of each year, a semiannual inspection fee report setting forth, under oath, the number of tons sold or distributed during the period and pay an inspection fee of One Dollar (\$1.00) per ton of which fifty cents (\$0.50) per ton shall be forwarded directly to a special Soil Fertility Research Account in the Department of Plant and Soil Sciences of the Division of Agricultural Sciences and Natural Resources at Oklahoma State University for the purpose of conducting soil fertility research and extension involving efficient fertilizer use for agronomic crops and forages and groundwater and surface water protection from plant food nutrients. Oklahoma State University shall present an annual report to the Agriculture Committees of the Legislature on the use of the special Soil Fertility Research Account Fund.
- B. Each registrant distributing commercial fertilizer in this state shall file with the State Board of Agriculture not later than the last day of January and July of each year, a semiannual tonnage report stating under oath:
  - 1. The number of net tons of fertilizer distributed during the preceding six (6) calendar months;
  - 2. The amount in tons of each grade of fertilizer distributed during the preceding six (6) calendar months; and
  - 3. Whether the fertilizer was distributed in bag, bulk, or liquid.
- C. If no fertilizer was sold or distributed in this state for the semiannual period, the registrant shall submit a statement reflecting that information and shall remit a minimum fee of Ten Dollars (\$10.00). If the inspection fee and tonnage report are not filed and the payment of the inspection fee is not made within thirty (30) days after the end of the specified filing period, a collection fee of ten percent (10%) of the inspection fee due or a minimum Ten Dollars (\$10.00), shall be assessed and added to the amount due.
- D. Sales or exchanges between importers, manufacturers, distributors, registrants, or licensees are exempt.
- E. When more than one person is involved in the distribution of a fertilizer, the last person who has the fertilizer registered and who distributed the fertilizer to a nonregistrant dealer or consumer is responsible for reporting the tonnage and paying the inspection fee, unless the report and payment is made by a prior distributor or manufacturer of the fertilizer.

- F. If the Board finds any deficient inspection fees due as a result of an audit of the records of any person subject to the provisions of the Oklahoma Fertilizer Act, the Board shall assess a penalty fee of ten percent (10%) of the amount due, with a maximum not to exceed Two Thousand Dollars (\$2,000.00) or a minimum of One Hundred Dollars (\$100.00) whichever is greater. The audit penalty shall be added to the deficient inspection fees due and payment shall be made within thirty (30) days of notice of the deficiency.
- G. No information furnished to the Board under this section shall be disclosed in a way which divulges proprietary information about the operation of any person.
- H. Each registrant, distributor, or manufacturer shall keep accurate records of the tonnage of fertilizer distributed in this state.

**§ 2-8-77.9. Sampling And Analysis Methods**

- A. The methods of sampling and analysis shall be those adopted by the Association of Official Analytical Chemists. In cases not covered by these methods, or in cases where methods are available in which improved applicability has been demonstrated, the State Board of Agriculture may adopt appropriate methods from other sources.
- B. The Board, in determining for administrative purposes, whether any fertilizer is deficient in plant food, shall be guided solely by the official sample as defined in Section 8-77.3 of Title 2 of the Oklahoma Statutes and obtained and analyzed as provided for in subsection A of this section.
- C. Official samples establishing a penalty for nutrient deficiency shall be retained for a minimum of ninety (90) days from issuance of a deficiency report.

**§ 2-8-77.10. Penalties**

- A. A payment of two (2) times the value of the deficiency or deficiencies shall be assessed:
  - 1. If the analysis shows that a fertilizer is deficient in one of its guaranteed primary plant nutrients beyond the investigational allowances and compensations as established by rules; or
  - 2. If the overall commercial value of the fertilizer is below the level established by rule, a penalty payment of two (2) times the value of the deficiency or deficiencies shall be assessed.
- C. When a fertilizer is subject to a penalty payment under subsection A of this section, the larger penalty payment shall apply.

- D. All penalty payments assessed under this subsection A of this section shall be paid by the registrant or licensee to the consumer of the lot of fertilizer represented by the sample analyzed within thirty (30) days after the date of notice. Copies of consumer refund receipts shall be forwarded to the State Board of Agriculture. If a consumer cannot be found, the penalty shall be paid and deposited in the State Department of Agriculture Revolving Fund.
- E. A deficiency in an official sample of mixed fertilizer resulting from non-uniformity is not distinguishable from a deficiency due to actual plant nutrient shortage and is properly subject to official action.

**§ 2-8-77.11. Determining Commercial Value For Purpose Of Assessing Penalty**

For the purpose of determining the commercial value to be applied under the provisions of Section 8-77.10 of Title 2 of the Oklahoma Statutes, the State Board of Agriculture or its agent shall determine the values per unit of nitrogen, available phosphate, and soluble potash in fertilizers in this state. The value determined shall be used in assessing penalty payments.

**§ 2-8-77.12. Misbranded Fertilizer**

No person shall distribute misbranded fertilizer. A fertilizer shall be misbranded if:

- 1. Its labeling is false or misleading;
- 2. It is distributed under the name of another fertilizer product; or
- 3. It is not labeled as required in Section 8-77.5 of Title 2 of the Oklahoma Statutes and rules promulgated by the State Board of Agriculture.

**§ 2-8-77.13. Adulterated Fertilizer Product**

No person shall distribute an adulterated fertilizer product. A fertilizer shall be adulterated if:

- 1. It contains any deleterious or harmful substance in sufficient amount to render it injurious to beneficial plant life, animals, humans, aquatic life, soil, or water when applied in accordance with directions for use on the label;
- 2. If adequate warning statements or directions for use which may be necessary to protect plant life, animals, humans, aquatic life, soil, or water are not shown upon the label;
- 3. Its composition falls below or differs from that which it is purported to possess by its labeling; or
- 4. It contains unwanted crop seed or weed seed.

**§ 2-8-77.14. Authority To Publish Information.**

The State Board of Agriculture shall have authority to publish information concerning the distribution of fertilizer and results of analyses based on official samples of fertilizer distributed within the state.

**§ 2-8-77.15. Contamination Of Ground Water – Preventive Measures - Jurisdiction**

- A. No person owning or operating a fertilizer storage facility or a commercial fertilizer facility shall discharge or release or place or cause to be placed any fertilizer material in a location where it is likely to cause contamination of any surface water or groundwater of this state. The provisions of this subsection shall not prohibit or restrict the land application of fertilizer for agriculture purposes or plant growth.
- B. Preventive measures designed to minimize the possibility of fertilizer substances being introduced into waters of the state shall be subject to State Board of Agriculture jurisdiction including regulatory response.
- C. 1. The Department of Environmental Quality shall have environmental jurisdiction over:
  - a. commercial manufacturers of fertilizers, grain and feed products, and chemicals, and over manufacturing of food and kindred products, tobacco, paper, lumber, wood, textile mills, and other agricultural products,
  - b. slaughterhouses, but not including feedlots at these facilities, and
  - c. aquaculture and fish hatcheries,including, but not limited to, discharges of pollutants and storm water to waters of the state, surface impoundments and land applications of wastes and sludge, and other pollution originating at these facilities.
- 2. Facilities which store grain, feed, seed, fertilizer, and agricultural chemicals that are required by federal National Pollutant Discharge Elimination System (NPDES) regulations to obtain a permit for storm water discharges shall only be subject to the jurisdiction of the Department of Environmental Quality with respect to such storm water discharges.
- D. Bulk fertilizers shall be stored in a manner that minimizes the release of fertilizers and protects the environment. Fertilizer use and application may be established in rules to protect the environment.

### **§ 2-8-77.16. Seizure Of Fertilizer**

Any lot of fertilizer not in compliance with the provisions of the Oklahoma Fertilizer Act shall be subject to seizure on petition of the State Board of Agriculture to a court in the area the fertilizer is located. In the event the court finds the fertilizer to be in violation of the Oklahoma Fertilizer Act and orders the condemnation of the fertilizer, it shall be disposed of in a manner consistent with the quality of the fertilizer and the laws of the state.

### **§ 2-8-77.17. Prosecutorial Discretion - Minor Violations**

Nothing in the Oklahoma Fertilizer Act shall be construed as requiring the State Board of Agriculture to initiate prosecution or apply for an administrative seizure warrant for minor violations of the law when the Board believes that the public interests will be best served by a written notice of violation or warning.

### **§ 2-8-77.18. Sales And Exchanges Of Licensed Brands Among Importers, Manufactures, Or Manipulators**

Nothing in the Oklahoma Fertilizer Act shall be construed to restrict or avoid sales or exchanges of fertilizer to each other by importers, manufacturers, or manipulators who mix fertilizer materials for sale, or as preventing the free and unrestricted shipments of fertilizer to manufacturers or manipulators who have registered and licensed their brands as required by law.

## **OKLAHOMA FERTILIZER RULES**

### **PART 1. GENERAL**

#### **35:30-29-21. Fertilizer Terminology**

The following words or terms, when used in this Subchapter, shall have the following meaning, unless the context clearly indicates otherwise:

1. **"Approved"** means approval by the Board or the Department.
2. **"Aqua ammonia"** means an aqueous solution of anhydrous ammonia generally containing from 18 to 30 percent ammonia (NH<sub>3</sub>) by weight and having a vapor pressure ranging from 0 to 10 psig at 104 degrees F.
3. **"Commercial storage facility"** means a licensed location storing liquid, dry, or anhydrous ammonia fertilizer.
4. **"Control official"** means the authorized agents responsible for enforcing the fertilizer laws and rules.

5. **"Discharge"** means any accidental release of anhydrous ammonia or spilled fertilizer in a quantity exceeding 55 US gallons of liquid or 200 pounds of dry bulk fertilizer.
6. **"Dry bulk fertilizer"** means non-liquid fertilizer in an undivided quantity exceeding 200 pounds.
7. **"Elephant ring"** means an open topped storage container serving as a secondary containment vessel and holding smaller primary storage tanks.
8. **"Field operations"** means the application of fertilizer to soil or plants through normal agricultural or horticultural practices.
9. **"Liquid bulk fertilizer"** means fluid fertilizer in an undivided quantity exceeding 55 US gallons.
10. **"Liquid fertilizer"** means fertilizer in fluid form and includes solutions, emulsions, suspensions, and slurries. Liquid fertilizer does not include anhydrous ammonia.
11. **"Low pressure nitrogen solutions"** means an aqueous solution of ammonium nitrate and/or urea and/or other nitrogen carriers, containing various quantities of free ammonia exceeding 2% by weight. Aqua ammonia and non-pressure nitrogen solutions commonly referred to as 28%, 30%, or 32% nitrogen solutions are excluded from this definition.
12. **"Non-commercial storage facility"** means any storage tank or facility used by an individual who neither sells nor distributes any type of fertilizer to another person.
13. **"Operational area"** means an area or areas at a fertilizer storage facility where fertilizers are transferred, loaded, unloaded, mixed, or where fertilizers are cleaned or washed from application equipment, storage containers, or transportation equipment.
14. **"Operational area containment"** means any structure or system designed and constructed to effectively intercept and contain operational spills including container or contaminated wash water and rainwater and to prevent runoff or leaching from a storage facility.
15. **"Primary containment"** means the storage of liquid or dry bulk fertilizer in storage containers at a storage facility.
16. **"Secondary containment"** means any structure used to contain product spills from bulk storage tanks and prevent runoff or leaching.

### 35:30-29-22. General

(a) **Guarantee requirements.** Other plant nutrients when mentioned in any form or manner shall be registered and shall be guaranteed. Guarantees shall be made on the elemental basis. Sources of the elements guaranteed and proof of availability shall be provided to the Board upon request. Except guarantees for those water soluble nutrients labeled for ready to use foliar fertilizer, ready to use specifically liquid fertilizer, hydroponic, or continuous liquid feed programs and guarantees for potting soils, the minimum percentages that shall be accepted for registration are as follows:

- (1) Calcium (Ca) - 1.0000%
- (2) Magnesium (Mg) - 0.5000%
- (3) Sulfur (S) - 1.0000%
- (4) Boron (B) - 0.0200%
- (5) Chlorine (Cl) - 0.1000%
- (6) Cobalt (Co) - 0.0005%
- (7) Copper (Cu) - 0.0500%
- (8) Iron (Fe) - 0.1000%
- (9) Manganese (Mn) - 0.0500%
- (10) Molybdenum (Mo) - 0.0005%
- (11) Sodium (Na) - 0.1000%
- (12) Zinc (Zn) - 0.0500%

(b) **Guarantees for plant nutrients.** Only guarantees or claims for the above listed plant nutrients recognized by AAFPCO shall be accepted. Proposed labels and directions for the use of the fertilizer shall be furnished with the application for registration upon request. Any of the above listed elements that are guaranteed shall appear in the order listed and shall immediately follow guarantees for the primary nutrients of nitrogen, phosphate, and potash.

(c) **Warning or caution statement.** A warning or caution statement may be required for any product which contains a nutrient in water soluble form when there is evidence that the micro-nutrient is present in excess of a guaranteed percentage that may be harmful to certain crops or where there are unusual environmental conditions.

(d) **Examples of warning or caution statements:**

- (1) Directions: Apply this fertilizer at a maximum rate of (number of pounds) per acre for (name of crop).
- (2) CAUTION: Do not use on other crops. The (name of micro-nutrient) may cause injury to them.
- (3) CAUTION: Apply this fertilizer at a maximum rate of (number of pounds) per acre for (name of crop). Do not use on other crops; the (name of micro-nutrient) may cause serious injury to them.

- (4) **WARNING:** This fertilizer carries added (name of micro-nutrient) and is intended for use only on (name of crop). Its use on any other crops or under conditions other than those recommended may result in serious injury to the crops.
- (5) **CAUTION:** This fertilizer is to be used only on soil which responds to (name of micro-nutrient). Crops high in (micro-nutrient) are toxic to grazing animals (ruminants).
- (6) **CAUTION:** (Name of micro-nutrient) is recommended for all crops where (name of micro-nutrient) may be deficient; however, excessive application to susceptible crops may cause damage.

(e) **Fertilizer labels.** The following information, in the format presented in Appendix A of this Chapter, is the minimum required for all fertilizer labels. For packaged products, this information shall either (1) appear on the front or back of the package, (2) occupy at least the upper-third of a side of the package, or (3) be printed on a tag and attached to the package. This information shall be in a readable and conspicuous form. For bulk products, this same information in written or printed form shall accompany delivery and be supplied to the purchaser at time of delivery.

- (1) Net weight
- (2) Brand
- (3) Grade
- (4) Guaranteed Analysis

**EXAMPLES FROM APPENDIX A:**

Total Nitrogen (N)\* ..... \_\_\_\_\_ %  
 \_\_\_\_\_ % Ammoniacal Nitrogen  
 \_\_\_\_\_ % Nitrate Nitrogen  
 \_\_\_\_\_ % Water Insoluble Nitrogen  
 \_\_\_\_\_ % Urea Nitrogen  
 \_\_\_\_\_ % (Other recognized and determinable forms of N)  
 Available Phosphate (P<sub>2</sub>O<sub>5</sub>) ..... \_\_\_\_\_ %  
 Soluble Potash (K<sub>2</sub>O) ..... \_\_\_\_\_ %  
 (Other nutrients, elemental basis)..... \_\_\_\_\_ %

\*If chemical forms of any nutrients are claimed or required, the chemical forms shall be shown.

- (5) Sources of nutrients shall be listed below the completed guaranteed analysis statement.
- (6) Name and address of registrant or licensee.
- (7) Directions for use for fertilizer to the end user shall follow the guidelines established by the Association of American Plant Food Control Officials.



- (f) **Plant nutrients.** When a plant nutrient is broken down into the component forms, the percentage for each component shall be shown before the name of the form as illustrated in Appendix B of this Chapter.

EXAMPLES FROM APPENDIX B:

Total Nitrogen (N) .....	_____%
_____ % Ammoniacal Nitrogen	
_____ % Nitrate Nitrogen	
Magnesium (Mg) .....	_____%
_____ % Water Soluble Magnesium (Mg)	
Sulfur (S) .....	_____%
_____ % Free Sulfur (S)	
_____ % Combined Sulfur (S)	
Iron (Fe) .....	_____%
_____ % Chelated Iron (Fe)	
Manganese (Mn) .....	_____%
_____ % Water Soluble Manganese (Mn)	

(g) **Slowly released plant nutrients.**

- (1) No fertilizer label shall bear a statement that implies that certain plant nutrients contained in a fertilizer are released slowly over a period of time, unless the slow release components are identified and guaranteed at a level of at least 15% of the total guarantee for that nutrient.
- (2) Types of products with slow release properties recognized are (1) water insoluble, such as natural organics, ureaform materials, urea-formaldehyde products, isobutylidene diurea, oxamide, etc., (2) coated slow release, such as sulfur coated urea and other encapsulated soluble fertilizer, (3) occluded slow release, where fertilizer or fertilizer materials are mixed with waxes, resins, or other inert materials and formed into particles and (4) products containing water soluble nitrogen such as ureaform materials, urea formaldehyde products, methylenediurea (MDU), dimethylenetriurea (DMTU), dicyanodiamide (DCD), etc. The terms "water insoluble", "coated slow release", "slow release", "controlled release", "slowly available water soluble", and "occluded slow release" are accepted as descriptive of these products, provided the manufacturer can show a testing program substantiating the claim (testing under guidance of Experiment Station personnel or a recognized reputable researcher acceptable to the Board. A laboratory procedure, acceptable to the Board for evaluating the release characteristics of the product(s) shall also be provided by the manufacturer.

- (3) Until more appropriate methods are developed, AOAC International Method 970.04 (15th Edition) is to be used to confirm the coated slow release and occluded slow release nutrients and others whose slow release characteristics depend on particle size. AOAC International Method 945.01 (15th Edition) shall be used to determine the water insoluble nitrogen of organic materials.
- (h) **Definitions.** Except as the Board designates in specific cases, the names and definitions for commercial fertilizer shall be those adopted by the Association of American Plant Food Control Officials.
- (i) **Percentages.** The term of "percentage" by symbol or word, when used on a fertilizer label shall represent only the amount of individual plant nutrients in relation to the total product by weight.
- (j) **Penalties.** When the combined commercial value for total nitrogen, available phosphoric acid or phosphate P<sub>2</sub>O<sub>5</sub>, and soluble potash is found to be 4% or more deficient from the guarantee, or when any one of the above is found to be 10% deficient from the guarantee, the penalty assessed the manufacturer, or custom blender shall be twice the commercial value of the nutrient deficiency. Penalties shall be assessed in accordance with the AAPFCO formula: a 4% penalty is calculated at twice the value of the deficiency times total tons (i.e., 5 tons of 34-0-0 found to be 30.97-0-0 is 2 x \$12.12 x 5); a 10% penalty is calculated at twice the units deficient times the value per unit times total tons (i.e., 5 tons of 27-13-13 found to be 23.26-13-13 is 2 x 3.76 x commercial value x 5). When a fertilizer is subject to a penalty payment under both 4% and 10%, the larger penalty shall be assessed.
- (1) A deficiency in an official sample of mixed fertilizer resulting from non-uniformity is not distinguishable from a deficiency due to actual plant nutrient shortage and is properly subject of official action.
- (2) The commercial values of fertilizer shall be established by the Board for calculating penalties.
- (3) Penalty assessment refunds shall be documented by receipts signed by the consumer acknowledging the refund or credit, and shall be furnished to the Board within forty-five (45) days after receiving notice of the penalty assessed. If the consumer(s) cannot be found, the penalty (or amount not refunded) shall be paid to the Board within forty-five (45) days after receiving notice of the penalty assessed.
- (k) **Organic nitrogen.** If an amount of nitrogen is designated as organic, then the water insoluble nitrogen or the slow release nitrogen guarantee shall not be less than 60% of the nitrogen so designated. Coated urea shall not be included in meeting the 60% requirement.

- (l) **Discharges.** For the purpose of protecting surface and groundwater, any discharge of two hundred (200) pounds of dry or fifty-five (55) gallons or more of liquid fertilizer shall be reported (telephone or fax) to the Board or its authorized agent within 24 hours if discharged outside the loading, transfer or application area.
- (m) **Accidental discharge response plan for dry, liquid, and anhydrous ammonia.** The operator of a commercial storage facility shall prepare a written "Discharge response plan" for the storage facility. The plan shall include:
- (1) The identity and telephone number of the persons or agencies who are to be contacted in the event of a discharge, including persons responsible for the stored fertilizer; and,
  - (2) For each bulk fertilizer stored at the facility, a complete copy of the storage container labeling required by these rules and the labeling required under Oklahoma Fertilizer Law to accompany sale of the fertilizer; and,
  - (3) An identification, by location, of every storage container located at the storage facility, and the type of bulk fertilizer stored in each storage container; and,
  - (4) For each type of bulk fertilizer stored at the facility, the procedures to be used in controlling and recovering, or otherwise responding to a discharge; and,
  - (5) Procedures to be followed in using or disposing of a recovered discharge.
- (n) **Availability.** A copy of the discharge response plan shall be kept readily available at the storage facility and at the nearest local office from which the storage facility is administered.
- (o) **Community awareness.** The operator of a commercial storage facility shall inform the local fire and police departments, and the appropriate state environmental agency, of the existence of the plan and shall provide a current copy of the plan to the local fire and police departments and the appropriate state environmental agency.

### **35:30-29-23. Heavy Metals**

Fertilizers stating guaranteed amounts of phosphates or micronutrients shall be considered adulterated if the fertilizers contain metals in amounts greater than the levels of metals established by the Association of American Plant Food Control Officials in the SUIP 25 guide.

## **PART 3. LIQUID, DRY, AND ANHYDROUS AMMONIA**

### **35:30-29-31. Liquid Fertilizer**

#### **(a) Basic requirements.**

- (1) Storage tanks and appurtenances shall be constructed installed and maintained to prevent the discharge of liquid fertilizer.
- (2) Materials used in construction or repair of storage tanks and appurtenances may not be of a type which react chemically or electrolytically with stored liquid fertilizer in a way which may weaken the storage tanks or appurtenances or create a risk of discharge.
- (3) Metals used for valves, fittings, and repairs on metal tanks shall be compatible with the metals used in the construction of the storage tank, so that the combination of metals does not cause or increase corrosion which may weaken the storage tank or its appurtenances or create a risk of discharge.
- (4) Storage tanks and appurtenances shall be designed to handle all operating stresses, taking into account static head, pressure buildup from pumps and compressors, and any other mechanical stresses to which the storage tanks and appurtenances may be subjected to in the foreseeable course of operations.

**(b) Prohibition against underground storage.** No person shall store liquid fertilizer in an underground or lined pit storage container.

**(c) Anchoring storage containers.** Storage tanks shall be anchored to prevent flotation or instability.

#### **(d) Security.**

- (1) Storage tanks and appurtenances shall be secured to provide reasonable protection against vandalism or unauthorized access which may result in a discharge.
- (2) Valves on storage tanks shall be locked or secured except when persons responsible for the facility are present at the facility.
- (3) Valves on rail cars, nurse tanks and other mobile fertilizer tanks parked overnight at a storage facility shall be locked or secured except when persons responsible for facility security are present at the facility.

**(e) Liquid level gauging device.**

- (1) Every storage tank shall be equipped with a liquid level gauging device by which the level of fluid in the storage tank can be readily and safely determined.
- (2) A liquid level gauging device is not required if the level of liquid in a storage tank can be readily and reliably measured by other means.
- (3) Liquid level gauging devices shall be secured to protect against breakage or vandalism which may result in a discharge.
- (4) External sight gauges are prohibited unless they are equipped with a shut-off valve.

**(f) Labeling of storage tanks.** Every storage tank shall be clearly labeled to identify its fertilizer contents.

**(g) Inspection and maintenance.**

- (1) The operator of a storage facility shall routinely inspect and maintain storage facilities, storage tanks, and appurtenances to minimize the risk of a discharge.
- (2) The operator shall inspect valves and other appurtenances for leakage at least weekly when facilities are being used for storage.

**35:30-29-32. Mobile/Tilt Tanks Operated By Commercial Storage Facilities**

Licensed fertilizer dealers with permanently contained facilities can utilize mobile/tilt tanks. Mobile/tilt tanks shall be empty when stored at a location other than the application site. Any licensee utilizing mobile/tilt tanks shall comply with the following:

- (1) The licensee shall mark each mobile/tilt tank on a background of sharply contrasting colors in letters at least two inches high with the following information:
  - (A) The words "Liquid Fertilizer".
  - (B) The brand name/grade.
  - (C) The name and telephone number of each person who is to be contacted in the event of a discharge, including any persons responsible for the stored fertilizer.
- (2) Any mobile/tilt tank used in this manner shall be located in the application field or immediately adjacent field only, and not located on public easements or public vehicle right-of-ways.

### **35:30-29-33. Sprinkler Irrigation Systems**

Any fertilizer sprinkler irrigation system shall employ a method to prevent the possible backflow of material. The methods shall include, but not be limited to, the employment of a check valve or similar in-line device, or other positive mechanical method, designed to ensure that backflow shall not occur.

### **35:30-29-34. Pollution Prevention**

- (a) Fertilizer materials shall not be stored, applied, or handled in a manner that is likely to cause pollution of any air, lands, or waters of the state.
- (b) The responsible party shall pay all costs associated with cleanup and remediation of any spill or pollution caused by the storage, application, or handling of fertilizer materials.

### **35:30-29-35. Secondary Containment For Commercial Storage Facilities**

- (a) **Capacity/diking.** The diked area for containment of commercial storage facilities shall contain, below the height of the dike, 110% of the volume of the largest storage tank within the diked area.
- (b) **Walls.** The walls of a secondary containment facility shall be constructed of earth, steel, concrete, or solid masonry, or other material specifically approved by the control official, and be designed to withstand a full hydrostatic head of any discharged fluid and weight load of material used in construction.
  - (1) Cracks and seams shall be sealed to prevent leakage.
  - (2) Walls constructed of earth or other permeable material shall be lined.
  - (3) Earthen walls shall have a horizontal to vertical slope of at least 3 to 1, unless a steeper slope is consistent with good engineering practice, and shall be packed and protected for erosion.
  - (4) The top of earthen walls shall be no less than 2.5 feet wide.
  - (5) Walls may not exceed 6 feet in height above interior grade unless provisions are made for normal access and necessary emergency access to tanks, valves, and other equipment, and for safe exit from the secondary containment facility.
  - (6) Walls constructed of concrete or solid concrete shall rest upon a floating base, or upon suitable concrete footings.

(c) **Lining.**

- (1) The base of a secondary containment facility, and the interior of any earthen walls of the facility shall be lined with asphalt, concrete, an approved synthetic liner, or a clay soil liner or other liners approved by the control official designed to limit permeability of the base and walls while compatible with the stored product. Liners shall meet the requirements of this subsection. Geocomposite liners, such as a layer of sodium bentonite encapsulated between layers of geotextile are considered synthetic liners.
- (2) Asphalt or concrete liners shall be designed according to good engineering practices to withstand any foreseeable loading conditions, including a full hydrostatic head of discharged fluid and static loads of storage containers, including appurtenances, equipment and contents. Cracks and seams shall be sealed to prevent leakage.
- (3) Synthetic liners and installation plans shall be approved by the control official. A synthetic liner may not be approved by the control official until the manufacturer of the liner provides the control official with a written confirmation of compatibility, and a written estimate of the life of the liner. Synthetic liners shall be installed under the supervision of a qualified representative of the manufacturer or professional engineer, and all field constructed seams shall be tested, and repaired if necessary, in accordance with the manufacturer's recommendations.
- (4) The surface soil liner shall be sealed, including the berm of an earthen dike with a sealing agent such as sodium bentonite, attapulgate, or a similar clay material. The liner shall be constructed in accordance with reliable civil engineering practices, to achieve a coefficient of permeability not to exceed  $1 \times 10^{-6}$  cm/sec, with a thickness of not less than 6 inches. The floor and internal walls of the containment area shall have a protective barrier at least equivalent to 6 inches of sand, soil, or gravel to limit desiccation, evaporation, freeze/thaw cycling, or other physical damage.
- (5) A liner need not be installed directly under a storage tank having a capacity of one hundred thousand (100,000) gallons or more which has been constructed on site and put into use prior to the effective date of this rule provided that one (1) of the following alternative procedures are compiled with, certified to in writing by an official of the company which owns the tank, and the certificate is filed with the control official:
  - (A) Monitoring devices shall be installed in angled borings under each tank. These monitoring devices shall constitute a leak detection system for each tank in advance of the point at which any leak would reach groundwater.

(B) The number, length, and depth of each boring shall be determined on the basis of site characteristics. The array of monitoring devices under each tank shall constitute the best practical early warning detection system for tank leakage.

(C) Each monitoring plan under this alternative shall be implemented only upon review and approval of the control official.

**(d) Elephant rings.**

- (1) Individual storage tanks may be contained with a secondary storage container ("elephant ring") in lieu of a diked containment area. The "elephant ring" serves as a second containing wall in the event that the primary storage tank develops a leak.
- (2) Both the primary storage tank and the "elephant ring" shall be fabricated of material compatible with each other and with the fertilizer being stored. Dissimilar metals between the primary storage tank and the "elephant ring" contribute to electrolytic corrosion and this use is prohibited, unless provisions are made to prevent the corrosion.
- (3) The height of the "elephant ring" wall shall not exceed 4 feet unless provisions are made for escape should flooding occur. The volume contained within the secondary storage walls up to the working height of the "elephant ring" shall be sufficient to contain a volume 10% greater than the volume contained in the primary storage tank plus the volume displaced by the footings of any equipment (i.e., pumps, meters, etc.) placed within the secondary containment vessel.
- (4) The "elephant ring" shall be free of leaks and structural defects. The base shall be protected from corrosion, both from inside and outside, and shall be underlain by a concrete pad or with eight inches of compacted gravel beneath four inches of compacted sand, or clay, or as recommended by the manufacturer of the "elephant ring" and approved by the control official.
- (5) All piping connections to the primary storage tank shall be made over the wall of the "elephant ring" and shall be adequately supported and braced. Pumps and other fixtures, if located within the "elephant ring" containment structure, shall be placed on an elevated platform above the top of the elephant ring or protected from flooding.
- (6) Accumulations of storm water and other material shall be promptly removed from the "elephant ring". The "elephant ring" shall not have floor or wall drains for this purpose, but pumps or other over-the-wall methods may be used. Precipitation shall be reused where possible, or disposed of according to state and local regulations.



- (e) **Drainage from secondary containment areas.** No fertilizer secondary containment areas, or existing containment areas having major renovation, shall have a relief outlet and valve. The base shall slope to a collection point where storm water can be removed from the secondary containment area by pumping or other means. Precipitation shall be reused where possible, or disposed of according to state and local regulations.
- (f) **Inspection and maintenance requirements.**
  - (1) Every secondary containment shall be inspected by the operator of the storage facility at intervals of not greater than six months and be maintained as necessary to assure compliance with these rules.
  - (2) All secondary containment areas shall be maintained free of debris and foreign matter.
- (g) **Secondary containment exemption.** Secondary containment shall not be required for storage tanks equipped with a synthetic liner inside the tank if installed under the supervision of a qualified representative of the manufacturer or professional engineer. All field constructed seams shall be tested and repaired in accordance with the manufacturer's recommendations. The manufacturer of the liner shall provide the control official a written confirmation of compatibility for the product stored and a written estimate of the life of the liner.

### **35:30-29-36. Loading and Unloading Pads For Commercial Storage Facilities**

- (a) **General.**
  - (1) Areas used for the loading of liquid fertilizer into storage tanks, or for unloading liquid fertilizer from storage tanks into applicators or nurse tanks shall be paved with asphalt, concrete, or other approved material.
  - (2) The pad shall be designed, constructed, and maintained to handle all loading conditions to which it is exposed. Cracks and seams shall be kept sealed.
  - (3) The loading pad shall drain to a sump pit containment constructed of concrete with a liquid capacity of at least 55 gallons. All liquid fertilizer shall be loaded and unloaded on this pad.
  - (4) Discharges incident to loading or unloading shall be promptly recovered from the paved surface and concrete sump.
- (b) **Protection of tanks and appurtenances.** Storage tanks and appurtenances, including pipes, shall be protected against reasonably foreseeable risks of damage by trucks and other moving vehicles engaged in the loading or unloading of liquid fertilizer.

- (c) **Inspection and maintenance.** The operator of a commercial storage facility shall routinely inspect and maintain loadout and unloading pads and sumps.

### **35:30-29-37. Dry Fertilizer Requirements**

- (a) The owner or operator shall clearly label each dry bulk storage bin with the grade to identify its fertilizer contents. This requirement shall only apply to individual storage bins and shall not be construed to require labeling on the exterior of any building associated with the dry bulk storage bin.
- (b) The owner or operator shall ensure all dry bulk fertilizers are stored inside a sound structure or device having a cover or rooftop, sidewalls, and base sufficient to prevent contact with precipitation and surface waters.
- (c) The owner or operator shall pave any area used for blending, loading, or unloading dry bulk fertilizer with asphalt or concrete.
- (1) When loading or unloading occurs on railroad tracks, the owner or operator shall contact the railroad company to request permission to pave those areas.
- (2) If the railroad company denies permission, the owner or operator shall notify the Department and request an exception for those limited areas where permission was denied. In no case shall the Department require paving of an area when permission to pave is denied.
- (3) The Department may, on a case by case basis, allow the use of impermeable material other than asphalt or concrete on railroad tracks, so long as the impermeable material allows for cleanup.
- (d) The owner or operator shall ensure all paved areas are of sufficient size to allow cleanup of any spilled fertilizer and shall ensure they are kept clean.

### **35:30-29-37.1. Ammonium Nitrate Security**

- (a) Ammonium nitrate storage shall be secured to provide reasonable protection against vandalism, theft, or unauthorized access.
- (b) Fertilizer retailers shall obtain the following regarding any sale of ammonium nitrate:
- (1) Date of sale;
- (2) Quantity purchased;
- (3) License number of the purchaser's valid state or federal driver's license, or other picture identification card number approved for purchaser identification by the Board; and
- (4) The purchaser's name, current physical address, and telephone number.

- (c) Records created pursuant to this rule shall be maintained for a minimum of two years on a form or using a format set forth by the Board.
- (d) Any retailer of ammonium nitrate may refuse to sell to any person attempting to purchase ammonium nitrate out of season, in unusual quantities, or under suspect purchase patterns.

### **35:30-29-38. Anhydrous Ammonia Requirements**

#### **(a) General safety requirements.**

- (1) Each tank used with a system shall be constructed and tested in accordance with parts UG-1 through UG-36, inclusive, entitled "General Requirements for All Methods of Construction and All materials" and parts UF-1 through UF-136 entitled "Requirements for Pressure Vessels Fabricated by Forging" as published in Section VIII, Division I of the ASME Boiler and Pressure Vessel Code, July 1, 1983 edition amendments, supplements, or successors.
- (2) No person shall fill a storage or nurse tank with anhydrous ammonia unless the tank bears a manufacturer's nameplate showing that it is a code container.
- (3) The copy of the report form from each inspection and re-qualification, together with tank repair and mill test reports, if any, shall be maintained for the entire service life of the tank. The reports shall be forwarded with the tank when relocated.
- (4) For protection to the public and safety for individuals, the storage of nurse tanks shall conform to the same subsection as permanent storage installations in order to prevent tampering by individuals, which may cause injury to human health.
- (5) Anhydrous ammonia tanks of 3,000 gallon water capacity or less shall not be used for any other commodity except anhydrous ammonia.
- (6) Tank trucks, semi-trailers, nurse tanks, and trailers transporting anhydrous ammonia shall not be left unattended on public thoroughfares or in densely populated areas.
- (7) If the ammonia hose is marked with:
  - (A) the year of manufacture and made from the following materials, it shall be replaced per the indicated service life with not more than one (1) year shelf life added:
    - (i) Rayon - 2 years
    - (ii) Nylon - 4 years
    - (iii) Stainless Steel - 6 years

- (B) a manufacturer's removal date, it shall be replaced prior to that date (i.e., the manufacturer removal date is 2005, the hose shall be removed prior to January 1, 2005).
- (8) All anhydrous ammonia high pressure transfer hoses shall be clearly marked at least once every five feet with the manufacturer's name or trademark, the words Anhydrous Ammonia, the maximum working pressure in PSIG, and the year of manufacture or manufacture removal date. Bulk hoses shall not be used. All hose ends shall be connected by the manufacturer.
- (9) Any accident or release, involving anhydrous ammonia, shall be reported (telephone or fax) to the Oklahoma Department of Agriculture as soon as possible, no later than 24 hours following the incident, so that an investigation may be made before the area is disturbed.
- (A) An accident includes nurse tanks that have been in a wreck, overturned tanks, vandalism (without a release), storage tank being damaged, or "ANY" personal injuries.
- (B) A release includes valve malfunctions, ruptured hoses, or any time anhydrous ammonia is released into the air with the exception of safety relief (pop off and hydrostatic) valves.
- (10) Converted railroad tank cars shall not be used for the storage of anhydrous ammonia unless they have been retested and meet the requirements of this subsection.
- (11) All storage installations shall have on hand, as a minimum, the following equipment in a readily accessible location for emergency and rescue purposes:
- (A) One full face gas mask with one industrial size ammonia canister with current date and at least one spare ammonia canister in a readily accessible location. A positive pressure self-contained breathing apparatus shall be used in ammonia contaminated atmospheres that are immediately dangerous to life or health. Gas masks and self-contained breathing apparatus shall be approved by NIOSH/MSHA under provisions of 30 CFR Part II. Procedures and training shall be in accordance with 29 CFT Part 1910 and documented.
- (B) One pair of approved protective gloves made of material impervious to anhydrous ammonia.
- (C) One pair of protective boots made of material impervious to anhydrous ammonia.
- (D) One protective slicker and/or protective pants and jacket made of material impervious to anhydrous ammonia.
- (E) Approved flexible fitting, hooded ventilation goggles and one full face shield.

- (12) Each employee shall be provided with a pair of approved gloves and a pair of approved flexible fitting, hooded ventilation goggles and, as an option, a full face shield worn over the goggles, which shall be worn when making, breaking, or testing, any ammonia connection, transferring ammonia, or performing maintenance on an ammonia system under pressure.
  - (13) Each vehicle transporting anhydrous ammonia shall carry a container of at least five gallons of water and shall be equipped with one pair approved protective gloves; a full face gas mask; a pair of approved flexible fitting hooded ventilation goggles, and as an option, one full face shield to be worn over the goggles. The driver shall be instructed in their use and the proper action to take to provide for their safety.
  - (14) If a leak occurs in transportation equipment and it is not practical to stop the leak, the driver should move the vehicle to an isolated location downwind from populated communities or heavily traveled highways.
  - (15) Wheel chocks for nurse tanks and railcars shall be available and shall be used when loading or unloading.
  - (16) It is a violation for any person to transfer or deliver any anhydrous ammonia into a storage or nurse tank having defects which are plainly apparent.
  - (17) No container pressure relief device shall be used after the replacement date as specified by the manufacturer.
  - (18) An attendant is required to transfer anhydrous ammonia and shall be trained in safe operating practices, use of equipment, safety devices, and the proper action to take in the event of emergencies.
  - (19) Additional safety guidelines found in the American National Standards Institute, Inc., Safety Requirements for Storage and Handling of Anhydrous Ammonia may be applied at the Board's discretion.
- (b) **Minimum safety requirements for anhydrous ammonia storage tanks.**  
Minimum safety requirements for storage tank facility operations are as follows:
- (1) A sign shall be on display at each location in a conspicuous place stating the name, address, and phone number of the nearest representative, agent, or owner of the storage system in letters not less than one inch high.
  - (2) An easily accessible shower and/or a minimum of one hundred (100) gallons of clean water in an open top container shall be available at every anhydrous ammonia storage location.
  - (3) Storage tanks shall be free of leaks.

- (4) Tank supports shall be in good condition.
- (5) Storage tanks shall have a reflective surface maintained in good condition. White is recommended for painted surfaces, but other light reflective colors are acceptable.
- (6) All hoses shall be maintained, approved for anhydrous ammonia and meet current date specifications.
- (7) Hose hang-up racks shall be provided and operational.
- (8) All gauges shall be operative with markings clearly visible.
- (9) Vapor valves shall be color coded safety yellow and labeled.
- (10) Liquid valves shall be color coded safety orange and labeled.
- (11) All pressure relief valves shall be capped.
- (12) All piping shall be well supported and provision made for expansion and contraction.
- (13) All piping shall be done with Schedule 40 black pipe when joints are welded or Schedule 80 black pipe when joints are threaded. An unpainted stainless steel braided flex hose, with Schedule 80 welded fittings, no longer than 30 inches, may be used to provide expansion, contraction, jarring, vibrating, and for settling. In no case shall the angle of the connection exceed ten (10) degrees.
- (14) Brass, copper, or galvanized steel pipe or tubing shall not be used.
- (15) Provisions shall be made to protect all exposed piping by use of guardrails or other types of protective barriers.
- (16) In addition, to the excess flow valves in the liquid and vapor connections of the storage tank and the tank car or truck, an excess flow valve or backflow check valve shall be installed in the piping connecting the storage tank with the tank car or truck, close to the point where the piping and hose are joined.
- (17) "STOP-TANK CAR CONNECTED" signs shall be available and in use when railcars are being unloaded. A sign shall be used at each end of the railcar when the railroad siding opens onto the main line from both directions.
- (18) The area around permanent storage tanks shall be kept free of trash, debris, and vegetation which could be a fire or safety hazard.

- (19) Storage tanks and appurtenances shall be secured to provide reasonable protection against vandalism or unauthorized access which may result in a discharge. Discharge valves on storage tanks shall be locked except when persons responsible for facility security or transfer operations are present. A trained attendant shall make all connections, disconnections, and supervise the transfer of liquids from the time the connections are made until they are disconnected.
  - (20) Each storage tank shall be marked on at least two sides with the words "ANHYDROUS AMMONIA" OR "CAUTION-AMMONIA" in sharply contrasting colors with letters not less than 4 inches high. The inhalation hazard decals on a background of sharply contrasting colors at least two (2) inches high shall be on two (2) sides.
  - (21) Storage tanks shall be located outside of densely populated areas.
  - (22) Storage tanks shall not be located less than 50 feet from any property line upon which a building may be erected.
  - (23) Storage tanks shall not be located less than 600 feet from building, structures, or areas used for activities such as civic, political, religious, recreational, or education purposes, or for involuntary detention of persons.
  - (24) Storage tanks shall not be located less than 1500 feet from hospitals, nursing homes, homes for the aged, or public swimming facilities.
  - (25) Storage tanks shall not be located less than 50 feet from containers of petroleum products.
- (c) **Minimum safety requirements for anhydrous ammonia nurse tanks.** Minimum safety requirements for nurse tanks are as follows:
- (1) Nurse tanks shall be painted white or aluminum.
  - (2) All nurse tanks shall be equipped with both pressure gauge and liquid level gauge. Gauges shall be operative at all times.
  - (3) All ammonia hoses shall be in good condition, approved for anhydrous ammonia, and meet current date specifications.
  - (4) It is a violation for any person to transfer or deliver any anhydrous ammonia into a nurse tank having defects which are plainly apparent.
  - (5) Nurse tanks shall be securely attached to the pulling vehicle and supplemented by two (2) suitably welded safety chains.

- (6) There shall appear on each side and on each end of the nurse tank the words "ANHYDROUS AMMONIA" on a background of sharply contrasting colors at least four (4) inches high. The words are not required on the tank end with valves, fittings, gauges, or appurtenances. In addition, on the rear end of the tank or trailer, there shall be a "Slow Moving Vehicle" sign.
- (7) The name of the owner, place of business, phone number, or contact in case of an emergency shall appear on each side.
- (8) The owner's unique number shall appear as an individual identifying figure on each nurse tank, including single or dual nurse tank setups, in letters and numbers with at least one half (1/2) inch in height and width.
- (9) Vapor valves shall be color coded safety yellow and labeled.
- (10) Liquid valves shall be color coded, safety orange and labeled.
- (11) All pressure relief valves shall be capped.
- (12) Decals depicting step by step ammonia transfer instructions and/or connecting/disconnecting instructions for quick couplers to include first aid procedures to use when contaminated with ammonia shall be on each nurse tank.
- (13) All nurse tank operators shall be furnished with the following by the dealer:
  - (A) One pair of approved flexible fitting, hooded ventilation goggles or full face shield.
  - (B) One pair of approved protective gloves made of rubber or other material impervious to ammonia.
- (14) A minimum five gallon container of water shall be carried on all tanks containing anhydrous ammonia. When the temperature is near freezing or below, five gallons of water shall be carried in the pulling vehicle. The water container shall be filled with clean water before the trailer leaves the storage facility.
- (15) Nurse tanks shall have the 1005 nonflammable gas placard on the sides and ends. The placard is not required on the tank end with valves, fittings, gauges, or appurtenances.
- (16) The inhalation hazard decals on a background of sharply contrasting colors at least two (2) inches high shall be on two (2) sides of the tank.



- (17) A decal showing the maximum pulling speed of 25 M.P.H. shall be on the front of each nurse tank as per the American National Standards Institute, Inc. (ANSI).
- (18) The provisions found in Title 49 CFR § 173.315 (m) (1) and (2) (2010) as promulgated and amended in the Federal Register, are hereby adopted by reference in their entirety.

### **35:30-29-39. Cessation Of Operations And Facility Closure**

- (a) If for any reason a bulk fertilizer storage facility is closed, or operations are discontinued, or by action of the Board it is ordered to cease operations, the owner shall be responsible for proper closure of the facility.
- (b) The owner shall comply with the following closure requirements:
  - (1) Notify the Board in writing that the bulk fertilizer storage facility is being closed or operations discontinued.
  - (2) Remove all fertilizers and rinsates, wash waters, and other materials that contain fertilizers from the facility site and utilize them for the original intended purpose of the product or dispose of them in a manner approved by the Board.
  - (3) Thoroughly clean the liquid storage containers at the facility by double rinsing or the equivalent, as approved by the Board.
  - (4) The dry storage container or building shall be swept clean of all fertilizer and fertilizer containing materials.
  - (5) Inspect and thoroughly clean all areas where fertilizer may be deposited, including but not limited to interiors of walls, holes in the structure or floors, and any other location where fertilizer could be deposited.
  - (6) Empty all bulk anhydrous ammonia tanks and disconnect all lines to ensure the tanks can not be reused.
  - (7) Conduct any soil and water sampling at the facility as required by the Board.
  - (8) Complete any other conditions required by the Board.
- (c) A post closure site facility inspection shall be performed by the Board to verify completion of all closure requirements.
- (d) Based on soil and water sampling and inspections, if any contamination is identified at the facility caused by the storage of fertilizer, the owner shall submit a remediation plan for approval by the Department and shall remediate the site.

## **PART 5. LICENSES AND COMPLAINTS**

### **35:30-29-51. Fertilizer License and Schedule Of Fertilizer Fees**

- (a) Any person engaged in the distribution or sale of fertilizer shall obtain a license.
- (b) The Board shall not issue a fertilizer license to any bulk dry, liquid, or anhydrous ammonia facility unless the following are approved by the Board:
  - (1) Completed fertilizer license application.
  - (2) A completed fertilizer facility application package shall be submitted in a format approved by the Board.
  - (3) Site inspection performed by the Board prior to construction.
  - (4) Final construction of the facility.
  - (5) Completion of all other conditions required by the Board.
- (c) The Board shall not issue and may revoke any fertilizer registration if the Board determines:
  - (1) The nutrient value of the product or substance has inadequate plant food content.
  - (2) The registration is for the primary purpose of disposal of the product or substance.
- (d) Fertilizer license renewal applications received thirty (30) or more days after the renewal date shall result in the Board charging a penalty equal and in addition to the cost of the license.

### **35:30-29-52. Receipt and Resolution of Complaint Against Licensee**

Upon receipt of a written complaint, the Oklahoma Department of Agriculture shall notify the person filing the complaint in writing of its receipt and status within two (2) working days. The person whom the complaint is filed against shall be notified within two (2) working days. Notification that a complaint has been filed may also be given to the landowner or operator when appropriate. The resolution of a complaint is the completion of the appropriate administrative, jurisdictional, and/or legal remedies to the extent possible by the Department. The complainant shall be notified in writing within seven (7) working days after resolution of the complaint.