

1513.0030 DEFINITIONS.

Subpart 1. **Scope.** The definitions in this part apply to this chapter.

Subp. 2. **Alteration.** "Alteration" means a change in an item described in the original manufacturer's data report which affects the pressure-containing capability of the container. Alteration includes rerating a container by increasing maximum allowable working pressure or by increasing or decreasing allowable working temperature.

Subp. 3. **Ammonia or anhydrous ammonia.** "Ammonia" and "anhydrous ammonia" are used interchangeably in this chapter and refer to the compound formed by the chemical combination of the elements nitrogen and hydrogen in the molar proportion of one part nitrogen to three parts hydrogen. This relationship is shown by the chemical formula, NH_3 . On a weight basis, the ratio is 14 parts nitrogen to three parts hydrogen or approximately 82 percent nitrogen to 18 percent hydrogen. Ammonia may exist in either a gaseous or a liquid state. Ammonia does not include aqua ammonia or ammonium hydroxide which are solutions of ammonia in water and are sometimes called "ammonia."

Subp. 4. **Approved.** "Approved" means:

- A. listed by a recognized testing laboratory; or
- B. recommended by the manufacturer as suitable for use with anhydrous ammonia and so marked.

Subp. 5. **Appurtenance.** "Appurtenance" means a device such as a pressure relief device, liquid level gauging device, valve, pressure gauge, pressure regulator, or metering or dispensing device designed to be attached to an ammonia container.

Subp. 6. **API-ASME code.** "API-ASME code" refers to the Code for Unfired Pressure Vessels for Petroleum Liquids and Gases of the American Petroleum Institute and the American Society of Mechanical Engineers (API-ASME). The API-ASME code, as a joint publications and interpretation service, was discontinued as of December 31, 1956, and construction of containers to the API-ASME code has not been authorized after July 1, 1961. The API-ASME code is incorporated by reference. It is not subject to frequent change and is available for reference at the University of Minnesota, Walter Library, 117 Pleasant Street SE., Minneapolis, MN 55455.

Subp. 7. **ASME code.** "ASME code" refers to:

- A. paragraphs U-68, U-69, U-200, or U-201 of Section VIII of the Boiler and Pressure Vessel Code of the American Society of Mechanical Engineers, 1949 Edition; or
- B. Section VIII Division I of the Boiler and Pressure Vessel Code of the American Society of Mechanical Engineers, 1950 Edition, through the current edition including addenda and applicable code case interpretations. The ASME code is

incorporated by reference. It is not subject to frequent change and is available through the Minitex interlibrary loan system.

Subp. 8. **Capacity.** "Capacity" means the total volume of a container measured in standard United States gallons, unless otherwise specified.

Subp. 9. **Cargo tank.** "Cargo tank" means a container designed to be permanently attached to or forming a part of a highway motor vehicle, or a container not permanently attached to a highway motor vehicle, which by reason of the container's size, construction, or attachment to a highway motor vehicle, must be loaded or unloaded without being removed from the highway motor vehicle. Cargo tank does not apply to cylinders, implements of husbandry, or containers normally used for storage.

Subp. 10. **Chemical splash goggles or goggles.** "Chemical splash goggles" or "goggles" means flexible fitting protective eyewear designed to provide primary protection of the eyes and eye sockets from the splash of hazardous liquids and meeting the requirements of ANSI Z87.1, Practice for Occupational and Educational Eye and Face Protection. Chemical splash goggles or goggles does not include direct vented goggles.

Subp. 11. **Commissioner.** "Commissioner" means the commissioner of agriculture or an agent authorized by the commissioner.

Subp. 12. **Container.** "Container" means a tank, except for a cylinder and piping, used for the mobile transportation or storage of anhydrous ammonia.

Subp. 13. **Cylinder.** "Cylinder" means a pressure vessel of 1,000 pounds water capacity or less, constructed according to United States Department of Transportation specifications for cylinders and authorized for the transportation of ammonia. Cylinder does not include a storage tank, cargo tank, portable tank, nurse tank, or tank car.

Subp. 14. **Design pressure.** "Design pressure" has the meaning given to the term "maximum allowable working pressure" in the ASME code.

Subp. 15. **DOT regulations.** "DOT regulations" means the Hazardous Materials Regulations of the Department of Transportation (See the Code of Federal Regulations, title 49, parts 100 to 199, Transportation, including "Specifications for Shipping Containers.") The DOT regulations are incorporated by reference. They are not subject to frequent change and are available through the Minitex interlibrary loan system.

Subp. 16. **Emergency shower.** "Emergency shower" means a shower unit permanently connected to a source of clean water that enables the user to have water cascading over the entire body and that otherwise meets the requirements of ANSI Z358.1, Emergency Eyewash and Shower Equipment.

Subp. 17. **Eye wash unit.** "Eye wash unit" means a device used to irrigate and flush the eyes with clean water. Depending upon the requirements in this chapter, the device

may be a plumbed unit, permanently connected to a source of clean water, or it may be a self-contained unit, not permanently installed which must be refilled or replaced after use. An eye wash unit must meet the requirements of ANSI Z358.1, Emergency Eyewash and Shower Equipment.

Subp. 18. **Filling density.** "Filling density" means the percent ratio of the weight of the ammonia permitted in a container to the weight of water at 60 degrees Fahrenheit that the container will hold when full. One pound of water equals 27.74 cubic inches at 60 degrees Fahrenheit. For determining the water capacity of the tank in pounds, the weight of one gallon of water at 60 degrees Fahrenheit (15.6 degrees centigrade) in air is 8.328 pounds.

Subp. 19. **Full face shield.** "Full face shield" means a device meeting the requirements of ANSI Z87.1, Practice for Occupational and Educational Eye and Face Protection, designed to provide protection to all of the face from hazard. A full face shield may only be worn as secondary eye protection, supplementing the primary eye protection afforded by chemical splash goggles.

Subp. 20. **Gas mask.** "Gas mask" means an air-purifying device with a full face piece approved by NIOSH/MSHA under Code of Federal Regulations, title 30, part II, subpart I, for use in an ammonia contaminated atmosphere in compliance with Code of Federal Regulations, title 29, part 1910.134.

Subp. 21. **Hydrostatic relief valve.** "Hydrostatic relief valve" means a pressure relief device for liquid service designed to prevent excessive pressure due to thermal expansion when a pipe or hose is filled with liquid such as between block valves or blinds.

Subp. 22. **IDLH.** An atmosphere is "IDLH" if it poses an immediate hazard to life or produces irreversible debilitating effects on health. The IDLH for ammonia is 300 ppm by volume.

Subp. 23. **Implement of husbandry.** "Implement of husbandry" means a system, including a nurse tank, with a capacity of 3,000 gallons (11.35m³) or less, or an applicator tank, used for transporting and applying anhydrous ammonia exclusively for agricultural purposes.

Subp. 24. **Loading.** "Loading" means the flow of ammonia from a container, such as a tank car or cargo tank, into a fixed storage tank.

Subp. 25. **National Board Inspection Code.** "National Board Inspection Code" refers to the manual published by the National Board of Boiler and Pressure Vessel Inspectors which provides the rules and guidelines for inspection by a commissioned inspector of the repair, alteration, and rerating of ASME code containers after being placed into service.

Subp. 26. **Permanent storage installation.** "Permanent storage installation" means a system employing a stationary, fixed, container used exclusively for storage or supply.

Subp. 27. **Positive pressure self-contained breathing apparatus.** "Positive pressure self-contained breathing apparatus" means a full face piece respirator approved by NIOSH/MSHA for respiratory protection for both entry into or escape from oxygen-deficient atmospheres or concentration of gases, or vapors which are immediately dangerous to life or health where the supply of air is carried by the wearer. The air pressure inside the face piece is positive in relation to the air pressure of the outside atmosphere during exhalation and inhalation.

Subp. 28. **Pressure relief valve.** "Pressure relief valve" means a device designed to open to prevent an increase in internal fluid pressure in excess of a specified value due to an emergency or abnormal condition, and to close and prevent further flow after normal conditions have been restored.

Subp. 29. **Psig and psia.** "Psig" and "psia" refer to pounds per square inch gauge and pounds per square inch absolute, respectively.

Subp. 30. **Repair.** "Repair" means the work necessary to restore a container or system to a safe and satisfactory operating condition, provided that in all cases the container or system design must continue to comply with this chapter or the standard in effect at the time of installation. In addition, the original design of the container or system must not be altered by the repair. Repair of a pressure container must be performed in compliance with the applicable provisions of the current edition of the National Board Inspection Code and must conform to the ASME code section and edition to which the container was constructed. Welding repair of piping must be done by a welder certified in accordance with the ASME code, Section IX, "Welding Qualifications."

Subp. 31. **Short-term exposure limit or STEL.** "Short-term exposure limit" or "STEL" means a 15-minute time-weighted average exposure to an air contaminant which should not be exceeded at any time during a work day and which should not be repeated more than four times a day. Exposures at the short-term exposure limit should not occur at less than 60-minute intervals.

Subp. 32. **System.** "System" refers to an assembly of equipment consisting of the container or containers, hoses, appurtenances, pumps, compressors, and the ammonia storage connector.

Subp. 33. **Transfer, fill, and charge.** "Transfer," "fill," and "charge" may be used interchangeably and mean movement of a quantity of ammonia from one container to another container or cylinder, as contrasted to feeding ammonia to a use or application device.

Subp. 34. **Unloading.** "Unloading" means the flow of ammonia from a fixed storage tank into another container, such as a cargo tank or a nurse tank.

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