

4717.2630 USE OF GAS CHLORINE.

Subpart 1. **General.** The standards in this part apply when compressed gas chlorine is used. The gas chlorine and chlorinating equipment must be in:

- A. a separate, mechanically ventilated room; or
- B. a secure reach-in enclosure.

Subp. 2. **Rooms.** When a room is used, it must comply with the provisions in this subpart.

- A. The room must be above grade.
- B. A shatter resistant inspection window must be installed in an interior wall or the door.

- C. The room must have a ventilating fan with a capacity to provide one complete air change per minute when the room is occupied.

- D. Separate switches for the fan and lights must be located outside the room. Outside switches must be protected from vandalism. A signal light indicating fan operation must be provided at each entrance when the fan can be controlled from more than one point.

- E. The ventilating fan must take suction near the floor as far as practical from the door and air inlet, with the point of discharge located so as not to contaminate air inlets to any rooms or structures.

- F. Air inlets must be through louvers or other ventilation openings near the ceiling.

- G. When present, floor drains must discharge to the outside of the building and must not be connected to other internal or external drainage systems.

Subp. 3. **Reach-in enclosures.** Reach-in enclosures must be:

- A. not over two feet in depth;
- B. vandal resistant; and
- C. naturally ventilated by means of openings in the upper and lower parts of the enclosure.

Subp. 4. **Doors.** The door of a room or enclosure must be labeled "DANGER - GAS CHLORINE" in letters at least four inches high.

Subp. 5. **Seals.** All openings between a chlorine room or enclosure and other enclosed space must be sealed.

Subp. 6. **Venting.** Vents from feeders and storage rooms or enclosures must discharge to the outside atmosphere, above grade.

Subp. 7. **Chlorinating equipment.** Chlorinating equipment must be capable of withstanding wear without developing leaks.

- A. All chlorine cylinders must be anchored to prevent falling over.
- B. A valve stem wrench must be maintained on the chlorine cylinder so the supply can be shut off quickly in an emergency.
- C. The valve protection hood must be kept in place except when the cylinder is connected to the system.
- D. The chlorine feeding device must be designed so that during accidents or interruptions of the water supply, leaking chlorine gas is conducted to the out-of-doors.
- E. The chlorinator must be a vacuum-operated solution-feed type, capable of delivering chlorine at its maximum rate without releasing chlorine gas to the atmosphere.
- F. Pressurized chlorine feedlines must not carry chlorine gas beyond the chlorinating room.
- G. Chlorinators must be designed to prevent the backflow of water into the chlorine solution container.

Subp. 8. **Respiratory protection equipment.** Respiratory protection equipment, meeting the requirements of the National Institute for Occupational Safety and Health (NIOSH) or the United States Bureau of Mines for chlorine use must be available where chlorine gas is handled. The respiratory protection equipment must be stored at a convenient location, in a closed cabinet accessible without a key, but not inside any room where chlorine is used or stored.

- A. The respirators must use compressed air, have at least a 30-minute capacity, and be compatible with or exactly the same as the respirators used by the fire or emergency rescue department responsible for the pool facility, or be a canister type gas mask with full face mask and replacement canisters provided.
- B. A record of use and inspection must be kept to ensure that the respirators will be serviceable when needed.

Subp. 9. **Chlorine leak detection.** A bottle of ammonium hydroxide, 56 percent ammonia solution, or a comparable solution recommended by the chlorine supplier, must be available for chlorine leak detection.

- A. Where ton chlorine containers are used, an emergency leak repair kit recommended by the Chlorine Institute, Inc., 2001 "L" Street NW, Washington, D.C. 20036, must be provided.
- B. Where an automatic leak detector is provided, it must be equipped with both an audible alarm and a visual warning sign.

Subp. 10. **Trained personnel.** Installation of chlorinator equipment and its operation must be carried on by and under the supervision of personnel trained by the manufacturer or supplier for the installation and operation of such equipment.

Statutory Authority: *MS s 144.05; 144.12; 144.123; 145A.02; 157.01*

History: *19 SR 1419; 19 SR 1637*

Published Electronically: *May 11, 2009*