§ 193.15–16  Lockout valves.
(a) A lockout valve must be provided on any carbon dioxide extinguishing system protecting a space over 6,000 cubic feet in volume and installed or altered after [July 9, 2013. “Altered” means modified or refurbished beyond the maintenance required by the manufacturer’s design, installation, operation and maintenance manual.
(b) The lockout valve must be a manually operated valve located in the discharge manifold prior to the stop valve or selector valves. When in the closed position, the lockout valve must provide complete isolation of the system from the protected space or spaces, making it impossible for carbon dioxide to discharge in the event of equipment failure during maintenance.
(c) The lockout valve design or locking mechanism must make it obvious whether the valve is open or closed.
(d) A valve is considered a lockout valve if it has a hasp or other means of attachment to which, or through which, a lock can be affixed, or it has a locking mechanism built into it.
(e) The master or person-in-charge must ensure that the valve is locked open at all times, except while maintenance is being performed on the extinguishing system, when the valve must be locked in the closed position.
(f) Lockout valves added to existing systems must be approved by the Commandant as part of the installed system.

§ 193.15–17  Odorizing units.
Each carbon dioxide extinguishing system installed or altered after July 9, 2013, must have an approved odorizing unit to produce the scent of wintergreen, the detection of which will serve as an indication that carbon dioxide gas is present in a protected area and any other area into which the carbon dioxide may migrate. “Altered” means modified or refurbished beyond the maintenance required by the manufacturer’s design, installation, operation and maintenance manual.

§ 193.15–20  Carbon dioxide storage.
(a) Except as provided in paragraph (b) of this section, the cylinders shall be located outside the spaces protected, and shall not be located in any space that might be cut off or made inaccessible in the event of a fire in any of the spaces protected.