22.15.2.2* Waste and Linen Chutes and Transport Systems. [82:5]

22.15.2.2.1 Gravity Waste or Linen Chutes. [82:5.2]

22.15.2.2.1.1 Gravity chutes shall be protected internally by automatic sprinklers unless they are lined in accordance with 5.2.2.6.1 in NFPA 82. [82:5.2.2.6.2; 82:5.2.6.1.1]

22.15.2.2.1.2 This protection requires that a sprinkler be installed at or above the top service opening of the chute. [82:5.2.6.1.2]

22.15.2.2.1.3 Chute Sprinkler Protection. Automatic sprinklers installed in gravity chute service openings shall be recessed out of the chute area through which the material travels. [82:5.2.6.1.3]

22.15.2.2.1.4 In addition, a sprinkler shall be installed within the chute at alternate floor levels in buildings over two stories in height, with a mandatory sprinkler located at the lowest service level. [82:5.2.6.1.4]

22.15.2.2.1.5 Chute Room Automatic Sprinklers. Automatic sprinklers shall be installed in chute terminal rooms. [82:5.2.6.2.1]

22.15.2.2.2 Full Pneumatic Waste and Linen Conveying Systems. [82:5.3]

22.15.2.2.2.1 Full pneumatic-type risers shall be protected internally by automatic sprinklers. [82:5.3.4.1]

22.15.2.2.2.2 A sprinkler shall be required at or above the top loading station and at alternate floor levels in buildings over two stories in height, with a mandatory sprinkler located at the lowest loading station. [82:5.3.4.2]

22.15.2.2.2.3 Sprinklers shall be recessed out of the station area through which the material travels. [82:5.3.4.3]

22.15.2.2.3 Gravity Pneumatic Trash or Linen Conveying Systems. [82:5.4]

22.15.2.2.3.1 Chute Automatic Sprinklers. Where material is to be stored at the bottom of the chute and above the riser discharge damper (above the transport tee), automatic sprinklers shall be installed below the last service door on the chute. [82:5.4.2.3]

22.15.2.2.3.2 Automatic sprinklers shall be installed in chute discharge rooms. [82:5.4.2.4.3]

22.15.2.3 Waste Handling Systems.

22.15.2.3.1 Automatic sprinklers shall be installed in rooms where waste handling systems and equipment are used to transport waste from interim storage areas to waste processing equipment, such as incinerators. [82:6.4.1]

22.15.2.3.2 In locations or rooms where waste handling systems and equipment are used for interim storage of waste only, the rooms shall be sprinklered in accordance with requirements specified in 22.15.2.4. [82:6.4.2]

22.15.2.4 Waste Compactors. [82:7]

22.15.2.4.1 All chute-fed compactors shall have an automatic sprinkler with a minimum 13 mm (½ in.) orifice installed in the hopper of the compactor. [82:7.2.1]

22.15.2.4.2 Sprinklers shall be ordinary temperature-rated sprinklers. [82:7.2.1.1]

22.15.2.4.3 Sprinklers shall be supplied by a minimum of 1 in. (25.4 mm) ferrous piping or ¾ in. (19 mm) copper tubing line from the domestic cold water supply or by the building fire sprinkler system. [82:7.2.1.2]

22.15.2.4.4 Sprinkler water pipe shall be protected from freezing in outdoor installations. [82:7.2.1.3]

22.15.2.4.5 Hand-fed compactors located within a building and not operated in conjunction with a chute shall not require installation of an automatic sprinkler in the hopper. [82:7.2.2]

22.15.2.5 Waste and recyclables storage rooms shall be provided with automatic sprinklers. [82:8.3]

22.15.2.6 Rooms in which waste processing equipment is located shall be installed with automatic sprinklers. [82:9.4.1]

22.16 Standard for Ovens and Furnaces.

22.16.1 Design Requirements. (Reserved)

22.16.2 Installation Requirements.

22.16.2.1* Where automatic sprinklers are provided, they shall be installed in accordance with NFPA 13, unless otherwise permitted by 22.16.2.2. [86:9.2.1]

22.16.2.2 Where sprinklers that protect only ovens are installed and connection to a reliable fire protection water supply is not feasible, a domestic water supply connection shall be permitted to supply these sprinklers subject to the approval of the authority having jurisdiction. [86:9.2.2]

22.16.2.3 Where sprinklers are selected for the protection of ovens, furnaces, or related equipment, the use of closed-head sprinkler systems shall be prohibited and only deluge sprinkler systems shall be used where the following conditions exist:

(1) In equipment where temperatures can exceed 625°F (329°C)
(2) Where flash fire conditions can occur

[86:9.3.3]

22.16.2.4 Furnaces shall be located so as to minimize exposure to power equipment, process equipment, and sprinkler risers. [86:5.1.3.1]

22.16.2.5 Where water from a fixed protection system could come in contact with molten materials, such as molten salt or molten metal, shielding shall be provided to prevent water from contacting the molten material. [86:9.3.1]

22.16.2.6* Galvanized pipe shall not be used in sprinkler or water spray systems in ovens, furnaces, or related equipment. [86:9.3.2]

22.17 Health Care Facilities Code, Hyperbaric Chambers.

22.17.1 Design Requirements.

22.17.1.1 A fixed water deluge extinguishing system shall be installed in all chamber compartments that are designed for manned operations. [99:14.2.5.2]

22.17.1.2 In chambers that consist of more than one chamber compartment (lock), the design of the deluge system shall meet the requirements of 22.17.1.1 when the chamber compartments are at different depths (pressures). [99:14.2.5.2.1]

22.17.1.3 The deluge system in different compartments (locks) shall operate independently or simultaneously. [99:14.2.5.2.2]

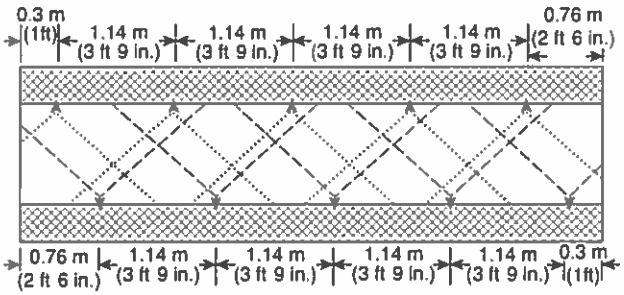

FIGURE A.22.7.1.10(a) Nozzle Layout for Typical Vault. [40:Figure A.6.5.6.6(a)]

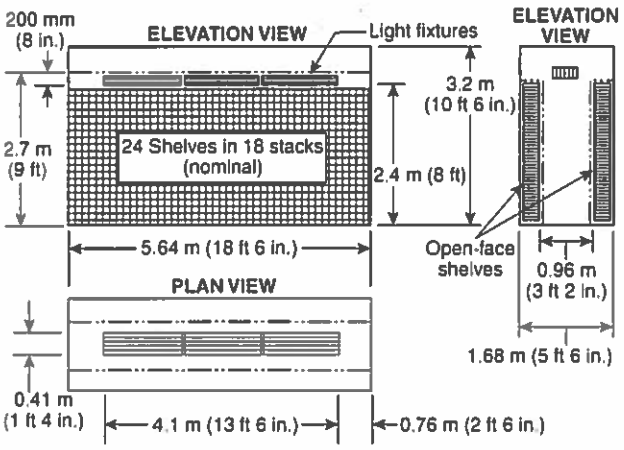

FIGURE A.22.7.1.10(b) Typical Vault Layout. [40:Figure A.6.5.6.6(b)]

sprinkler system will provide adequate time for operators to shut down the power by use of the electrical disconnecting means as prescribed in Section 10.4 of NFPA 75. In other instances where a fire can operate sprinkler heads before discovery by personnel, a method of automatic detection should be provided to automatically de-energize the electronic equipment as quickly as possible.

To minimize damage to electronic computer equipment located in sprinkler-protected areas, it is important that power be off prior to the application of water on the fire. [75: A.8.1.2]

A.22.14.2.3 The use of carbon dioxide systems for the protection of spaces beneath raised floors is discussed in Section B.5 of NFPA 12, wherein it is pointed out that the design of such systems requires compensation for leakage and provision for a soft discharge to minimize turbulence and agent loss through perforated tiles. These same concerns exist for other inert gas clean agent systems installed in accordance with NFPA 2001. Since these spaces are usually of a very limited height, this type of fire suppression system may be easier to design and install than sprinklers. [75: A.8.1.1.2]

A.22.15.2.2 See Figure A.22.15.2.2(a) through Figure A.22.15.2.2(h).

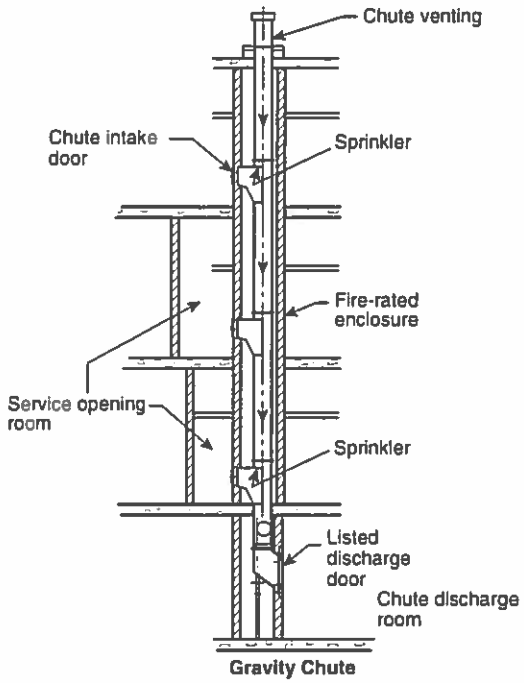

FIGURE A.22.15.2.2(a) Gravity Linen Chute. [82:Figure A.5.2(a)]

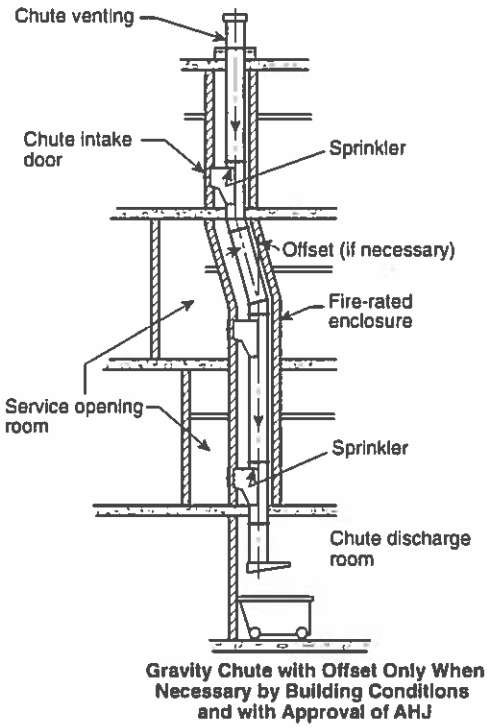

FIGURE A.22.15.2.2(b) Gravity Waste Chute. [82:Figure A.5.2(b)]