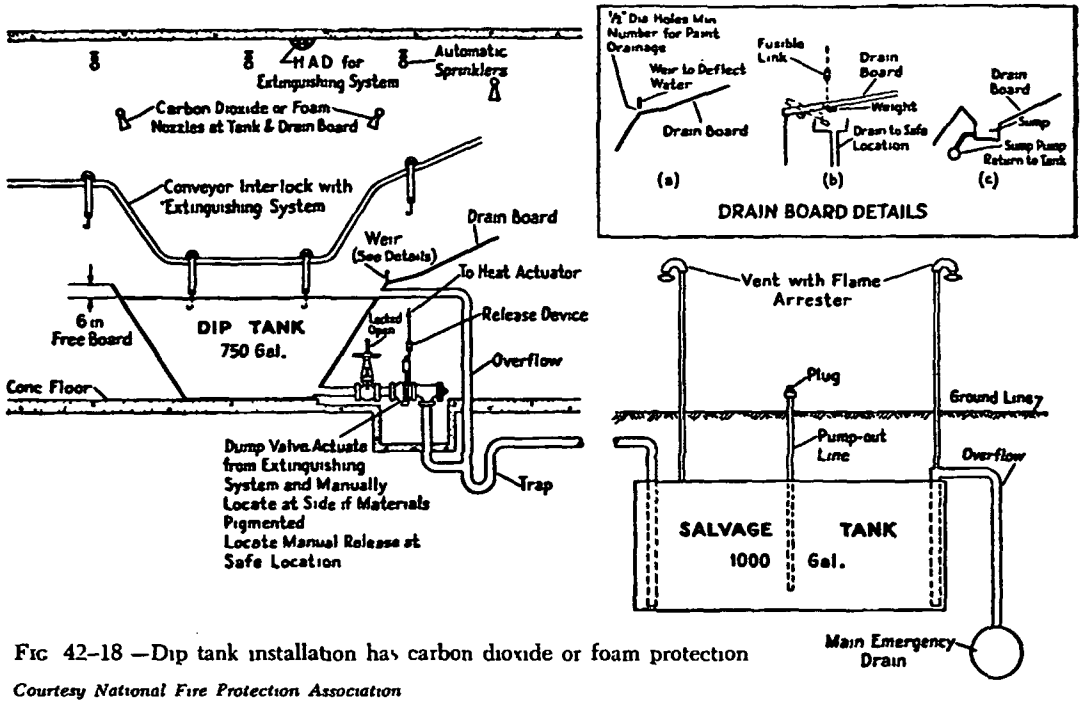

FIG 42–18 —Dip tank installation has carbon dioxide or foam protection

Courtesy National Fire Protection Association

equipment which use flammable liquids and the precautions applying to each

Dip tanks

Dip tanks containing flammable liquids, subject to ignition at ordinary temperatures and giving off flammable vapors, present a severe fire and explosion hazard (See NFPA Standard No 34, *Dip Tanks Containing Flammable or Combustible Liquids*)

Dipping operations should be conducted above grade in a detached one-story building of noncombustible construction or in a cutoff one-story section in as large a room as possible, adequately ventilated, away from sources of ignition, and conspicuously marked as a flammable liquid area

Handling of flammable liquids in open containers can be hazardous and should be avoided The openings should be as small as possible and a cover should be provided The cover should be hinged and gravity closing or should slide on tracks and be held open by a fusible link or other heat-actuated device (Fig 42–17)

The NFPA states, "Mechanical ventilation shall be provided, and the ventilating system arranged to move air from all directions toward the vapor area origin and thence to a safe outside location The ventilating system shall be so arranged that the failure of any ventilating fan shall automatically stop any dipping conveyor system"

Tanks with capacities over 500 gal should have bottom drains unless the viscosity of the liquids they contain makes this requirement impractical

Overflow pipes should be used to carry off any overflow liquids to a safe place, preferably outside the building Tanks should also be protected by automatic fire extinguishing systems (Fig 42–18)

Japanning and drying ovens

Ovens used for evaporating varnish, japan enamel, and other flammable liquids can present serious fire and explosion hazards and should have ample provision for ventilation and explosion venting

Drying ovens are of two types the box oven