steam (5 psi or less) or hot water pipes only for heating the hoistway and the machine room (or penthouse) are permitted

The entire conduit system should be effectively grounded All electrical installations, including grounding, should conform to the *National Electrical Code* °

Pits To protect persons working in elevator pits, a minimum clearance of 2 ft is necessary between the lowest projection on the underside of the car platform (not including guide shoes and aprons attached to the sill) and any obstruction in the pit (exclusive of compensating devices, buffers, buffer supports, and similar devices) Measurements should be made when the car is resting on fully compressed buffers

Counterweight runways should be enclosed from a point 1 ft above the pit floor to a point at least 7 ft above the pit floor and adjacent pit floors, except where compensating chains or cables are used The 1-ft space at the bottom is necessary to permit checking the clearance between the counterweight and the floor when the car is at the upper limit of travel

Screen partitions at least 7 ft high between adjacent pits will protect men in one pit against cars and counterweights in adjacent pits, and will protect employees from hazards when adjacent pits are at different levels

An elevator pit should never be used as a thoroughfare or storage space It should be fully enclosed and entrances kept locked A drain should be provided for removal of water

Pits should be kept clean and free of debris Rubbish never should be swept into pits

Machine rooms should have safe and convenient access, as specified in the Elevator Code So that persons repairing or inspecting elevator hoisting machinery have sufficient room and are safe, there should be at least 7 ft of headroom between the machinery platform and the machine room roof

Like pits, elevator machine rooms should never be used as thoroughfares The one exception would be if the elevator equipment were in a separate locked enclosure Rooms should be well ventilated and lighted with not less than 10 foot-candles at floor level Doors should be kept locked to prevent entry of unauthorized persons

Machine rooms should be kept clean and should not be used for storage Small quantities of ordinary maintenance supplies should be placed in a wall cabinet A portable carbon dioxide or dry-powder fire extinguisher should be kept within reach of someone standing at the door

Overhead protection If the elevator machine is located in the penthouse, a substantial grating or floor of fire-resistant construction should be provided under the machine For detailed information concerning construction, the Elevator Code should be consulted

On all overhead machine installations there should be a cradle below the secondary sheaves if they extend below the floor or grating

No elevator machinery except the idler or deflecting sheaves should be hung underneath the supporting beams at the top of the hoistway When the governor or other devices (other than terminal stopping switches) must be installed below the machine floor, they should be set on a substantial secondary floor

For winding-drum machines, a substantial beam or bar should be placed at the top of the counterweight guiderails and beneath the counterweight sheaves to prevent the counterweights from being drawn into the sheaves

Landings and doors

The Elevator Code specifies that hoistway landing openings of all power-driven elevators must be provided with hoistway doors that guard the full height and width of the openings

Hoistway doors for passenger elevators Records show that most elevator accidents occur at the hoistway door and are divided almost equally between "caught and crushed" and "falls down hoistway" Interlocks of approved types properly installed and maintained will eliminate practically all such accidents

Many serious accidents and fatalities

°National Fire Protection Association, 60 Batterymarch St., Boston. *National Electrical Code* Standard No. 70 (ASA C1).