



STATE OF NEW JERSEY

DEPARTMENT OF LABOR

JOHN J. TOOHEY, Jr., Commissioner of Labor

STANDARD SPECIFICATIONS FOR ELEVATORS LOCATED IN FACTORY BUILDINGS

Every elevator located in any factory, workshop, mill or place where the manufacture of goods of any kind is carried on shall conform in every respect to the specifications and requirements hereafter named.

Before any elevator shall be hereafter installed in any such building, or before any elevator now in use in any such building shall be altered, the owner of such building shall, either by himself or his agent or architect, submit to the Commissioner of Labor, for his approval, plans or specifications in duplicate, which plans shall show the type of construction of car enclosures and gates to be used for such elevator, together with the location of gates in connection with the elevator shaft.

No elevator hereafter installed in any such building or no elevator now in use in any such building which shall be hereafter altered in any particular covered by the provisions of this act shall be put into service until a certificate has been obtained therefor, which certificate shall be signed by the Commissioner of Labor, and shall recite the fact that such elevator complies in all respects with the requirements of this act.

SIGNS.—Such elevator shall have fastened in a conspicuous place therein a metal plate having suitable raised letters on same, which shall designate the number of pounds weight said elevator is constructed to safely carry. Such sign shall be of such character and shall be so placed as to be easily read from any part of such elevator.

CAR ENCLOSURES.—All elevator cars, except door openings, shall be suitably enclosed with substantial material to a height of at least six feet and the construction properly braced. If enclosed with wood, the same shall be not less than seven-eighths of an inch in thickness, and said enclosure shall be of a solid construction to a height of at least four feet from the floor of the car. Construction extending higher than the solid enclosure shall have material that will not have more than one inch open space between members of same, and shall be protected at the top by an angle iron or bar iron brace rail. Carriage elevators of the four-corner lift type shall be limited to a one-story lift, and the counterweights in connection with same must be enclosed on the shaft. No enclosure for car platforms of the type of elevator last mentioned shall be required.

FLOOR CONSTRUCTION.—There shall be not more than one and one-quarter inches space between the floor of the car and the floor saddles, and where the saddles project in the shaft, the same shall be properly beveled or protected on the under side. The under side of the car must be of incombustible materials.

LIFTING CABLES.—Lifting and weight cables shall have at least one full turn of the cable on the drum when they have reached the limit of travel. Where overhead machines are installed, the use of equalizer arms and counterweights on the car will be permitted. Every elevator shall have not less than two lifting cables independently connected with the car and to each set of counterweights; provided, however, in case of any elevator now in use in any such building the Commissioner of Labor may permit the installation of an effective safety device in lieu of the two independent lifting cables when, in judgment of said commissioner it would be impossible to provide two independent lifting cables for such elevator without unreasonable expense. This section shall not apply to hand-power elevators.

COUNTERWEIGHTS.—All counterweights shall have their sections strongly bolted together, and shall be so constructed that they cannot fall on any part of the elevator or machinery. If counterweights run in the same shaft as the car, they shall be protected with a substantial screen of iron, which shall extend from the top grating in the shaft to a point at least five feet below such grating, and with a like screen, which shall extend from the bottom of the shaft upward for at least ten feet.

GRATING.—Immediately under the sheaves at the top of every elevator shaft there shall be provided and securely fastened to the shaft a substantial grating of iron or steel having not more than one and one-half inches space between any two members, except at the spaces necessary to be provided for cable to pass through.

CLEARANCE, TOP AND BOTTOM OF SHAFT.—There shall be not less than three feet clearance between the top of each counterweight and the under side of overhead beams when the car is resting on the bumpers. A clear space of not less than three feet must be provided between the bottom of the shaft and lowest point of the under side of the car floor when the car is at its lowest landing, and between the top of crosshead of the car and the under side of the overhead grating when the car is at its top landing. In case, in the opinion of the Commissioner of Labor, it shall be impossible, without unreasonable expenditure, to make any elevator now in use in such building comply with any or all of the requirements of this section, such requirements may be dispensed with by said commissioner.

MACHINERY PROTECTION.—All parts of the elevator machinery shall be properly enclosed by suitable partitions of incombustible materials, and such enclosures must be lighted, except in the case of machines suspended from ceiling, and in such case machines so suspended shall be protected by platforms under same, composed of incombustible material. Free and safe access must be provided to all parts of elevator machinery.

COVERING OF CARS.—All elevators shall have a covering on the top of the car of expanded metal or wire mesh of sufficient thickness and spaced not more than two-inch centers.

CARRYING BEAMS.—The carrying of sheave beams for all machinery shall be of wrought iron or steel.

SAFETY LOCKS.—All elevators operated by hand rope shall be equipped with safety cable locks on each floor.

TRAP DOORS IN CARS.—All elevators shall have a trap door in top of car of such size as to afford an easy egress for passengers, or, where two cars are in the same shaft, such means of egress may be provided in the side of the car.

GATES.—All gates at entrance to elevator shafts shall be semi-automatic or automatic in their action. Every such gate shall be not less than five feet six inches in height, unless such gate is placed at a distance of at least twelve inches from the car running line, in which case such gate shall be at least three feet six inches in height. All gates must extend to a distance of not more than ten inches from the floor. All semi-automatic or automatic gates shall be constructed in a substantial manner, providing either solid or open construction. If open construction is adopted, not more than two inches between any member shall be permitted. All gates shall run in grooves, and shall have at least one inch bearing in each groove and a clearance of not less than one-quarter of an inch provided on both sides of gate. All counterweights for gates shall be enclosed by a pipe well or an enclosure equally as good, which must be approved by the Commissioner of Labor. Gates exceeding three feet six inches in width shall contain top and center re-enforcement braces. All anchors, brackets and connections for grooves and gates shall be of wrought or malleable iron. Substantial chains or cables connecting gates with counterweights must be provided and securely fastened to same. Pulleys for chains or cables shall be recessed sufficiently to allow said chain or cables used to set safely in same, and provided with wrought iron, U-shaped or similar protections, to prevent same from slipping off the pulleys. Pulleys shall be securely bolted to wall. Gates shall be constructed of wood or of any other material approved by the Commissioner of Labor. All elevators having shaft gates less than five feet six inches in height shall be equipped with tell-tale chains, fastened to the bottom of the car, not less than four feet in length and spaced not more than six-inch centers. All doors or gates leading in any passenger elevator shaft shall be opened only from the shaft side, so as to be controlled only by the operator of the car, and said shaft doors or gates shall be closed immediately the car is put in motion.

LOCKING DEVICE.—All cars not operated by a permanent attendant shall be equipped with an approved locking device.