



Ohio Revised Code

Section 1567.45 Limitation on number of persons in cage or elevator - hoisting equipment safety examination.

Effective: June 14, 2000

Legislation: House Bill 601 - 123rd General Assembly

(A) When more than the lawful number of persons get on a cage or elevator to be lowered into a mine, or to be hoisted out of a mine, the person in charge of the lowering or hoisting of such persons shall order a sufficient number to get off such cage or elevator to comply with section 1567.49 of the Revised Code, and shall not lower or raise the cage until such order is complied with.

(B) Every hoist used to transport persons at a coal mine shall be equipped with overspeed, overwind, and automatic stop controls. Every hoist-handling platform, cage, or other device used to transport persons shall be equipped with brakes capable of stopping the fully loaded platform, cage, or other device; with hoisting cable adequately strong to sustain the fully loaded platform, cage, or other device; and have a proper margin of safety. Cages, platforms, or other devices that are used to transport persons in shafts and slopes shall be equipped with safety catches or other no less effective devices approved by the chief of the division of mineral resources management that act quickly and effectively in an emergency, and such catches shall be tested at least once every two months. Hoisting equipment, including automatic elevators, that is used to transport persons shall be examined daily. Where persons are transported into or out of a coal mine by hoists, a qualified hoisting engineer shall be on duty while any person is underground, except that no such engineer is necessary for automatically operated cages, platforms, or elevators. Brakes on hoists used to transport persons shall be capable of stopping and holding the fully loaded platform, cage, or other device at any point in the shaft, slope, or incline.

(C) All hoisting equipment at a mine, including automatic elevators, safety catches, and other devices approved by the chief, shall be examined daily, and the examination shall include, but not be limited to, the following:

(1) A visual examination of the rope for wear, broken wires, and corrosion, especially at excessive strain points, such as near the attachments, where the rope rests on the sheaves and where the rope leaves the drum at both ends;



- (2) An examination of the rope fastenings for defects;
- (3) An examination of safety catches;
- (4) An examination of the cage, platforms, elevators, or other devices for loose, missing, or defective parts;
- (5) An examination of the head sheaves to check for broken flanges, defective bearings, rope alignment, and proper lubrication;
- (6) An observation of the lining and all other equipment and appurtenances installed in the shaft.

A log or record of each daily examination of hoisting equipment shall be kept, listing each item examined. Each daily entry shall be signed by the person or persons making the examination. The reports of the examinations shall be read and countersigned by a responsible company official daily.

(D) Hoists shall have rated capacities consistent with the loads handled and the recommended safety factors of the ropes used. An accurate and reliable indicator of the position of the cage, platform, skip, bucket, or cars shall be provided, and shall be placed so that it is in clear view of the hoisting engineer and shall be checked daily to determine its accuracy. The American national standards institute "specifications for the use of wire ropes for mines," M11.1-1960, or the latest revision thereof, shall be used as a guide in the use, selection, installation, and maintenance of wire ropes used for hoisting. Alterations or changes in a hoist that affect the rated capacity shall be made only with the approval of the chief.

(E) There shall be at least two effective methods approved by the chief of signaling between each of the shaft stations and the hoist room, one of which shall be a telephone or speaking tube. One of the methods used to communicate between shaft stations and the hoist room shall give signals that can be heard by the hoisting engineer at all times while workers are underground. Signaling systems used for communication between shaft stations and the hoist room shall be tested daily. Other safeguards adequate, in the judgment of the chief or a deputy mine inspector, to minimize hazards with respect to transportation of workers and materials shall be provided. Divisions (E)(1), (2), and



(3) of this section set forth the criteria by which the chief or a deputy mine inspector shall be guided in requiring other safeguards on a mine-by-mine basis. The chief or deputy mine inspector shall notify the operator in writing of any additional specific safeguard the chief or deputy mine inspector requires and shall fix a time in which the operator shall comply. If the safeguard is not provided within the time fixed and if it is not maintained thereafter, a notice of violation shall be issued to the operator.

(1) Hoists and elevators used to transport materials shall be equipped with brakes capable of stopping and holding the fully loaded platform, cage, skip, car, or other device at any point in the shaft, slope, or incline.

(2) The clutch of a free-drum on a worker hoist shall be provided with a locking mechanism or interlocked with the brake to prevent the accidental withdrawal of the clutch. The hoist rope attached to a cage, worker car, or trip shall be equipped with two bridle chains or cables connected securely to the rope at least three feet above the attaching device and to the cross-piece of the cage, worker car, or trip. The hoist rope shall have at least three full turns on the drum when extended to its maximum working length and shall make at least one full turn on the drum shaft or around the spoke of the drum in the case of a free drum, and be fastened securely. Cages used for hoisting workers shall be constructed with the sides enclosed to a height of at least six feet and shall have gates, safety chains, or bars across the ends of the cage when workers are being hoisted or lowered. Self-dumping cages, platforms, or other devices used for transportation of workers shall have a locking device to prevent tilting when workers are transported thereon. An attendant shall be on duty at the surface when workers are being hoisted or lowered at the beginning and end of each operating shift. Precautions shall be taken to protect persons working in shaft sumps. Workers shall wear safety belts while doing work in or over shafts.

(3) The doors of automatic elevators shall be equipped with interlocking switches so arranged that the elevator car will be immovable while any door is opened or unlocked, and arranged so that such door or doors cannot be inadvertently opened when the elevator car is not at a landing. A "stop" switch shall be provided in the automatic elevator compartment that will permit the elevator to be stopped at any location in the shaft. A slack cable device shall be used where appropriate on automatic elevators that will automatically shut off the power and apply the brakes in the event the elevator is obstructed while descending. Each automatic elevator shall be provided with a telephone



AUTHENTICATED,
OHIO LEGISLATIVE SERVICE
COMMISSION
DOCUMENT #258561

or other effective communication system by which aid or assistance can be obtained promptly.

No person shall refuse or neglect to comply with this section.