### Mine Safety and Health Admin., Labor

# \$57.19073 Hoisting during shift changes.

Rock or supplies shall not be hoisted in the same shaft as persons during shift changes, unless the compartments and dumping bins are partitioned to prevent spillage into the cage compartment.

# § 57.19074 Riding the bail, rim, bonnet, or crosshead.

Persons shall not ride the bail, rim, bonnet, or crosshead of any shaft conveyance except when necessary for inspection and maintenance, and then only when suitable protection for persons is provided.

#### § 57.19075 Use of open hooks.

Open hooks shall not be used to hoist buckets or other conveyances.

# § 57.19076 Maximum speeds for hoisting persons in buckets.

When persons are hoisted in buckets, speeds shall not exceed 500 feet per minute and shall not exceed 200 feet per minute when within 100 feet of the intended station.

#### § 57.19077 Lowering buckets.

Buckets shall be stopped about 15 feet from the shaft bottom to await a signal from one of the crew on the bottom for further lowering.

### § 57.19078 Hoisting buckets from the shaft bottom.

All buckets shall be stopped after being raised about three feet above the shaft bottom. A bucket shall be stabilized before a hoisting signal is given to continue hoisting the bucket to the crosshead. After a hoisting signal is given, hoisting to the crosshead shall be at a minimum speed. The signaling device shall be attended constantly until a bucket reaches the guides. When persons are hoisted, the signaling devices shall be attended until the crosshead has been engaged.

### § 57.19079 Blocking mine cars.

Where mine cars are hoisted by cage or skip, means for blocking cars shall be provided at all landings and also on the cage.

# § 57.19080 Hoisting tools, timbers, and other materials.

When tools, timbers, or other materials are being lowered or raised in a shaft by means of a bucket, skip, or cage, they shall be secured or so placed that they will not strike the sides of the shaft.

#### §57.19081 Conveyances not in use.

When conveyances controlled by a hoist operator are not in use, they shall be released and the conveyances shall be raised or lowered a suitable distance to prevent persons from boarding or loading the conveyances.

#### §57.19083 Overtravel backout device.

A manually operated device shall be installed on each electric hoist that will allow the conveyance or counterbalance to be removed from an overtravel position. Such device shall not release the brake, or brakes, holding the overtravelled conveyance or counterbalance until sufficient drive motor torque has been developed to assure movement of the conveyance or counterbalance in the correct direction only.

#### SIGNALING

### §57.19090 Dual signaling systems.

There shall be at least two effective approved methods of signaling between each of the shaft stations and the hoist room, one of which shall be a telephone or speaking tube.

# § 57.19091 Signaling instructions to hoist operator.

Hoist operators shall accept hoisting instructions only by the regular signaling system unless it is out of order. In such an event, and during other emergencies, the hoist operator shall accept instructions to direct movement of the conveyances only from authorized persons.

### § 57.19092 Signaling from conveyances.

A method shall be provided to signal the hoist operator from cages or other conveyances at any point in the shaft.

### $\S 57.19093$ Standard signal code.

A standard code of hoisting signals shall be adopted and used at each mine.

#### §57.19094

The movement of a shaft conveyance on a "one bell" signal is prohibited.

#### § 57.19094 Posting signal code.

A legible signal code shall be posted prominently in the hoist house within easy view of the hoistmen, and at each place where signals are given or received.

#### § 57.19095 Location of signal devices.

Hoisting signal devices shall be positioned within easy reach of persons on the shaft bottom or constantly attended by a person stationed on the lower deck of the sinking platform.

# § 57.19096 Familiarity with signal code.

Any person reponsible for receiving or giving signals for cages, skips, and mantrips when persons or materials are being transported shall be familiar with the posted signaling code.

### SHAFTS

### §57.19100 Shaft landing gates.

Shaft landings shall be equipped with substantial safety gates so constructed that materials will not go through or under them; gates shall be closed except when loading or unloading shaft conveyances.

# § 57.19101 Stopblocks and derail switches.

Positive stopblocks or a derail switch shall be installed on all tracks leading to a shaft collar or landing.

### $\S 57.19102$ Shaft guides.

A means shall be provided to guide the movement of a shaft conveyance.

## § 57.19103 Dumping facilities and loading pockets.

Dumping facilities and loading pockets shall be constructed so as to minimize spillage into the shaft.

#### § 57.19104 Clearance at shaft stations.

Suitable clearance at shaft stations shall be provided to allow safe movement of persons, equipment and materials.

### § 57.19105 Landings with more than one shaft entrance.

A safe means of passage around open shaft compartments shall be provided on landings with more than one entrance to the shaft.

#### § 57.19106 Shaft sets.

Shaft sets shall be kept in good repair and clean of hazardous material.

# § 57.19107 Precautions for work in compartment affected by hoisting operation.

Hoistmen shall be informed when persons are working in a compartment affected by that hoisting operation and a "Men Working in Shaft" sign shall be posted at the hoist.

# § 57.19108 Posting warning signs during shaft work.

When persons are working in a shaft "Men Working in Shaft" signs shall be posted at all devices controlling hoisting operations that may endanger such persons.

### §57.19109 Shaft inspection and repair.

Shaft inspection and repair work in vertical shafts shall be performed from substantial platforms equipped with bonnets or equivalent overhead protection

# § 57.19110 Overhead protection for shaft deepening work.

A substantial bulkhead or equivalent protection shall be provided above persons at work deepening a shaft.

### $\S$ 57.19111 Shaft-sinking ladders.

Substantial fixed ladders shall be provided from the collar to as near the shaft bottom as practical during shaft-sinking operations, or an escape hoist powered by an emergency power source shall be provided. When persons are on the shaft bottom, a chain ladder, wire rope ladder, or other extension ladders shall be used from the fixed ladder or lower limit of the escape hoist to the shaft bottom.