

Railroad Equipment and Load-out Yards

DMME

Division of Mineral Mining

AR Training

Part IX

Mobile Equipment

4VAC25-40-1590

- Railroad equipment is inherently dangerous due to:
 - The size and weight of the equipment.
 - The time delay involved in starting and stopping railcars.
 - Poor sight-lines and distances.
 - Communication usually limited to radios and hand signals.
- The 18 subsections of 4VAC25-40-1590 deal with these and other hazards.

Railroad Crossings

- 1590.1 says, in part:
 - Crossings shall be posted with warning signs or signals or shall be guarded when trains are passing.
- 1590.4
 - Only authorized persons shall be permitted to ride on trains or locomotives and they shall ride in a safe position.



2007 fatality: miner riding the end of the cars was killed when the cars struck a haul truck crossing the tracks.

Sounding Warnings



2007 fatality: miner walking across rail yard struck by a moving locomotive.

- 1590.2
 - Operators shall sound a warning before starting trains and when trains approach crossings, other trains on adjacent tracks, persons, and any place where vision is obscured.

Passing Between Cars

- 1590.3
 - Persons shall not go over, under, or between cars unless the train is stopped and the motorman has been notified and the notice acknowledged.



2004 fatality: A miner was helping to position cars. After giving the motorman the go-ahead to move, the miner was found beside the tracks, apparently run over by the cars.

Clearance Between Cars



- 1590.14
 - Railcars shall not be left on side tracks unless ample clearance is provided for traffic on adjacent tracks.

2002 fatality: While switching cars at night, the switchman was caught between the moving cars he was riding and a stationary car on an adjoining track.

Brakes and Blocking

- 1590.15
 - Parked railcars, unless held effectively by brakes, shall be blocked securely.
- 1590.16
 - Railroad cars with braking systems shall be equipped with effective brake shoes when in use.



2001 fatality: cars being moved using a rubber tired tractor mounted with a car coupler. A miner stepped between the tractor and cars to position the couplers. The cars rolled forward, pinning the miner between the couplers.

Other Important Subsections

■ 1590.6

- Positive-acting stop blocks, derail devices, track skates, or other adequate means shall be installed wherever necessary to protect persons from runaway or moving railroad equipment.

■ 1590.11

- Roadbeds, rails, joints, switches, frogs, and other elements on railroads shall be designed, installed, and maintained in a safe manner consistent with the speed and type of haulage.

■ 1590.17

- Where necessary, bumper blocks, or the equivalent, shall be provided at all track dead ends.

And Most Important....

■ 1590.8

- Persons in charge of trains (motormen, brakemen, yard masters, etc.) shall ensure that tracks are clear and personnel are in safe locations prior to moving trains.



Rail/Loading Yards

- 4VAC25-40-1600
 - Persons shall remain clear of mobile equipment in operation and shall not work or pass under booms or buckets of equipment in operation.
- 4VAC25-40-1460.5
 - Persons shall not be transported between cars of trains.



2006 fatality: miner walking beside tracks is struck by front end loader.

Loading

- 4VAC25-40-1610
 - Chute-loading installations shall be designed so that the persons pulling chutes are not required to be in a hazardous position while loading cars or trucks.