

ventilated with intake air. At mines now operating with only one free passageway to the surface, immediate action shall be taken to provide a second passageway.

Where the designated escapeways are shafts:

1. They shall be equipped with hoist and cage, or with travelable stairways, or ladders. No shaft more than 30 feet deep sunk after the effective date of this act shall be equipped with ladders.

2. Stairways shall be of substantial construction, set at an angle not greater than 45° with the horizontal, and equipped on at least one side with a suitable handrail; landing platforms shall be at least 2 feet wide and 4 feet long and shall be railed properly.

3. Ladders shall be anchored securely.

4. Where ladders, or stairways set at an angle greater than 45° , are now installed, their use may be continued provided they are of substantial construction, with platforms at intervals of not more than 30 feet and equipped with a hand rail in the case of stairways. If a designated escapeway is a slope of not more than 45° , it shall be equipped with a stairway or adequate walkway with cleats. If the slope is more than 45° , stairways shall be installed. Direction signs shall be posted conspicuously to indicate manways and designated escapeways.

78 (a) Timbering system. Minimum standards for systematic timbering suitable to the roof conditions and mining system of each mine shall be adopted. The minimum standards of timbering shall be complied with by workmen and officials, and additional timbering shall be done wherever it is necessary to afford adequate protection.

(b) Timber supply and timbering. At each mine, the management shall provide at or near the face workings an ample supply of timber and cap pieces or wedges of proper size with which to timber all working places in a safe manner.

Temporary safety posts, jacks, or cross bars shall be set close to the face when necessary, before other mining operations are begun, and as needed thereafter.

All underground working places shall be timbered sufficiently to protect employees working at the face from falls of roof, ribs, or face. Loose top and overhanging or loose faces and ribs shall be either timbered adequately or taken down.