



STATE OF WEST VIRGINIA  
Cecil H. Underwood, Governor

OFFICE OF MINERS' HEALTH,  
SAFETY AND TRAINING  
Ronald L. Harris, Director

1615 Washington Street, East  
Charleston, WV 25311-2126  
(304) 558-1425  
FAX (304) 558-1282

Visit our website at:  
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(304) 367-2708 / Fax

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## Memorandum

TO: Inspectors-at-Large / *Safety Instructors*  
FROM: Ron Harris  
DATE: April 10, 2000  
RE: CMSP Amendment for Highwall Miners  
Reference 56-8-5, 56-8-8, 56-8-9

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As mentioned in the staff meeting on 4-3-00 and with the safety instructors on 3-31-00 concerning Comprehensive Safety Program requirements for highwall miners you will find the minimum CMSP amended requirements for surface mines that are utilizing highwall miners. Have these amendments included in all initial CMSP highwall plans, and upon the annual evaluation of all existing plans.

RLH:ks  
Attachments

cc: Gary Ball  
Tyrone Coleman  
Doug Conaway

## HIGHWALL MINERS.

### Mapping - Requirements, Record Keeping.

1. Mine maps shall be made or certified by an engineer or surveyor registered in the State of West Virginia.
2. The operator of every highwall miner shall make, or cause to be made, an accurate map of such workings, on a scale of not less than one hundred, and not more than five hundred feet to the inch. The map of such mine shall show:
  - (a) Name and address of the mine;
  - (b) The scale and orientation of the map;
  - (c) All drill holes that penetrate the coal bed being mined;
  - (d) Contour lines passing through whole number elevations of the coal bed being mined, the spacing of such lines not to exceed ten-foot elevation levels, except that a broader spacing of contour lines may be approved for steeply-pitching coal beds by the person authorized to do so under the federal act; and contour lines may be placed on overlays or tracings attached to mine maps;
  - (e) The known underground workings in the same coal bed on the adjoining properties within one thousand feet of such mine workings and projections;
  - (f) The location of any body of water dammed in the mine or held back in any portion of the mine, but such bodies of water may be shown on overlays or tracings attached to the mine maps used to show contour lines;
  - (g) The location and description of at least two permanent base line points coordinated with the underground and surface mine traverses, and the location and description of at least two permanent elevation bench marks used in connection with establishing or referencing mine elevation surveys;
  - (h) Mines above or below;
  - (i) Water pools above;
  - (j) The location of the principal streams and bodies of water on the surface;
  - (k) Either producing or abandoned oil and gas wells located within five hundred feet of such mine and any underground area of such mine;
  - (l) The location of all high pressure pipelines, high-voltage power lines and principal roads;

- (m) The location of railroad tracks and public highways leading to the mine, and mine buildings of a permanent nature with identifying names shown;
  - (n) Where overburden is less than one hundred feet, occupied dwellings, and
  - (o) Such other information as may be required under the federal act or by the WV Office of Miners' Health, Safety and Training.
3. The operator of every highwall miner shall extend, or cause to be extended, on or before the first day of March and on or before the first day of September of each year, such mine map thereof to accurately show the progress of the workings as of the first day of July and the first day of January of each year. Such map shall be kept up to date by temporary notations.
  4. All other applicable requirements set forth in Chapter 22A, Article 2, Section 1 shall be complied with.
  5. The mine map maintained in accordance with the provisions of the section shall be available for inspection by the Director or his authorized representative.

#### **Proximity to Underground Workings.**

1. Highwall mining should not be conducted in close proximity to active underground workings unless the work is coordinated with the underground plan or workings. Highwall mining should not be conducted so as to: (1) disrupt the ventilation systems of the active underground mines, (2) create inundation hazards to active underground mines, and (3) cause damage to the roof and ribs of active and underground roadways.
2. Highwall mining should not intersect underground mine workings known to contain or suspected to contain dangerous quantities of impounded water, except to de-water such areas under controlled conditions and then only after all necessary precautions have been taken to safeguard life and property.

#### **General Precautions.**

1. Highwall mining plans should be formulated to minimize the possibility of the unplanned collapse of partitions between the miner holes.
2. Partitions of coal between miner entries shall be adequate enough to support the highwall when mining operations are being performed.
3. Highwalls must be safely constructed to minimize danger to workers by techniques such as: (1) pre-splitting walls during blasting; (2) angle the wall if necessary; (3) provide overhead safety benches where needed; and (4) assuring all loose/dangerous materials, such as rocks, brows and overhangs, vertical fault seam separations, etc., are scaled from the wall.
4. The bench/floor of the bench on which the highwall miner is being used must be of sufficient width to safely operate all equipment used during the mining process.
5. No unauthorized persons shall be allowed in the area where highwall mining is being conducted.
6. Adequate means shall be taken to allay coal dust being thrown into suspension in dangerous quantities.

7. Danger signs shall be conspicuously posted at all entrances to the area where highwall mining is being conducted.
8. Completed holes shall be blocked with highwall spoil to a minimum height of one (1) foot above the coal bed and to within one thousand (1,000) feet of the active workings.
9. Adequate precaution shall be taken to insure against unauthorized entry when any highwall miner openings are not blocked with highwall spoil.

#### **Highwall Miner Operation.**

1. Partitions of coal between the highwall miner openings shall not be recovered by other methods of mining without the written approval of the Director of the Office of Miners' Health, Safety and Training.
2. No smoking or open flames shall be permitted within 150 feet of highwall miner openings. No smoking signs shall be conspicuously posted in the pit where the highwall miner is operating or in pits where open highwall miner openings are present.
3. The operator shall not leave the controls while the highwall miner is being operated. Before leaving the controls for any reason, the operator shall place controls in the neutral position and de-energize the controls to prevent accidental activation of equipment by persons other than the operator.
4. No miner shall work under suspended tools equipment or machinery. Where needed, tag lines shall be used to guide machinery into place.
5. Adequate illumination shall be provided for all work areas of the highwall miner when operated in darkness or low visibility conditions.
6. Persons shall keep clear of the coal conveyance system while in motion and shall not cross over or pass under the conveyance system except where suitable crossing facilities are provided. Persons shall keep clear of conveyance system sections being swung, lowered, or loaded into position.
7. A positive audible or visible warning system shall be installed and operated to warn persons that conveyor equipment is to be started.
8. Unguarded conveyors with walkways shall be equipped with emergency stop devices as approved by the Director.
9. Good visibility shall be provided for the highwall miner operator to the launch area of the machine.
10. Two-way communication shall be provided between workers on the launch area and the highwall miner operator.

### **Methane and Oxygen.**

1. Highwall mining shall not be conducted in the vicinity of highwall miner openings or auger holes emitting dangerous quantities of methane or oxygen deficient air until the atmosphere has been rendered harmless.
2. Internal combustion engines in the vicinity of highwall miner openings shall be stopped while highwall miner holes are being inspected.
3. No material or equipment shall be stored in highwall miner openings.
4. Highwall miners shall be equipped with a permissible flame safety lamp or other detector approved by the Director.
5. In each highwall miner crew there shall be a person qualified in the care and use of permissible flame safety lamp or other approved oxygen detecting/measuring device.
6. Tests for oxygen deficiency shall be conducted with a permissible flame safety lamp or other means approved by the Director and all tests for methane shall be conducted with an approved methane detector.
7. When a highwall miner opening penetrates an abandoned or mined out areas of an underground mine, tests for methane and oxygen deficiency shall be made at the mouth of the hole by a qualified person, using approved devices to determine if dangerous quantities of methane and oxygen deficient air are present or being emitted. If such is found, no further work shall be performed until the atmosphere has been made safe.
8. Highwall miners shall be equipped with monitoring devices on the miner which will alert the operator when methane levels reach 1.0% concentrations. The monitoring device shall have the capability of de-energizing the miner when methane levels reach 2.0%.

### **Inspections.**

1. Highwall miner operators shall inspect their machine before starting and operating to determine such machine is in a safe operating condition and all safety equipment is provided.
2. The face of all highwalls, for a distance of one hundred (100) feet on both sides of each highwall miner opening being mined, shall be inspected by the highwall miner operator and the foreman before any mining operation is performed. All loose hazardous material shall be removed from the highwall before any work is performed in the area.