

MSHA MINE EMERGENCY OPERATIONS

MSHA has three mine rescue stations. Each station has different response vehicles. The stations are:

- 1) Pittsburgh National Headquarters
- 2) Beckley Mine Rescue Station
- 3) Price Mine Rescue Station

Pittsburgh National Headquarters

The Seismic Location System

The seismic location system is truck mounted and is capable of detecting and locating the source of seismic vibrations produced by trapped miners. Miners may generate seismic signals by pounding on mine surfaces such as the roof, floor, or ribs. These signals are detected by sensors installed either on the surface or underground. The system is capable of detecting signals at a range of 1500 feet, and can monitor approximately 1/2 square mile over most mines (depending upon terrain). The system is highly mobile, and can be air lifted. The system operates on 480-volts 3-phase that can be supplied by the generators on board the auxiliary truck. A supply trailer is used to carry the associated equipment.

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Seismic Location Truck



1988 International - L9122: GVW – 28,000; Height – 146”;
Length – 354”; Width – 96”

Operates on: 480V, 60amp

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Seismic Auxiliary Truck



1988 Chevrolet – L9268: GVW – 26,000; Height – 97”;
Length – 303”; Width – 96”

Equipped with: 30KW Diesel Generator

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Seismic Supply Trailer



1972 Fruehauf - L8345: GVW – 68,000; Height – 148”;
Length – 496”; Width – 96”

Operates on: 220V, 60amp

Equipped with: 6.5KW Gas Generator

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TV Probe Truck

The TV probe system is a self-contained system consisting of two complete permissible TV probes. Each probe has remote focus, zoom lens, and remote iris adjustments. The system has dual monitoring consoles, and a video tape capability. The complete system is air transportable and can operate at a depth of 1500 feet. The TV probe operates on 480 volts 3 phase 60 amps. It can also operate with 220 volts 40 amps for demonstration purposes.

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TV Probe Truck



1990 International – L9255:
GVW – 22,000 ; Height – 98”;
Length – 284” ; Width – 95”

Operates on: 480V, 60amp and
220V, 60amp

Equipped with: 6.5KW Gas
Generator

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Mobile Gas Laboratory

The Mobile Gas Laboratory is a fully-functional laboratory that can be deployed to mine fires/explosions. Gas samples can be taken from the mine atmosphere in evacuated bottles, plastic syringes, or FlexFoil bags and analyzed by MSHA personnel on site. Instrument capability includes two bench-top gas chromatographs which can analyze samples for a variety of gas constituents including: methane, ethane, acetylene, oxygen, nitrogen, hydrogen, carbon dioxide, carbon monoxide, ethylene, and argon. The system can process 4-6 gas samples per hour.

