The Northeastern District is comprised of 7 field offices & the District office

District Office / Warrendale, PA FO - 283 inspections
Kutztown, PA FO - 658 inspections
Hebron, OH FO - 428 inspections
Staunton, VA FO - 377 inspections
Geneva, NY FO - 443 inspections
Albany, NY FO - 630 inspections
Portsmouth, NH FO - 608 inspections

14 States – 3,427 Inspections

FY 2017
2,687 Mines
28,764 Miners
50,596,106 Operator Hours Reported

FY 2018 (so far)
2,440 Mines
25,130 Miners
46,235,299 Operator Hours Reported
Virginia has 1,118 miles of interstates, 8,111 miles of primary roads and over 48,000 miles of local and connector roads.

Over 3,000 directly employed miners

Over 6 million hours worked

The Northeast District of MSHA inspects 170 operations in Virginia
The top two cited standards in VA have not changed in three years. The top 5 cited standards in VA accounted for 30% of all violations issue in VA in FY18 and also accounted for 30% of all S&S violations.
FY18 Accidents in VA

There were 82 separate accidents reported in FY18 at 48 unique Mine ID’s.

There were 24 sprains and strains.

26 accidents were reported as slips, trips and falls.

29 accidents were reported as handling materials.
On January 19, 2018, a contract electrician was installing an electrical panel in the MCC room to power a new crusher installed at the mine. While punching a hole in the top of the energized 480-volt electrical panel with a hydraulic hole punch, an electrical arc occurred. The electrical circuit feeding the panel was energized and not locked and tagged out. The contract electrician received second and third degree burns and was flown to a hospital in Pittsburgh PA for treatment in the burn unit.
On February 2, 2018, the plant operator was shoveling material from around a crusher on the lower primary screen tower deck when a rock fell from a screener above striking him on the head. The rock split the victim's hardhat and caused a laceration to the left rear crown of his head. The victim was transported by mine management in a company pickup truck to a hospital in Morgantown, WV. The victim was then transported by ambulance to trauma center in a nearby hospital for evaluation. After overnight observation, the victim was released on the following day.
On October 12, 2018, a brakeman (injured miner) was stepping off of a loaded open-top rail car (estimated weight 94,000 to 100,000 tons) when he tripped and slid under the wheels of the moving rail car. Coworkers called 911 and treated the miner until Emergency Medical Services arrived onsite. The victim was life-flighted to a nearby hospital in Toledo for follow-up treatment. The accident resulted in amputations (above the knee) to both of the victim's legs. He is currently recovering from the injuries.
2018 Fatalities by Occupation

- Supervisor (4)
- Truck Drivers (4)
- UG Miner (2)
- Crusher Maintenance
- Groundman / Laborer (2)
- Kiln Technician
- Electrician

- Customer (Truck Driver) (13%)
- Supervisor (4) (25%)
- Truck Drivers (4) (25%)
- UG Miner (2) (6%)
- Crusher Maintenance (6%)
- Groundman / Laborer (2) (6%)
- Kiln Technician (6%)
- Electrician (6%)

(Fatal No. 8 Removed)
THE STREAK ENDS

- There were no fatal accidents at Northeastern District’s mines during FY 2017 (October 1, 2016 – September 30, 2017) and CY 2017 (January 1, 2017 – December 31, 2017). In fact, the streak continued until August 2018.

- This unprecedented accomplishment could not have been achieved without the extraordinary safety efforts of the mine operators and miners and their constant vigilance to ensure that the mines were as safe as possible.

- On August 22, 2018, however, the District experienced its first fatal accident in over 23 months (the last fatality occurred on September 21, 2016). This fatality occurred at a mine in PA. In October 2018, there were two additional fatalities at District mines.

- Let’s start a new streak and continue with no fatalities for many years to come!
16 FATALITIES AT METAL AND NONMETAL MINES IN CY 2018 (AS OF NOVEMBER 11, 2018)
On January 25, 2018, an articulated haul truck travelled through a berm and into an ice covered pond, submerging the truck’s cab. Divers and tow trucks were utilized to pull the submerged truck from the pond and recover the victim. (Construction Sand & Gravel Mine)

- Do not operate heavy equipment when fatigued.
- Maintain control and stay alert when operating mobile equipment.
- Conduct adequate pre-operational checks and correct any defects affecting safety in a timely manner.
- Maintain equipment braking and steering systems in good repair and adjustment.
- Operate mobile equipment at speeds consistent with the conditions of roadways.
- Ensure that berms are adequate for the vehicles present on site.
- Ensure that all exits from cabs are maintained and operable.
- Use seat belts when operating mobile equipment.
On March 14, 2018, a miner sustained a fatal injury to his head while installing discharge chutes on the screen deck. The suspended chute shifted striking him. (Construction Sand & Gravel Mine)

- Stay clear of a suspended load having the potential to become off-balanced while being moved.
- Follow proper rigging procedures when lifting loads. Carefully inspect all rigging prior to each use.
- Use welded lifting eyes specifically designed for lifting and adequately rated for the load.
- Attach taglines to loads that may require steadying or guidance while suspended. Position yourself in areas where you will not be exposed a sudden release of energy.
- Follow the equipment manufacturer's procedures to ensure that all hazards have been addressed.
- Train persons to recognize and control the hazards associated with performing repair or maintenance tasks.
- Assign a sufficient number of persons to ensure the tasks can be safely performed.
- Miners should wear fall protection when working at elevated heights.
2018 FATALITY NO. 3

On April 12, 2018, a 60-year old customer truck driver was killed when he fell from, and was run over by, his truck while scanning into the operator’s check-in system. The victim was found underneath the belly dump of the semi-trailer, and the truck was still in gear. (Construction Sand & Gravel Mine)

- Implement check-in system technology that can be scanned remotely from inside the vehicle such as a RFID tag or indicator.
- Commercial and customer truck drivers should remain in their trucks while on mine property, unless a safe area for tarping and checking their loads has been designated.
- Operators should place their equipment in neutral and set the parking brakes before exiting the operator compartment.
- Rules establishing safe operating procedures should be posted.
- Ensure workers who operate heavy equipment are adequately informed, instructed, trained and supervised.
2018 FATALITY NO. 4

On Wednesday, May 9, 2018, a miner was burned while lighting a gas fired kiln. There was a blow back when igniting the kiln and the miner received significant burn injuries. On Tuesday May 29, 2018, the miner died as a result of these injuries. (Lime Facility)

- Remove flammable and combustible materials from areas prior to cutting, welding, or other hot work. A qualified person should monitor where heavy vapors could accumulate.
- Ventilation systems should be properly designed, installed, and maintained.
- Install fixed monitoring systems with alarms in areas with potential for flammable and other hazardous atmospheres and calibrate and maintain them regularly. The systems should have redundant controls and readouts located inside and outside of hazardous areas.
- Process equipment and systems should be properly designed and completely installed prior to use.
- Inerting systems should be properly designed, installed, adequately filled, and maintained.
- Do not work in areas where concentrations of vapors can be immediately fatal (Lower Explosive Limit), Immediately Dangerous to Life or Health, or where they exceed permissible exposure limits (PELs) to produce adverse health effects.
- Minimize or eliminate hazards by using appropriate engineering and administrative controls.
2018 FATALITY NO. 5

On June 13, 2018, a 65-year old truck driver with 4 years of experience was fatally injured when his truck traveled over a berm and into an impoundment of water. Divers recovered the victim in 20 feet of water. (Construction Sand & Gravel Mine)

- Maintain control and stay alert when operating mobile equipment.
- Conduct adequate pre-operational checks and correct any defects affecting safety in a timely manner.
- Maintain equipment braking and steering systems in good repair and adjustment.
- Operate mobile equipment at speeds consistent with the conditions of roadways and traffic.
- Ensure that berms are adequate for the vehicles present on site.
- Consider storing personal flotation devices in equipment that is being operated near water.
- Ensure that all exits from cabs on mobile equipment are maintained and operable.
- Use seat belts when operating mobile equipment.

This fatality is “under review” and may be ruled non-chargeable since the autopsy shows that the truck driver suffered a heart attack before entering the water.
2018 FATALITY NO. 6
On June 23, 2018, a 46-year old electrician with 10 weeks of experience was fatally injured while trying to stop runaway railcars. The miner ran to the front of a set of moving railcars and jumped on in order to set the hand brake. The miner then attempted to jump clear and was fatally injured when he was run over by the moving railcars. (Construction Sand & Gravel Mine)

• Apply a mechanical hand brake to ensure a railcar does not move when it is stopped for loading, unloading, or storage. Use wheel chocks or derail devices for added protection against accidental movement.

• Never attempt to mount, crossover, cross under, or dismount a railcar while it is moving.

• Train personnel in the safe procedures of working with railcars. Establish safe work procedures and ensure all personnel involved communicate clearly with each other.
2018 FATALITY NO. 7

On July 31, 2018, a 62-year old foreman with 40 years of experience, was fatally injured while dismantling a portable crusher. The front-end loader was placing a 20-foot long steel tube onto the screen feed conveyor. The front-end loader operator lowered the bucket and crushed the victim against the conveyor structure. (Construction Sand & Gravel Mine)

- Front-end loader operators must ensure personnel are not near the machine when in operation.
- Use cranes with appropriate rigging and tag lines to position components.
- When working near equipment, make eye contact with the equipment operator and directly communicate your intended movements.
- Wear a reflective vest or clothing while working.
- Ensure all persons are trained to recognize workplace hazards - specifically, the limited visibility and blind areas inherent to operation of large equipment.
- Prior to starting the task, train miners on proper maintenance procedures and discuss steps that will be taken to safely perform the job.
2018 FATALITY NO. 8

On August 8, 2018, a 53-year old truck driver hauling flagstone material overturned and was killed. The driver was operating a “6x6 military style truck” on a mine site that had no MSHA I.D. number and the site has never been inspected by MSHA. (Dimension Stone Mine)

MSHA has determined that it does not have jurisdiction on the public road where the previously posted Fatality #8 accident occurred. Accordingly, MSHA has delisted Fatality #8 as chargeable to the mining industry.
On August 22, 2018, a 29-year old miner with 1 year of experience was fatally injured while cleaning a snub pulley. The victim was working from an aerial lift located under the belt conveyor when he became entangled in the conveyor pulley. (Crushed & Broken Traprock Mine)

- Ensure that persons assigned to clean conveyor belts have received adequate training and verify that safe belt conveyor work practices are followed.
- Stay clear of moving equipment and do not reach into any part of a moving conveyor.
- Avoid wearing loose-fitting clothing when working around moving conveyor belt components.
- Verify that all incoming power connectors are open by a circuit breaker, the conveyor is stopped and secured from movement before working on belt conveyors.
- Provide and maintain safe access to elevated areas where routine maintenance is performed.
2018 FATALITY NO. 10

On October 2, 2018, a 40-year old miner, with 20 years of experience, was fatally injured as a result of a ruptured air hose. During development of a vertical raise, the contract foreman was attempting to clean out a previously blasted vertical drill hole with a high-pressure air hose. A sudden release of pressure, from the exploding air hose from within the hole, forced material to be ejected from the hole striking the foreman. The foreman died from the injuries he received. (Underground Lead/Zinc Mine)

Northeastern District (NY)

- Always check the condition of hoses and lines before use.
- Store the hoses in areas that do not experience high traffic so they do not get damaged.
- Always follow pressure ratings and limitations of the hoses and the compressed air system being used.
2018 FATALITY NO. 11

On October 11, 2018, a 26-year old miner, with 48 weeks of experience at the mine, was fatally injured as a result of falling from on top of a previously cut block of granite. The victim was in the process of adding water to metal bladders between the rock and high wall to move the rock, when the block suddenly slid out at the bottom. The movement caused the miner, not wearing fall protection, to lose his balance and fall between the block and the high wall causing fatal injuries.

(Dimensional Granite Mine)

Northeastern District (VA)

- Always conduct examinations of work place to identify loose ground or unstable conditions before work begins and as changing ground conditions warrant.
- Ensure that the person conducting the examination has the training and experience to recognize potential hazards.
- Discuss work procedures and identify all hazards associated with the work to be performed along with the methods to protect personnel.
- Do not place yourself in a position that will expose you to hazards while performing work tasks.
- Wear fall protection where there is a danger of falling.
2018 FATALITY NO. 12

On October 19, 2018, a 63-year old quarry manager, with 17 years of experience, was fatally injured when he lost control of the haul truck he was driving. The victim was operating a haul truck down a steep grade and traveled through a berm and over a short drop-off. The victim was not wearing a seat belt. (Dimensional Stone Mine)

- Always wear seat belts, maintain control and stay alert when operating mobile equipment.
- Conduct adequate pre-operational checks and correct any defects affecting safety in a timely manner prior to operating mobile equipment.
- Operate mobile equipment at speeds consistent with the conditions of roadways, tracks, grades, clearance, visibility, curves, and traffic.
- Ensure berms are adequate for the vehicles used on site (constructed of appropriate materials, adequate height, and built on firm ground).
On October 25, 2018, a 29-year old laborer with 9 weeks of experience was fatally injured when the truck he was driving veered off the haul road and climbed an embankment, causing the truck to overturn. He was not wearing a seatbelt. (Surface Copper Ore Mine)

- Always wear a seat belt when operating mobile equipment.
- Operate mobile equipment at speeds consistent with the conditions of roadways, tracks, grades, clearance, visibility, curves, and traffic.
- Maintain control and stay alert when operating mobile equipment, especially vehicles with high centers of gravity.
2018 FATALITY NO. 14

On October 25, 2018, a 42-year old miner with 13 years of experience was killed when the back fell while he was loading explosives in the face. The back was comprised of cemented backfill and weighed approximately 150 tons. (Underground Gold Ore Mine)

- Implement a robust quality control program to ensure cemented rock fill is mixed and placed properly, especially when it constitutes the main method of ground support.

- Examine and test ground conditions in areas where work is to be performed prior to work commencing and as warranted during the shift. Be alert for changing conditions, especially after activities that could cause back/roof disturbance.

- When ground conditions create a hazard to persons, install additional ground support before other work is permitted in the affected area.

- Task train all persons to recognize all potentially hazardous conditions and ensure they understand safe job procedures for elimination of the hazards.
2018 FATALITY NO. 15

On November 3, 2018, a 44-year old shift supervisor with 3 years of experience was killed when a loaded Caterpillar 785B haul truck ran over her pickup truck at the

- Communicate and verify with all equipment operators your planned movements and location upon entering a work area.

- Ensure all persons are trained to recognize workplace hazards. Specifically, train equipment operators on the limited visibility and blind spot areas that are inherent to the operation of large equipment. Do not drive or park smaller vehicles in mobile equipment's potential path of movement.

- Instruct all operators on the importance of using flags or strobe lights on the cabs of their vehicles to make haulage truck operators aware of their location.

- Install and maintain collision avoidance/warning technologies on mobile equipment.
On November 11, 2018, a 45-year old Underground Technician with 4 years of experience was killed when the Load-Haul-Dump (LHD) machine he had been operating underground ran over him. (Gold Ore Mining, N.E.C.)

- Ensure that all braking systems installed on mobile equipment function properly when the engine is operating and when it is shut off. Do not depend on hydraulic systems to hold mobile equipment in a stationary position.
- Block LHDs against motion by setting the parking brake. Turn the tires toward the rib and lower the bucket onto the floor. Use wheel chocks when parking mobile equipment.
- Conduct adequate pre-operational examinations on all self-propelled mobile equipment and promptly correct any defects affecting safety.
- Before beginning a task, miners should discuss the work procedures, identify all possible hazards, and ensure steps are taken to safely perform the task.
Section C - Reportable Accident Injury or Illness

5(a&b). Location Surface - 30 - Mill, Prep Plant, etc 5(c). UG Mining Method

6. Accident Date 10/30/2018 7. Accident Time 2:10 PM 8. Shift Started 7:00 AM 9. Conditions Contributing to the Accident/Injury/Illness

Jorge went to work truck to get a drink & grabbed a 1-gallon windshield wiper fluid bottle from the bed of the work truck that had contained antifreeze (the bottle was labeled antifreeze in sharpie) believing it was a Gatorade mix bottle. He poured some into his water bottle and drank half the bottle before realizing something was wrong. Employee was advised to go to the hospital.
MSHA investigates all deaths on mine property; however, some deaths are unrelated to mining activity and are not counted in the statistics MSHA uses to assess the safety performance of the mining industry. These deaths are termed "non-chargeable" and include homicides, suicides, deaths due to natural causes, and deaths involving trespassers.

CHARGEABILITY INVESTIGATIONS
In the past four calendar years, the Northeastern District conducted 35 investigations of deaths at mine sites and submitted the results to MSHA Headquarters for Chargeability Review:


- All 34 deaths were determined to be non-chargeable to the mining industry.
  - Twelve of these (34%), involved trespassers.
  - The remaining 23 cases involved miners who deaths were directly attributed to natural causes.
NE District Hazard Complaint Investigations

Note: NCC is the USDOL National Contact Center 1-800-746-1553

Note: In FY 2018, the number of hazard complaints decreased but the percentage with “positive” findings increased.
Coal Mine Fatality – On Friday, September 7, 2018, a 60-year-old haul truck operator with 1 year of total mining experience received burn injuries while attempting to escape from the cab of the burning haul truck he was operating. Due to complications associated with his injuries, the victim died five days later.
Best Practice

**Preventing a fire is the best fire protection.** Install and maintain early fire detection and alarm systems on all haulage equipment that provide an audible and visible fire warning for miners to safely evacuate the equipment.

Thoroughly examine all haulage equipment and repair safety defects before placing equipment into service. Follow the original equipment manufacturers maintenance recommendations. Check for accumulations of combustible materials, cracked or blistered hoses, and uninsulated wires.

Be alert to changes in the way the equipment sounds or to a visible plume of exhaust coming from the exhaust system.

Conduct risk assessments on all equipment to determine safe exit locations for required escape and evacuation plans.

Install well designed stairs or ladders to the equipment at both ends for an alternate escape.

*Ensure fire suppression systems are properly maintained and protected from damage. Install suppression systems and train miners on their use.*
Typical set of tanks and actuators
BASIC SYSTEM COMPONENTS

Actuator Button
Ring pin and chain with taper indicator
Maintenance tag
Actuator bottles
Actuator hose
Check valves
Expellant gas bottle(s)
Expellant gas hose
Chemical agent tank(s)
Chemical distribution hoses
Nozzles and caps
¼” Actuator Hose
Connects actuator bottle to expellant gas bottle(s)
Routing of hose must position it away from heat generated by sources of fire, electrical wires, and moving parts
Not routed through engine compartment
Clamped at least every 5 ft., no loose connections
Check for holes, abrasion, or other damage

All Hoses
Hose Specifications
To ensure proper performance of the ANSUL A-101/LT-A-101 system, the hose used must meet either SAE 100 R5 or 100 R1 hose specifications as a minimum. The hose must have an operating temperature of -40 °F to +200 °F (-40 °C to +93 °C).
Chemical Agent Tank

Check for rust, dents, or other significant damage

ANSUL does not recommend opening the tank for routine inspection since moisture will cause the chemical to harden.

If there are signs of discharge, check for chemical in the tank.
Nozzles and caps
If system is discharged, supply lines must be cleaned of all dry chemical to prevent plugging of lines
All nozzles must be protected from the entrance of mud, coal dust, or rock dust
Blow off caps must be in place
§56.18002 Examination of working places.
(a) A competent person designated by the operator shall examine each working place at least once each shift before work begins or as miners begin work in that place, for conditions that may adversely affect safety or health.

(1) The operator shall promptly notify miners in any affected areas of any conditions found that may adversely affect safety or health and promptly initiate appropriate action to correct such conditions.

(2) Conditions noted by the person conducting the examination that may present an imminent danger shall be brought to the immediate attention of the operator who shall withdraw all persons from the area affected (except persons referred to in section 104(c) of the Federal Mine Safety and Health Act of 1977) until the danger is abated.

(b) A record of each examination shall be made before the end of the shift for which the examination was conducted. The record shall contain the name of the person conducting the examination; date of the examination; location of all areas examined; and description of each condition found that may adversely affect the safety or health of miners and is not corrected promptly.

(c) When a condition that may adversely affect safety or health is not corrected promptly, the examination record shall include, or be supplemented to include, the date of the corrective action.

(d) The operator shall maintain the examination records for at least one year, make the records available for inspection by authorized representatives of the Secretary and the representatives of miners, and provide these representatives a copy on request.
THANK YOU

QUESTIONS?

Kevin H. Abel
Assistant District Manager
Northeastern District
Mine Safety and Health Administration
(724) 772-2334
Abel.kevin@dol.gov