Six Coal Miners Killed in 25 Days!

Six different coal mining accidents occurred within the recent 25-day period; four in West Virginia, one in Kentucky and one in Illinois. Four of the accidents were at underground mines and two occurred at surface mines.

1/26/13 - MACHINERY accident: A 52-year-old contract welder was attempting to remove a damaged portion of the center push blade metal liner on a bulldozer. A hydraulic jack was being used to push the wear plate away from the bulldozer blade. The victim was using an air chisel between the wear plate and the blade. The hydraulic jack slipped and the victim was crushed between the blade and the damaged wear plate. He received a blunt force trauma injury to the head, resulting in a fatality. The victim had 2 years of total experience, all at this mine, with two weeks experience at this activity as a welder.

2/06/13 - EXPLODING VESSELS UNDER PRESSURE accident: A 34-year-old company engineer was killed when a hydraulic cylinder failed catastrophically, struck the victim, and caused fatal blunt force trauma injuries. Prior to the accident, he was trouble shooting a plate-type filter press that was being used to de-water coal slurry. The press was in operation while an evaluation was being conducted for a Programmable Logic Controller (PLC) related problem. The victim had 9 years and 16 weeks experience, with one day at this mine site. He had 1 year and 12 days experience at this type of activity.

2/07/13 - HOISTING accident: A 43-year-old utility man / scoop operator was in the deck of a battery scoop and two miners were unloading trash from the metal scoop bucket insert onto the hoist for removal from the mine. . The hoist elevated suddenly causing the scoop bucket, positioned over the hoist deck, to lift upward and slip away from the hoist deck. This motion caused the scoop to fall downward onto the mine floor. The two miners unloading trash were able to run to safety; however, the scoop operator cleared the operator's deck but was found beneath the scoop with fatal, crushing injuries. The victim had 13 years total mining experience, with 30 weeks at this mine, all 30 weeks at this activity.

2/13/13 - MACHINERY accident: A 28-year-old continuous mining machine operator was operating the machine in the #1 entry on the left side of the #1 unit and had completed the 3rd of 4 lifts. It is believed that the victim was backing the continuous mining machine to set over to the left side of the entry to cut the final lift. Apparently, the tail of the continuous mining machine swung back toward the continuous mining machine operator and pinned him against the rib. The victim had 4 years and 7 weeks total mining experience, with 2 years, 6 weeks at this mine. The victim started operating the continuous mining machine 1 or 2 days per week in October 2010 and had been operating the machine full time for the last 18 weeks.

2/12/13 - POWERED HAULAGE accident: The motor crew was moving longwall parts with 4 shield carriers along the track. At approximately block 126 of the main west haulage, there was a bad portion of track. All 4 shield carriers derailed. They were in the process of putting one of the shield carriers back on the track. The motor crew placed an air bag under two of the carriers. Because the air bag did not raise the carriers high enough, a motorman used a slate bar to try to move the flange of the wheel over the top of the rail. The load shifted/popped back and caused the bar to fly back and hit him on the head. The victim, who was 51-years-old, died on February 14, 2013. The victim had 31 years of mining experience, 9 years at the mine and 9 years of experience as a motorman.

2/19/13 - POWERED HAULAGE accident: A 44-year-old miner, who normally operates a shuttle car, was shoveling the ribs while working with the scoop operator cleaning road ways. The scoop operator was cleaning Crosscut # 1 break inby the section feeder, pushing material to the face. The scoop reversed tram and traveled from the face area, striking and crushing the victim with the battery end of the scoop and killing him. The victim had approximately 14 months of experience as a shuttle car operator, with 4 years of total mining experience, including approximately 14 months of experience at this mine.

Best Practices Recommended to Prevent These Types of Accidents

Surface Machinery

- Ensure the power is off and the equipment is blocked against motion prior to performing maintenance.
- Devise safe methods to complete tasks involving large objects, massive weights, or where the release of stored energy is a possibility.
- Provide proper task training.
- Never use a hydraulic jack as the only tool for supporting large objects, massive weights, or objects that have the potential for the release of stored energy.
- Avoid metal to metal contact because it slides much easier than wood or other materials against metal.
- Ensure that all contact areas where jacks or other blocking materials are to be installed are free from grease or other substances to decrease the likelihood of shifting and sliding.
- Ensure that there is sufficient space around equipment to enable work to be performed safely.
- Consult and follow the manufacturer's recommended safe work procedures for the maintenance task and monitor work to ensure procedures are followed.
- Ensure that contractors have safe work procedures in place for the specific task, machine, etc.
- Before performing any job, consider all hazards and implement formal procedures that address possible hazards.

Powered Haulage

- Be aware of your location relative to mobile equipment movement and never position yourself between equipment in motion and a stationary object.

- Mark the area where equipment is parked for maintenance with conspicuous reflective material, flashing lights, or other warning signs on both sides of the entry or crosscut to warn mobile equipment operators of a parked machine or the presence of other miners.
- Train miners to establish and use effective communications working around equipment.
- Ensure that mobile equipment operators are aware of your location at all times.
- Use approved translucent or transparent ventilation curtains for better visibility. Never put extraneous material or supplies on mobile equipment where it can obstruct the visibility of the machine operator.
- When operating equipment, sound audible warnings while traveling around turns or blind spots, through ventilation curtains, and at any time the operator's visibility is limited or obstructed.
- Install proximity detection systems on all mobile face equipment.

Underground Machinery

- Install and maintain proximity detection systems. See the proximity detection single source page on the MSHA website.
- Develop programs, policies, and procedures for starting and tramming remote controlled continuous mining machines.
- Frequently review, retrain, and discuss avoiding the "RED ZONE" areas when operating or working near a remote controlled continuous mining machine.
- Train all production crews and management in the programs, policies, and procedures and ensure that they are followed.
- Ensure that mining machine operators are in a safe location while tramming the continuous mining machine from place to place or repositioning in the entry during cutting and loading.
- Ensure everyone is outside the machine turning radius before starting or moving the equipment.
- When moving continuous mining machines where the left and right traction drives are operated independently, low tram speed should be used.
- Assign another miner to assist the continuous mining machine operator when it is being moved or repositioned. Train all persons in the programs, policies, and procedures for operating or working near remote controlled continuous mining machines. Additional information on preventing these types of accidents can be found at: MSHA's Safety Targets Program Hit By Underground Equipment.

Hoisting

- Ensure that an adequate delay time is provided between the activation of visual and/or audible alarms and the movement of the hoist, so that workers can react and move clear of dangerous areas.
- Conduct thorough examinations of all hoisting equipment and safety mechanisms on a daily basis. Ensure that persons conducting these examinations are trained adequately and any deficiencies identified are corrected immediately.
- Discuss work procedures and identify all hazards associated with the work to be performed along with the methods to properly protect persons.
- Communicate work activities prior to beginning the work and maintain communications during the work activity.

- Develop and implement a standard operating procedure (SOP) for the safe operation of service hoists and man hoists, train all of the miners involved in hoisting operations, and post these procedures near the hoist control panels in a conspicuous location.
- Provide redundant safety mechanisms that provide a more fail proof check of the system before the hoist can be operated.
- When possible, secure the cage mechanically to prevent cage motion due to suspension rope stretch during loading or other unintended motion.
- Design Electrical safety circuits so that an open circuit does not represent a safe condition and the functioning of the safety circuit should not be solely dependent on a single programmable electronic system.
- Ensure that the hoist is inoperable during loading and unloading operations.

Exploding Vessels Under Pressure

- When troubleshooting or testing pressurized systems, position yourself in a safe location, away from any potential sources of failure.
- When possible, block access to areas where pressurized cylinders, tanks, or other vessels are located while the equipment is in operation and under pressure.
- Train miners in the proper maintenance of and the dangers associated with working around pressurized cylinders, tanks, and other vessels that have the potential to explode or rupture.
- Ensure the ratings of hydraulic components are compatible with their intended use.
- Use the proper tools and equipment for the job.
- Inspect, examine and evaluate all materials that are being used in the installation, replacement, or repair of pressurized systems to ensure they are suitable and meet minimum manufacturer's specifications.
- Examine and inspect hydraulic components for defects periodically.

Fatality #1 - January 26, 2013
Machinery - Surface - Kentucky
T and T Energy, LLC - Begley Resources #1 Mine

COAL MINE FATALITY - On Saturday, January 26, 2013, a 52-year-old contract welder with 30 years of experience was killed while doing maintenance on a bulldozer. The victim was performing work to remove a damaged wear plate from the bulldozer's center portion of the blade. At the time of the accident, a hydraulic jack was being used to push the wear plate away from the bulldozer blade. The victim was using an air chisel between the wear plate and the blade. The hydraulic jack slipped while the victim was using the air chisel and he was crushed between the blade and the damaged wear plate.

Best Practices

- Ensure the power is off and the equipment is blocked against motion prior to performing maintenance.
- Devise safe methods to complete tasks involving large objects, massive weights, or where the release of stored energy is a possibility.
- Provide proper task training.
- Never use a hydraulic jack as the only tool for supporting large objects, massive weights, or objects that have the potential for the release of stored energy.
- Avoid metal to metal contact because it slides much easier than wood or other materials against metal.
- Ensure that all contact areas where jacks or other blocking materials are to be installed are free from grease or other substances to decrease the likelihood of shifting and sliding.
- Ensure that there is sufficient space around equipment to enable work to be performed safely.
- Consult and follow the manufacturer's recommended safe work procedures for the maintenance task and monitor work to ensure procedures are followed.
- Ensure that contractors have safe work procedures in place for the specific task, machine, etc.
- Before performing any job, consider all hazards and implement formal procedures that address possible hazards.

This is the first fatality reported during calendar year 2013 in the coal mining industry. As of this date in 2012, there was one fatality reported in coal mining. This is the first fatality classified as Machinery in 2013. At this time in 2012, there was no fatality in this classification.

The information provided in this notice is based on preliminary data ONLY and does not represent final determinations regarding the nature of the incident or conclusions regarding the cause of the fatality.

Fatality #2 - February 6, 2013
Exploding Vessels Under Pressure - Facility - West Virginia
Midland Trail Energy, LLC - Five Mile Prep Plt & Refuse Impoundment

COAL MINE FATALITY - On Wednesday, February 6, 2013, at approximately 4:00 p.m., a 34-year-old company engineer was killed at a coal preparation facility when he was struck by one of the hydraulic cylinders on a plate-type filter press. A hydraulic cylinder catastrophically failed while the press was in operation. The victim was positioned near the hydraulic cylinders, troubleshooting the operation of the filter press, when the accident occurred. The filter press de-watered the fine coal refuse material generated during the coal cleaning process.

Best Practices

- When troubleshooting or testing pressurized systems, position yourself in a safe location, away from any potential sources of failure.
- When possible, block access to areas where pressurized cylinders, tanks, or other vessels are located while the equipment is in operation and under pressure.
- Train miners in the proper maintenance of and the dangers associated with working around pressurized cylinders, tanks, and other vessels that have the potential to explode or rupture.
- Ensure the ratings of hydraulic components are compatible with their intended use.
- Use the proper tools and equipment for the job.
- Inspect, examine and evaluate all materials that are being used in the installation, replacement, or repair of pressurized systems to ensure they are suitable and meet minimum manufacturer's specifications.
- Examine and inspect hydraulic components for defects periodically.

This is the second fatality reported during calendar year 2013 in the coal mining industry. As of this date in 2012, there was one fatality reported in coal mining. This is the first fatality classified as Exploding Vessels Under Pressure in 2013. At this time in 2012, there was one fatality in this classification.

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Fatality #3 - February 7, 2013
Hoisting - Underground - West Virginia
Affinity Coal Company, LLC - Affinity Mine

COAL MINE FATALITY - On Thursday, February 7, 2013, at approximately 9:20 p.m., a 43-year-old utility man was killed when he was pinned underneath the scoop he was operating at the bottom of a service shaft. The victim and two other miners were unloading trash from a scoop bucket insert with the scoop bucket positioned on the hoist platform. The hoist unexpectedly started moving up the shaft. This raised the front end of the scoop, which slipped away from the hoist deck and fell suddenly. The victim was found underneath the operator's deck of the scoop.

Best Practices

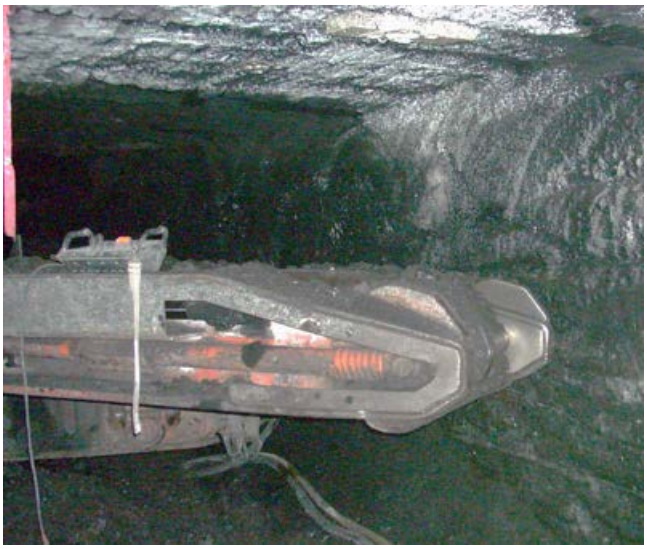
- Ensure that an adequate delay time is provided between the activation of visual and/or audible alarms and the movement of the hoist, so that workers can react and move clear of dangerous areas.
- Conduct thorough examinations of all hoisting equipment and safety mechanisms on a daily basis. Ensure that persons conducting these examinations are trained adequately and any deficiencies identified are corrected immediately.
- Discuss work procedures and identify all hazards associated with the work to be performed along with the methods to properly protect persons.
- Communicate work activities prior to beginning the work and maintain communications during the work activity.
- Develop and implement a standard operating procedure (SOP) for the safe operation of service hoists and man hoists, train all of the miners involved in hoisting operations, and post these procedures near the hoist control panels in a conspicuous location.
- Provide redundant safety mechanisms that provide a more fail proof check of the system before the hoist can be operated.
- When possible, secure the cage mechanically to prevent cage motion due to suspension rope stretch during loading or other unintended motion.
- Design Electrical safety circuits so that an open circuit does not represent a safe condition and the functioning of the safety circuit should not be solely dependent on a single programmable electronic system.
- Ensure that the hoist is inoperable during loading and unloading operations.

This is the third fatality reported during calendar year 2013 in the coal mining industry. As of this date in 2012, there was one fatality reported in coal mining. This is the first fatality classified as Hoisting in 2013. At this time in 2012, there was no fatality in this classification.

The information provided in this notice is based on preliminary data ONLY and does not represent final determinations regarding the nature of the incident or conclusions regarding the cause of the fatality.

Fatality #4 - February 13, 2013
Machinery - Underground - Illinois
Knight Hawk Coal LLC - Prairie Eagle South Underground Mine

COAL MINE FATALITY - On Wednesday, February 13, 2013, a 28-year-old continuous mining machine operator was killed when he was pinned between the tail of the remote controlled continuous mining machine and the coal rib. The victim had mined the first two lifts of the cut sequence in the No. 1 entry. While repositioning the continuous mining machine to mine the final cut on left side, the victim was pinned between the tail of the machine and the coal rib on the right side. The victim had 4 years and 2 months of mining experience, with 6 months of experience as a continuous mining machine operator.



Best Practices

- Install and maintain proximity detection systems. See the proximity detection single source page on the MSHA website.
- Develop programs, policies, and procedures for starting and tramming remote controlled continuous mining machines.
- Frequently review, retrain, and discuss avoiding the "RED ZONE" areas when operating or working near a remote controlled continuous mining machine.
- Train all production crews and management in the programs, policies, and procedures and ensure that they are followed.
- Ensure that mining machine operators are in a safe location while tramming the continuous mining machine from place to place or repositioning in the entry during cutting and loading.
- Ensure everyone is outside the machine turning radius before starting or moving the equipment.
- When moving continuous mining machines where the left and right traction drives are operated independently, low tram speed should be used.
- Assign another miner to assist the continuous mining machine operator when it is being moved or repositioned.
- Train all persons in the programs, policies, and procedures for operating or working near remote controlled continuous mining machines. Additional information on preventing these types of accidents can be found at: MSHA's Safety Targets Program Hit By Underground Equipment.

This is the fourth fatality reported during calendar year 2013 in the coal mining industry. As of this date in 2012, there was one fatality reported in coal mining. This is the second fatality classified as Machinery in 2013. At this time in 2012, there was no fatality in this classification.

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Fatality #5 - February 12, 2013
Powered Haulage - Underground - West Virginia
Consolidation Coal Company - Loveridge #22

COAL MINE FATALITY - On Tuesday, February 12, 2013, a 51-year-old motorman with 31 years of mining experience was seriously injured while attempting to re-rail a shield carrier. The shield carrier was raised with an air bag. The victim was attempting to straighten the wheels and pry the wheel flange high enough to clear the rail. As the wheel flange cleared the rail, the shield carrier shifted, causing the slate bar to fly back and strike the victim in the face. The victim later died of the injury.

Best Practices

- Block or secure equipment being raised against motion so it cannot suddenly shift.
- Always be aware of the stored potential energy when raising or lowering items.
- Make sure the lifting device has a secure base before lifting an item.
- When lifting items and the desired height cannot be reached, block the item in position and lower the lifting device to establish a higher base.
- Ensure that personnel are trained to recognize hazardous work procedures where inadvertent movements could cause injury.
- Discuss work procedures and identify all hazards associated with the work to be performed, along with the methods to protect personnel.
- Ensure personnel are equipped with proper equipment and are knowledgeable of safe procedures for rerailing.

This is the fifth fatality reported in calendar year 2013 in the coal mining industry. As of this date in 2012 there was one fatality reported in the coal mining industry. This is first fatality classified as Powered Haulage in 2013. At this time in 2012, there was no fatality in this classification.

The information provided in this notice is based on preliminary data ONLY and does not represent final determinations regarding the nature of the incident or conclusions regarding the cause of the fatality.