

NEW MEXICO BUREAU OF MINE SAFETY

801 Leroy Place Socorro, NM 87801

Phone: 575-835-5460 Website: bmi.state.nm.us www.nmminesafety.com

January 2018 Newsletter

FINGER POINTING MAY IMPROVE SAFETY

In the December 31 issue of the Chicago Tribune, Mark Jacob and Stephan Benzkofer (both Tribune writers) reported on "10 Things You Might Not Know About Fingerpointing". The materials was gathered from their jointly published book 10 Things You Might Not Know About Nearly Everything.

The article includes finger-pointing matters that include well known people from Annie Oakley to Winston Churchill. I was especially intrigued by item number 8.

It seems that Japanese rail workers have reduced error rates in performing simple tasks from 2.38 per 100 tasks to 038 per 100 tasks by using a technique that includes pointing. The Japanese call



it the shisa kanko safety technique. It's really just a 3-step process.

- 1. The worker will point at an object such as a sign.
- The worker will then read it aloud, or name the object out-loud.
- 3. The worker will take the proper action.

The authors give the example of a train engineer who sees, points, and reads aloud a speed limit sign that reads 35 and then reduces speed accordingly.

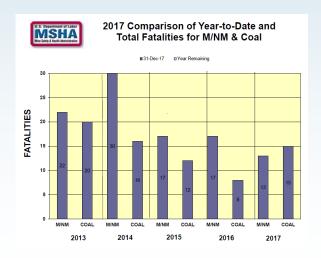
The technique seems to be effective because it engages the eyes, voice, hearing and physical movement of the arm and hand. Despite the biggest impediment, overcoming workers' embarrassment, the shisa kanko technique has been adopted my a range of other Japanese industries.

Chicagotribune.com/10thingsbook

"FLATTERY SHOULD BE USED LIKE PERFUME - SMELL AND ENJOY IT, BUT DON'T SWALLOW IT!"

--Unknown

Metal/Non-Metal Mining Sets New Record for Fewest Fatal Injuries in 2017



The year-end fatal statistics are in. Coal mining saw a significant increase in the number of fatal injuries in 2017 while (even with a late December fatality) Metal/Non-metal scored it's lowest number of fatal injuries ever at 13. Just a few years back (2014) the M/Nm industry suffered 30 fatalities. The 13 fatalities experienced in 2017 represent a decrease of four from both 2015 and 2016.

Coal mining experienced 15 fatal injuries in 2017, compared to only 8 in 2016 and 12 in 2015.

In combination, the 28 fatal injuries experienced in 2017 for all of mining in the U.S. represents the second best year ever. In 2016 only 25 fatal injuries were recorded.

M/NM Fatal Injury December 30, 2017

On December 30, an employee in a pickup truck approached the quarry loadout area to get the Front End Loader (FEL) operator. The pickup truck pulled in behind the FEL.

The FEL backed into the pickup, pushing it sideways and crushing the driver's side of the pickup cab, trapping the victim inside the truck.

The pickup truck caught fire and efforts by the FEL operator and a nearby contractor to put the fire out using fire extinguishers were not successful.

Underground New Mexico Mines Engage in Mine Emergency Response Drill (MERD)

Five mine rescue teams along with operations and support leadership representing Intrepid Potash, Mosaic Potash and the Waste Isolation Pilot Plant (WIPP) gathered in Eddy County on January 3rd and 4th to participate in a Mine Emergency Response Drill (MERD) exercise conducted underground at the Mosaic mine and at the Intrepid West Mine. Separate Emergency Response scenarios were worked at both locations.

With the assistance of New Mexico Bureau of Mines personnel and MSHA personnel, the drill evolved into a massive learning experience for all involved.

Teamwork

The mine rescue teams were divided into four teams drawn upon from the five company teams. In this way, at least one member from Mosaic was on each team working the problem at Mosaic and at least one Intrepid team member was on each team working the problem at Intrepid. This simulated more closely the make-up of teams in an actual rescue operation.



The MERD problem at each location was worked progressively. As a team explored an area with specific tasks assigned by the command center, a second team,

fully equipped was waiting at a designated area to takeover (hand-off) and complete another set of assigned tasks. Using this method a complex and lengthy rescue/ recover can be accomplished with-



out wearing out any one team.

Communication

Traditionally, communication between a mine rescue team and the

fresh air base and command center required great lengths of copper wire. In this MERD, a new wireless communication system was employed. MSHA maintains two massive mobile units equipped with wireless commu-



IWT. These mobile units are stationed in

Pittsburgh PA and Denver CO. MSHA's Tech support group maintains this equipment and provides training to mine rescue teams across the country. They were able to put their equipment to good use this month in New Mexico. The system provides for voice communication, team tracking, and data (gas reading) transmission as well as mapping software.

We believe that this is the first application of the equipment in a shaft non-metal mine.

At the core of the system is portable gateway and Mine Rescue Dispatch station that can be set-up at a fresh air base. A mine rescue team enters the mine with handsets that resemble

walkie-talkies and portable mesh nodes and antennas that can be dropped periodically to maintain a radio signal back to the fresh air

base. A mesh interface designed for MX6 gas detectors communicates through the handset and back to the dispatch station. Mapping software loaded onto the dispatch station monitors the team's position gas readings, and physical findings reported by the team.



Communication to and from a surface command center can be accomplished via wireless signal projected through the shaft, or more efficiently by connecting to pre-existing or site-dropped fiber interfaces fiber optic switches.



From Page 2

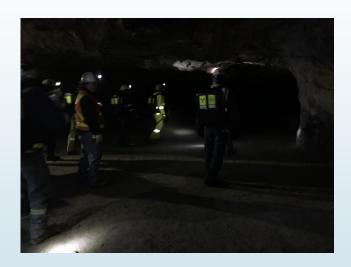
While a bit cumbersome, the communication package greatly expedites and improves the collection of vital information from underground exploration for the decision-makers in the command center.

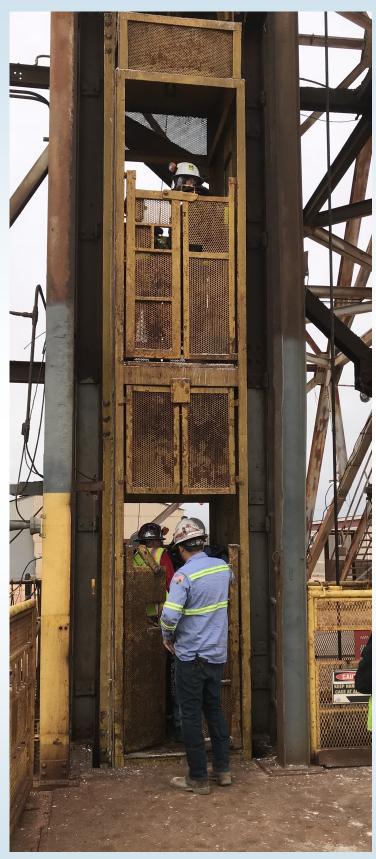
Lessons

The value of any drill (including a MERD) is in honing skills and techniques in a simulated environment, and learning from the experiences in a way that will enhance the effectiveness in a real emergency. The January 3 & 4 MERD in Eddy County provided the opportunity to learn a great deal about incident management, teamwork, and communications. Should those emergency skills be needed, these teams will be prepared.



Thanks to the miners, and leadership at Mosaic, Intrepid and WIPP. Special thanks to the folks at MSHA, the NM Bureau of Mine Safety and the Southwestern Regional Mine Rescue Association who planned and executed this exercise.





Politically Correct or Effective?

John Drebinger December 13, 2017

For over 27 years as a safety speaker, I have been teaching the material in this week's newsletter. I mention this because most truths about communication are timeless. With all the cultural and political tension we observe today it might seem this was written as a response to that tension. However, in fact, it is one more look into how to be the most effective safety motivational speaker possible.

So how important is it to be politically correct? As a safety motivational speaker, I can tell you it is critical. I wish you didn't have to be careful how you say something but throughout the ages it has always been important.

Why Is It Important?

It is all about effectiveness. If you want your safety message to be effective, you must be sure it doesn't offend members of your audience. When a safety speaker says or does something people find offensive, it changes the value of their message. No matter how valuable your content is, it will be valued less if you offend your audience.

This is because the messenger is a vital part of the message. To illustrate, let's imagine the audience has a rating of you that equals 100. That is also the highest value of any message you could deliver. The more an audience likes and respects the speaker, the more effective their message. That is part of the purpose of a good safety speaker's introduction. The person introducing the safety motivational speaker is telling the audience how relevant and what level of expertise the speaker brings to them.

Once they are introduced or when they begin it is up to them whether that opinion is reinforced or lowered. Content and perceived value of the information shared are important, but they can be easily undermined by an offensive statement. If a speaker uses a word or phrase which is offensive to someone in the audience that someone drops their opinion of the speaker immediately. Once this drops, the value of the message is weakened, also. That's presuming they are still even listening at that point.

I used to think the only problem was the degradation of their opinion of the speaker and their message. I have since learned there is a bigger issue.

Internal Dialogue

When a safety speaker says the wrong thing, the offended audience member begins talking to themselves. "Why did they say that?" "Don't they know that's inappropriate?" "Why did the company allow them to speak?" "Should I complain to HR?"

Guess what? While they are having this internal dialogue they are not hearing the message you are giving. It is a double problem. First, they think less of the speaker and their message and second, they aren't hearing much of the message at all.

It's About Effectiveness

Once again, it isn't about being politically correct; it's about effectiveness. It also has been a real boost to my career as a safety speaker. Early in my career as a safety motivational speaker, I asked a client what was the main reason they had chosen me over the other safety speakers they looked at. They said, "Because I knew you wouldn't get me fired." I was surprised and pleased. It was great to know my reputation for being effective and appropriate was well known in the marketplace.

I'll be, "Watching Out For Everyone's SafetyTM"

Safety Speaker John Drebinger

© 2017 John Drebinger Presentations
Permission to use granted when credited and contact information included. www.drebinger.com +1 209.745.9419

MSHA PROGRAM POLICY MANUAL—COAL



§75.1316 Preparation before blasting.

(a)(1) All nonbattery-powered electric equipment, including cables, located within 50 feet from boreholes to be loaded with explosives or the sites where sheathed explosive units are to be placed and fired shall be deenergized or removed to at least 50 feet from these locations before priming of explosives. Battery-powered equipment shall be removed to at least 50 feet from these locations before priming of explosives.

(2) As an alternative to paragraph (a)(1) of this section, electric equipment, including cables, need not be deenergized or removed if located at least 25 feet from these locations provided stray current tests conducted prior to priming the explosives detect stray currents of 0.05 ampere or less through a 1-ohm resistor.

Continued on page 5

From Page 4

- (i) Tests shall be made at floor locations on the perimeter, on energized equipment frames and on repaired areas of energized cables within the area between 25 to 50 feet from the locations where the explosives are to be primed.
- (ii) Tests shall be conducted using a blasting multimeter or other instrument specifically designed for such use.
- (3) The blasting cable or detonator circuitry shall not come in contact with energized electric equipment, including cables.
- (b) Before loading boreholes with explosives, each borehole shall be cleared and its depth and direction determined.
- (c) No borehole drilled beyond the depth of cut coal shall be loaded with explosives unless that portion of the borehole deeper than the cut is tamped with noncombustible material.
- (d) When two working faces are approaching each other, cutting, drilling and blasting shall be done at only one working face at a time if the two faces are within 25 feet of each other.

[35 FR 17890, Nov. 20, 1970, as amended at 56 FR 51616, Oct. 11, 1991]

Program Policy Manual (PPM)

75.1316 Preparation Before Blasting Paragraph (d) of 30 CFR 75.1316 addresses blasting activities at approaching working faces when the faces are within 25 feet of each other. Some concerns have been expressed as to whether this provision restricts mining of crosscuts to one direction only. This paragraph recognizes that crosscuts could be developed from both directions simultaneously.

It is designed to protect against premature detonation of explosives that can occur by accidentally cutting or drilling into loaded boreholes. The 25-foot limitation is based on the size of cutting machine cutter bar and drill steel lengths currently used by the coal mining industry. The hazard addressed is that if cutting and drilling occur simultaneously at two approaching faces with less than 25 feet of separation, drilling could be completed and borehole loading operations started at one face while cutting or drilling activities continue at the other face.

Under these circumstances, limiting mining activities to only one face at a time will prevent accidents resulting from the cutting or drilling at one face contacting loaded boreholes in an approaching face, especially if mine communications fail or when the space separating approaching faces is less than anticipated.

§77.1303 Explosives, handling and use.

- (a) Persons who use or handle explosives or detonators shall be experienced men who understand the hazards involved; trainees shall do such work only under the supervision of and in the immediate presence of experienced men.
- (b) Blasting operations shall be under the direct control of authorized persons.
- (c) Substantial nonconductive closed containers shall be used to carry explosives, other than blasting agents to the blasting site.
- (d) Damaged or deteriorated explosives or detonators shall be destroyed in a safe manner.
- (e) Where electric blasting is to be performed, electric circuits to equipment in the immediate area to be blasted shall be deenergized before explosives or detonators are brought into the area; the power shall not be turned on again until after the shots are fired.
- (f) Explosives shall be kept separated from detonators until charging is started.
- (g) Areas in which charged holes are awaiting firing shall be guarded, or barricaded and posted, or flagged against unauthorized entry.
- (h) Ample warning shall be given before blasts are fired. All persons shall be cleared and removed from the blasting area unless suitable blasting shelters are provided to protect men endangered by concussion or flyrock from blasting.
- (i) Lead wires and blasting lines shall not be strung across power conductors, pipelines, railroad tracks, or within 20 feet of bare powerlines. They shall be protected from sources of static or other electrical contact.
- (j) For the protection of underground workers, special precautions shall be taken when blasting in close proximity to underground operations, and no blasting shall be done that would be hazardous to persons working underground.
- (k) Holes shall not be drilled where there is danger of intersecting a charged or misfired hole.
- (1) Only wooden or other nonsparking implements shall be used to punch holes in an explosive cartridge.
- (m) Tamping poles shall be blunt and squared at one end

5

From Page 5

and made of wood, nonsparking material, or of special plastic acceptable to the Mine Safety and Health Administration.

- (n) Delay connectors for firing detonating cord shall be treated and handled with the same safety precautions as blasting caps and electric detonators.
- (o) Capped primers shall be made up at the time of charging and as close to the blasting site as conditions allow.
- (p) A capped primer shall be prepared so that the detonator is contained securely and is completely embedded within the explosive cartridge.
- (q) No tamping shall be done directly on a capped primer.
- (r) Detonating cord shall not be used if it has been kinked, bent, or otherwise handled in such a manner that the train of detonation may be interrupted.
- (s) Fuse shall not be used if it has been kinked, bent sharply, or handled roughly in such a manner that the train of deflagration may be interrupted.
- (t) Blasting caps shall be crimped to fuses only with implements designed for that specific purpose.
- (u) When firing from 1 to 15 blast-holes with safety fuse ignited individually using hand-held lighters, the fuses shall be of such lengths to provide the minimum burning time specified in the following table for a particular size round:

Number of holes in a round	Minimum burning time, minutes
1	2
2 to 5	2 2/3
6 to 10	3 1/3
11 to 15	5

In no case shall any 40-second-per-foot safety fuse less than 36 inches long or any 30-second-per-foot safety fuse less than 48 inches long be used.

(v) The burning rate of the safety fuse in use at any time

shall be measured, posted in conspicuous locations, and brought to the attention of all men concerned with blasting.

- (w) Electric detonators of different brands shall not be used in the same round
- (x) Adequate priming shall be employed to guard against misfires, increased toxic fumes, and poor performance.
- (y) Except when being tested with a blasting galvanometer:
 - (1) Electric detonators shall be kept shunted until they are being connected to the blasting line or wired into a blasting round.
 - (2) Wired rounds shall be kept shunted until they are being connected to the blasting line.
 - (3) Blasting lines shall be kept shunted until immedately before blasting.
- (z) Completely wired rounds shall be tested with a blasting galvanometer before connections are made to the blasting line.
- (aa) Permanent blasting lines shall be properly supported, insulated, and kept in good repair.
- (bb) At least a 5-foot airgap shall be provided between the blasting circuit and the power circuit.
- (cc) When instantaneous blasting is performed, the double-trunkline or loop system shall be used in detonating-cord blasting.
- (dd) When instantaneous blasting is performed, trunklines, in multiple-row blasts, shall make one or more complete loops, with crossties between loops at intervals of not over 200 feet.
- (ee) All detonating cord knots shall be tight and all connections shall be kept at right angles to the trunklines.
- (ff) Power sources shall be suitable for the number of electrical detonators to be fired and for the type of circuits used.
- (gg) Electric circuits from the blasting switches to the blast area shall not be grounded.
- (hh) Safety switches and blasting switches shall be labeled, encased in boxes, and arranged so that the covers of the boxes cannot be closed with the switches in the through-circuit or firing position.
- (ii) Blasting switches shall be locked in the open position, except when closed to fire the blast. Lead wires shall not be connected to the blasting switch until the shot is ready to be fired.

Continued on page 7

From Page 6

- (jj) The key or other control to an electrical firing device shall be entrusted only to the person designated to fire the **round or rounds.**
- (kk) If branch circuits are used when blasts are fired from power circuits, safety switches located at safe distances from the blast areas shall be provided in addition to the main blasting switch.
- (II) Misfires shall be reported to the proper supervisor and shall be disposed of safely before any other work is performed in that blasting area.
- (mm) When safety fuse has been used, men shall not return to misfired holes for at least 30 minutes.
- (nn) When electric blasting caps have been used, men shall not return to misfired holes for at least 15 minutes.
- (00) If explosives are suspected of burning in a hole, all persons in the endangered area shall move to a safe location and no one should return to the hole until the danger has passed, but in no case within 1 hour.
- (pp) Blasted areas shall be examined for undetonated explosives after each blast and undetonated explosives found shall be disposed of safely.
- (qq) Blasted areas shall not be reentered by any person after firing until such time as concentrations of smoke, dust, or fumes have been reduced to safe limits.
- (rr) In secondary blasting, if more than one shot is to be fired at one time, blasting shall be done electrically or with detonating cord.
- (ss) Unused explosives and detonators shall be moved to a safe location as soon as charging operations are completed.
- (tt) When electric detonators are used, charging shall be stopped immediately when the presence of static electricity or stray currents is detected; the condition shall be remedied before charging is resumed.
- (uu) When electric detonators are used, charging shall be suspended and men withdrawn to a safe location upon the approach of an electrical storm.

Program Policy Manual (PPM)

77.1303 Explosives; Handling and Use

The following are guidelines for enforcing paragraph (g):

In the event the explosive haulage vehicle has to be moved within the blasting area, precautions shall be taken to avoid driving the vehicle over or dragging hoses over firing lines, detonator wires or explosive materials. The driver, in moving the vehicle, shall obtain the assistance of a second person to guide his/her movement.

During charging and firing, only the work activities associated with the explosives operation shall be permitted in the blasting area. Blasting operations shall be under the direct control of authorized persons. Boreholes shall be stemmed immediately after charging and shots, shall be fired as soon as practical after charging has been completed.

Holes to be blasted shall be charged as near to blasting time as practical, and such holes shall be blasted as soon as possible after charging has been completed. Where required to postpone the firing of the blast, the provisions of paragraph (g) shall be followed.

Paragraph (j) governs surface drilling and blasting when there is a danger that these operations can affect the active workings of an underground coal mine. In such instances, the appropriate orders should be issued to ensure that underground miners will be withdrawn from the endangered area before blasting is done.

To prevent damage to detonating cord, as addressed in paragraph (r), detonating cord downlines used in the charging of boreholes should be cut from the spool after the primed charge is in position.

Paragraph (qq) requires that, before entering the blast area, personnel shall make certain that it is completely free of visible reddish brown fumes, an indication of a highly toxic concentration of nitrogen dioxide gas.

MSHA recognizes that the use of ANFO, cast primers, and detonating cord, provides one of the safest means of blasting available. However, it should be emphasized that detonating cord and cast primers contain explosives and are designed to explode. Consequently, they should be used with respect and common sense afforded an explosive, and it must be kept in mind that every explosive can be detonated under certain critical conditions.

From Page 7

MSHA PROGRAM POLICY MANUAL—M/NM

§56.-5716003 Storage of hazardous materials.

Materials that can create hazards if accidentally liberated from their containers shall be stored in a manner that minimizes the dangers.

§56/57.16004 Containers for hazardous materials.

Containers holding hazardous materials must be of a type approved for such use by recognized agencies.

Program Policy Manual (PPM)

56/57.16003 Storage of Hazardous Materials and 56/57.16004 Containers for Hazardous Materials

Standard 56/57.16003 requires that materials that can create hazards if accidentally liberated from their containers shall be stored in a manner that minimizes the dangers. Standard 56/57.16004 requires that hazardous materials shall be stored in containers of a type approved for such use by recognized agencies and that such containers shall be labeled appropriately.

Potential hazardous materials exist and are used throughout most mining and milling processes. Such materials must be properly and securely stored, based on the type of potential hazard (e.g., toxic, corrosive, flammable). The container must be appropriately labeled showing the contents.

Commercially supplied materials are generally labeled by the distributor. Unstable cabinets and shelves containing hazardous chemicals shall be securely fastened and made stable.

Corrosive substances are those that cause visible destruction or irreversible alterations to the body tissue on contact. Acids and corrosive chemicals shall not be stored with alkalies or solvents or stored on shelves above eye level. Common corrosive chemicals are mineral acids, e.g., hydrochloric (HCl), hydrofluoric (HF), nitric (HNO3), sulfuric (H2SO4), acetic (CH3COOH), etc., and basic solutions, e.g., sodium (NaOH), potassium (KOH) and ammonium (NH4OH) hydroxides, etc.

Concentrations of solvent and other flammable vapors shall be kept at a minimum by ventilation of storage areas. Flammables shall be stored in a cool place away from all ignition sources, such as open flames, hot plates and sparking electrical equipment. There shall be no smoking in areas of solvent use or in any other flammable storage areas.



Mining Safety Board

The Mining Safety Board met on September 8 in Albuquerque following the NMMA convention. The board is looking into amending some of the rules for certification and recertification of coal mine officials. Jeff Gordon, Chair formed a committee for the purpose of drafting revised rules. For a copy of the draft meeting minutes, contact Deb McVey at Debora.mcvey@nmt.edu or 575-835-5460



The next scheduled MSB meeting is planned for 10:00 a.m. February 1, 2018 at the Farmington Civic Center. Inquiries can be directed to Board Chair Jeff Gordon at:

jeffgordon.nmmsb@yahoo.com.

MSHA WINTER ALERT

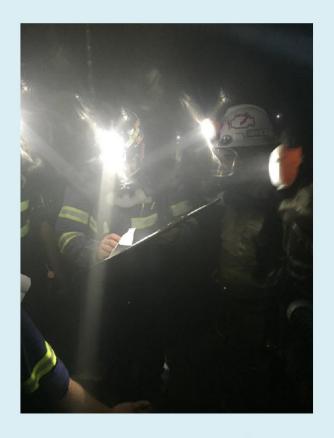
Surface Coal Mines

- Examinations are your first line of defense o Check highwalls, benches, and roadways, especially after each rain, freeze or thaw
 - o Examine equipment for exhaust leaks
 - o Maintain equipment to operate safely **in winter weather**
- Roadways
 - o Remove snow and ice
 - o Allow ample space between vehicles
 - o Slow down and be patient
- Walkways
 - o Keep clear of ice and snow
 - o Remove all slip and trip hazards
 - o Apply sand to maintain traction
 - o Wear foot gear that grips



www.msha.gov askmsha@dol.gov

Report Accidents & **Hazardous Conditions** Twitter: @MSHA_DOL 1-800-746-1553







2018 Southwestern Regional Mine Rescue Contest

The annual Southwestern Regional Mine Rescue Contest will be held at the Walter Pecos River Village Conference Center in Carlsbad, NM on <u>April 9-12, 2018</u>.

For More Information Contact:

Michael Ackman
575-628-6464
Michael.ackman@mosaicco.com

Fall Protection Complete the crossword below BUREAU OF MINE SAFETY Created with TheTeachersCorner.net Crossword Puzzle Generator 2. Fall arrest equipment is designed to reduce the force 1. The load-bearing point overhead for attachment of a fall arrest system in a fall 4. This type of lifeline may be required for short fall is often located near the lanyard attachment to the body harness distances 6. Multiple lanyards may be required for 5. Device installed on stairways to offer support when fall protection ascending or descending 9. Horizontal structure designed to prevent access to the 7. In most cases, fall arrest equipment must be replaced when impacted by a fall edge of a surface 11. Connecting device between a body harness and an 8. Fall arrest equipment is intended to prevent contact anchor point with the 10. Vertical or horizontal line that may be used as a 13. Procedure used before using PPE to ensure functionality flexible anchor location 16. Before using fall arrest equipment, develop a 12. Examples are bent hardware, torn stitching, and burned webbing attachment point on a body harness and hook of the locking variety used to attach a lanyard to a body harness some anchor points 19. PPE device worn on the body to support the impact 15. The anchor point must support 5 of fall arrest pounds per person

The correct answers will be attached to the archived January Newsletter on the BMS website

Safety

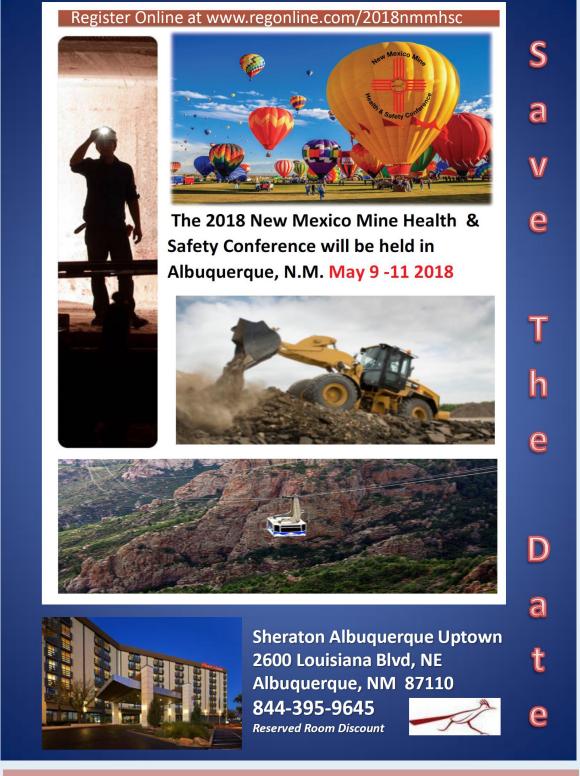
arrest protection

20. Special devices may be required for fall arrest

protection on _____ and other devices

<u>Across</u>

_ are no longer accepted for fall



The NM Bureau of Mine Safety Website has more information about the NMMSHC, registration, exhibiting, scholarships, and the annual Outstanding Contribution to Safety (OCS) Award.

http://www.bmi.state.nm.us/navConf.htm



It only takes a few minutes

MSHA Immediate Reporting *

(within 15-minutes 800 746 1553)

- (1) A death of an individual at a mine:
- (2) An injury to an individual at a mine which has a reasonable potential to cause death;
- (3) An entrapment of an individual for more than 30 minutes or which has a reasonable potential to cause death:
- (4) An unplanned inundation of a mine by a liquid or gas;
- (5) An unplanned ignition or explosion of gas or dust;
- (6) In underground mines, an unplanned fire not extinguished within 10 minutes of discovery; in surface mines and surface areas of underground mines, an unplanned fire not extinguished within 30 minutes of discovery; (7) An unplanned ignition or explosion of a blasting agent or an explosive;
- (8) An unplanned roof fall at or above the anchorage zone in active workings where roof bolts are in use; or, an unplanned roof or rib fall in active workings that impairs ventilation or impedes passage:
- (9) A coal or rock outburst that causes withdrawal of miners or which disrupts regular mining activity for more than one hour:
- (10) An unstable condition at an impoundment, refuse pile, or culm bank which requires emergency action in order to prevent failure, or which causes individuals to evacuate an area; or, failure of an impoundment, refuse pile, or culm bank; (11) Damage to hoisting equipment in a shaft or slope which endangers an individual or which interferes with use of the equipment for more than thirty minutes: and
- for more than thirty minutes; and (12) An event at a mine which causes death or bodily injury to an individual not at the mine at the time the event occurs.
- *Underlined text omitted from NM U/G reporting requirement.

NM Underground Immediate Reporting ** (within 30-minutes 866 761 6039)

- (1) A death of an individual at a mine:
- (2) An injury that has a reasonable potential to cause death to an individual at a mine;
- (3) An entrapment of an individual that has a reasonable potential to cause death;
- (4) An unplanned inundation of a mine by a liquid or gas;
- (5) An unplanned ignition or explosion of gas or dust;
- (6) An unplanned fire in an underground mine that is not extinguished within 10 minutes of discovery of an unplanned mine fire within the surface area of an underground mine, that is not extinguished within 30 minutes of discovery:
- (7) An unplanned ignition or explosion of a blasting agent or an explosive:
- (8) An unplanned roof fall at or above the anchorage zone in active workings where roof bolts are in use or, an unplanned roof or rib fall in active workings that impairs ventilation or impedes passage;
- (9) A coal or rock outburst that causes withdrawal of miners or which disrupts regular mining activity for more than one hour:
- (10) An unstable condition at an impoundment, refuse pile, or culm bank which requires emergency action in order to prevent failure, or which causes individuals to evacuate an area; or, failure of an impoundment, refuse pile, or culm bank; (11) Damage to hoisting equipment in a shaft or slope which endangers an individual; or
- (12) An event at a mine that causes death or bodily injury to an individual not at the mine at the time the event occurs.
- **Includes the surface areas of underground mines.

NM Surface Only Immediate Reporting (within 30-minutes 866 761 6039)

- (1) A death of an individual at a mine:
- (2) An injury that has a reasonable potential to cause death to an individual at a mine;
- (3) An entrapment of an individual that has a reasonable potential to cause death;

(7) An unplanned ignition or explosion of a blasting agent or an explosive;

- (10) An unstable condition at an impoundment, refuse pile, or culm bank which requires emergency action in order to prevent failure, or which causes individuals to evacuate an area; or, failure of an impoundment, refuse pile, or culm bank;
- (12) An event at a mine that causes death or bodily injury to an individual not at the mine at the time the event occurs.