

NEW MEXICO BUREAU OF MINE SAFETY

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

February 2018 Newsletter

Three Reminders, Safety Must Be A Value—Apollo One

John Drebinger January 28, 2018

For the past four years, I have had the privilege of attending the memorial service held at Pad 34 at Cape Canaveral Air Force Station in Florida. The moving service begins at 6:00pm and concludes with Taps being played at 6:31 PM, which was the time the fire began on January 27, 1967. At that moment, three Ameri-

can heroes, Gus Grissom, Ed White, and Roger Chaffee, were taken from their families. These three men served their country in the military prior to becoming astronauts. They clearly were willing to give



their life for their country, but in this case, their leaders in the space program let them down. Leaders must value safety; there is no other option!

As a safety speaker and safety professional, I go to Pad 34 whenever I visit Cape Canaveral Air Force Station (CCAFS). It is a reminder to me of what happens when leaders do not hold safety as a personal and organizational value.

Challenger and Columbia

Two other reminders of leadership failures when it comes to safety are the tragedies of the Challenger Disaster, January 28, 1986, and the Columbia Disaster, February 1, 2003. All three have something in common. There were warnings before each incident that a safety issue existed. It was known the 100% oxygen design of the Apollo spacecraft was dangerous but management chose to move forward and not correct that situation even though it was a perilous safety issue. In the case of Challenger, many engineers warned against launching at the freezing temperatures being experienced the morning of January 28th. Sadly, in this case, management pressured an engineer to sign off that it was safe to proceed. Finally, in the case of Columbia, it was known that foam falling from the external tank was a hazard to the orbiter yet no in orbit repair or rescue options had been created

Leaders Must Have Safety As A Value

The real test of safety as a value is when leadership stops work and makes corrections before lives are lost. It is the hope of everyone at the memorial service that lessons learned will save lives in the future. In my opinion, the secret is to realize the lesson learned is not the technical fix but the core value that no project should continue until a safe alternative is created.

Thank you as a safety team member or safety professional for all you do to make sure everyone goes home safely everyday.

Thank you for convincing management and employees they have the authority to stop any job until it is safe to continue. If I can be of any service to you in getting this message to people please give me a call at 209-745-9419.

© 2018 John Drebinger Presentations Permission to use granted when credited and contact information included. <u>www.drebinger.com +1 209.745.9419</u>

M/NM Fatal Injury January 25, 2018

On January 25, an Iowa miner at a sand and gravel operation was hauling material from the pit to a stockpile using a Valvo articulating haul truck. The truck crossed the berm and dropped approximately 20-feet into an ice covered pond. The cab was totally submerged.

Coal Fatal Injury February 6, 2018

An underground West Virginia miner was killed in a ground control incident on February 6. Reportedly the electrician was struck by a rib roll while working on a continuous miner.

SEE HERE!

One of my favorite slogans is: "A good workplace exam or a pre-op equipment inspection is the most important things that you do each day for safety." Knowing the condition of the work environment and the equipment you are using gives you the opportunity to control events rather than letting events control you. From an accident prevention perspective, there are three distinct steps. Each is critical in protecting you and our coworkers.

- 1) Identify the various forms of potentially hazardous energy
- 2) Predict how that energy may affect your safety
- 3) Take the necessary steps to exercise control of hazardous energy

In this article, let's consider just the first step.

Looking vs. Seeing

The distinction between looking and seeing may be best illustrated by these cartoons. Gender bias aside, the cartoon depicts the act of looking by two teenage boys and of seeing by two teenage girls. Looking is a physical act of directing your eyes toward an object. Seeing is the mental task of recognizing, evaluating, organizing, interpreting, and evaluating. These are some of the principles identified in Visual Literacy.

Seeing seems simple enough, but we do often neglect to really see what is before us. Studies show that at any given time, we only see about 10% of what we think we see. The rest is filled in with what our experience tells us is probably there.

There are two effective tools that you can use to help support the task of actually seeing.

- 1) Describe what you see—out loud. Get over the self-conscious reflex.
- 2) Take enough time to see. Especially in complex environments such as shops, machinery and processing areas; it will take some time to see everything.

If you take both the time and effort to actually see what's in the workplace, you will find conditions and hazards that you never would have found in a "walk-through".

Randy K Logsdon, CMSP NM State Mine Inspector









§75.400 Accumulation of combustible materials.

Coal dust, including float coal dust deposited on rock-dusted surfaces, loose coal, and other combustible materials, shall be cleaned up and not be permitted to accumulate in active workings, or on diesel-powered and electric equipment therein.

75.400 Accumulation of Combustible Materials Experience and tests have shown that accumulations of coal dust can contribute greatly to the propagation and severity of mine explosions. Such accumulations are also potential fire hazards since they are more readily ignitable and, once ignited, are more difficult to control and extinguish. The intent of this Section is to prevent the accumulations of the specified combustible materials in order to reduce the dangers of mine fires and explosions.

Coal dust means particles of coal that pass a No. 20 sieve. It is this fraction of the coal that participates in the dust explosion reaction. Loose coal means coal fragments larger in size than those passing a No. 20 sieve.

Tests have shown that intermittent piles of coal dust are more hazardous than smooth layers because the irregular piles are eroded more readily by the air movement generated during an explosion. As little as two 300-pound piles, under experimental conditions, caused an explosion to propagate when the entry otherwise was adequately rock-dusted.

Coal dust or coal and loose coal accumulations present a fire as well as an explosion hazard. The broken coal has considerably more surface area per unit mass than solid coal. For example, should an electric cable fail and cause an arc, the probability of igniting accumulations is greater than igniting solid coal. Also, when broken coal is ignited, fire propagates faster than in solid coal. As another example, if hydraulic oil is spilled into broken coal, the broken coal would ignite more easily and propagate flame faster than a similar spill on the smooth floor or against the coal rib.

Accumulations of coal dust, loose coal, or the combination of the two offer serious fire and explosion hazards and must be removed from the mine if, in the judgment of the inspector, they would lead to an intensification or spreading of a fire or an explosion. In evaluating whether the coal dust and loose coal would lead to an intensification or spreading of a fire or an explosion, the inspector should consider all the facts concerning the deposit. For example, float coal dust, loose coal and/or coal dust deposited near working faces and in active haulage entries, where sources of ignition are likely to be, are more hazardous than similar deposits in back entries. However, the remoteness of back entries is not necessarily a safeguard. Stoppings that normally isolate back entries may be destroyed by the force of an explosion, and accumulations of float coal dust, loose coal or coal dust in the back entries would add fuel to the flame.

In citing a violation, the inspector should describe fully the conditions and practices, such as the location, dimensions, etc. Imminent danger conditions normally can be considered to exist when accumulations of coal dust, float coal dust, loose coal, and other combustible materials are exposed to probable explosion and fire ignition sources, and the conditions observed could reasonably be expected to cause death or serious physical harm to a miner if normal mining operations were permitted to proceed in the area before the dangerous conditions are eliminated. There may be times when the inspector's interpretation of what is an accumulation of float coal dust, loose coal and coal dust and/or other combustible materials will differ with the opinion of others. However, the inspector should base his decision upon the facts surrounding each occurrence, and document such facts as the dimensions, type, specific location, and all other related factors. The inspector's decision as to what is an accumulation must be an objective one based on the facts or circumstances surrounding each occurrence.

Experience has demonstrated that the loading of loose coal caused by sloughing ribs creates a hazardous condition in that the pillar size can be substantially reduced and the width of the entry or room dangerously increased; therefore, such loose coal shall not be considered accumulations of combustible material if such material is rendered inert by heavy applications of rock dust. However, such loose coal shall not be permitted to accumulate in the roadways or outby timberlines.

§77.202 Dust accumulations in surface installations.

Coal dust in the air of, or in, or on the surfaces of, structures, enclosures, or other facilities shall not be allowed to exist or accumulate in dangerous amounts.

77.202 Dust Accumulations in Surface Installations

This section is not meant to control dust from a health standpoint. It is meant to control dangerous quantities of coal dust that would create a fire or explosion hazard.

§77.1104 Accumulations of combustible materials.

Combustible materials, grease, lubricants, paints, or flammable liquids shall not be allowed to accumulate where they can create a fire hazard.

77.1104 Accumulations of Combustible Materials

This Section, in essence, refers to good housekeeping. Excessive quantities of coal or coal dust shall not be permitted to accumulate, particularly where other highly flammable materials are present.



MSHA PROGRAM POLICY MANUAL—M/NM

§56./57.4109 Unguarded conveyors with adjacent trav-elways.

Unguarded conveyors next to the travelways shall be equipped with—

(a) Emergency stop devices which are located so that a person falling on or against the conveyor can readily deactivate the conveyor drive motor; or

(b) Railings which—

(1) Are positioned to prevent persons from falling on or against the conveyor;

(2) Will be able to withstand the vibration, shock, and wear to which they will be subjected during normal operation; and

(3) Are constructed and maintained so that they will not create a hazard.

<u>56/57.14109</u> Unguarded Conveyors With Adjacent Travelways

Sections 56/57.14109 require unguarded conveyors next to travel-ways to be equipped with emergency stop devices or railings. A travelway is defined in 30 CFR §§ 56/57.2 as a passage, walk or way regularly used and designated for persons to go from one place to another. If an unguarded conveyor has travelways on each side of it, both unguarded sides must be equipped with emergency stop devices or railings.

Under Sections 56/57.14109(a), emergency stop devices must be located so that a person falling on or against the conveyor can readily deactivate the conveyor drive motor. MSHA expects that a miner would be able to readily reach the emergency stop device to activate it and that the device would be located along the portion of the unguarded conveyor that is adjacent to a travelway.

Under Sections 56/57.14109(b), railings must: (1) be positioned to prevent persons from falling on or against the conveyor; (2) withstand the vibration, shock, and wear to which it will be subjected during normal operation; and (3) be constructed and maintained so that it will not create a hazard. MSHA expects that railings would be located along the portion of the unguarded conveyor that is adjacent to a travelway.

Neither the conveyor installation nor its framework is considered a railing for the purpose of these standards irrespective of its height or conformance with standard railing heights. Sections 56/57.14109 do not apply to unguarded conveyors which are not next to travelways, including overhead conveyors, where there is no reasonable possibility that miners will come into contact with system components (e.g., idlers, conveyor belt) of the conveyor.

Mining Safety Board

The Mining Safety Board met on February 1 in Farmington. The board is proposing amending some of the rules for certification and recertification of coal mine officials. A copy of the proposed changes will be posted in the New Mexico Register and is printed on page 5 of this newsletter or on the BMS website <u>numinesafety.com</u>

For a copy of the draft meeting minutes, contact Deb McVey at Debora.mcvey@nmt.edu or 575-835-5460

The next meeting is scheduled for 1:00 p.m. on May 8, 2018 at the Workman's Compensation Bldg., 2410 Center Ave., Albuquerque. A public hearing for comment regarding the proposed rules is planned for that meeting.



Advance comments may be directed to the Office of the State Mine Inspector:

> Bureau of Mine Safety New Mexico Tech 801 Leroy Place, Socorro, NM 87801 randy.logsdon@nmt.edu

PROPOSED CHANGES TO THE NEW MEXICO ADMINISTRATIVE CODE TITLE 19 Chapter 6 Part 4 CERTIFICATION OF COAL MINE OFFICIALS

TITLE 19NATURAL RESOURCES AND WILDLIFECHAPTER 6MINE SAFETYPART 4CERTIFICATION OF COAL MINE OFFICIALS

19.6.4.7 DEFINITIONS:

A.

"Board" means the state mining safety board.

B. "Certificate" means a document issued by the state mine inspector, or certifying agency from another state, allowing the holder to be employed as a coal mine official in the state of origin.

C. "CFR" means Code of Federal Regulations.

D. "Days" means calendar days.

E. "Inspector" means the state mine inspector.

F. "Mining engineering graduate" means a person having a B.S. degree in mining or mineral engineering from an accredited college or university.

G. "Official" means coal mine official, including underground <u>coal</u> mine foreman, <u>underground coal</u> mine examiner, <u>general underground coal mine foreman</u>, or surface <u>coal</u> mine foreman. <u>(Table 19.6.4.9)</u>

H. "Revoke" means to permanently invalidate a certification.

I. "Service" means providing any document, paper or pleading to a person either personally or by certified mail, return receipt requested.

J. "Suspend" means to invalidate a certification for a specified period of time. 10.6.4.7 NMAC N 00/30/08: A 10/01/101

[19.6.4.7 NMAC - N, 09/30/08; A, 10/01/10]

19.6.4.9 METHODS AND REQUIREMENTS OF CERTIFICATION:

A. The state mine inspector may recognize the foreman's or mine examiner's certificate issued by another state and issue certificates accordingly when:

(1) the state mine inspector reviews the certification requirements of another state and determines that the requirements are equivalent or more stringent than New Mexico's, and are pertinent to the mining conditions found in New Mexico's coal mines; or

(2) an agreement of reciprocity is signed between the state mine inspector and the director of the certification agency from another state.

B. Persons with four or more years of experience in or about underground coal mines, and providing underground foreman certification from another state program or persons with four or more years of experience in or about surface coal mines, and providing surface foreman certification from another state program, meet the requirements for testing.

C. The state mine inspector shall hold written examinations, at times, dates and places to be given out at least sixty days in advance, to all persons desiring to secure mine foreman certificates or mine examiner certificates. <u>Alternatively, at the discretion of the state mine inspector, such examinations may be administered by appointment.</u>

Continued on Page 6

From Page 5

D. The state mine inspector shall require that any applicant for examination to the position of mine foreman or mine examiner submit a completed application at least thirty days prior to the examination date and shall meet the experience requirements of this section as summarized in Table 19.6.4.9.. The state mine inspector may require documentation from an applicant supporting his/her qualification and competency. Every person desiring to secure an underground coal mine foreman's certificate and not already in such position or not holding such certificate from another state shall first serve as a mine examiner for six months have regularly performed the duties of an underground coal mine examiner for six months and shall have at least four years of underground coal mine experience to participate in the underground coal mine foreman's examination. Every person desiring to secure a surface coal mine foreman's certificate, and not already holding such certificate from another state, shall have at least four years of surface coal mine experience to participate in the surface coal mine foreman's examination. A person who holds a certificate for surface coal mine foreman who wishes to take the underground coal mine foreman test must have a minimum of four years of experience in underground coal mine workings. A person who holds an underground coal mine foreman certificate and who wishes to participate in the surface coal mine foreman examination must have at least two years of surface coal mine experience. A person who holds an underground coal mine foreman certificate and who wishes to participate in the general underground coal mine foreman examination must have at least two years of surface mine experience or two years of surface experience at an underground mine. Every person desiring to secure an underground coal mine examiner's certificate and not already in such position or not holding such certificate from another state recognized by the state mine inspector, shall have at least two years of underground coal mine experience to participate in the underground coal mine examiner's examination.

E. The state mine inspector may allow a mining engineering graduate <u>or a person with</u> <u>other credentials that attest to advanced competency including applicable experience at non-coal mines to</u> participate in the foreman's or examiner's examination if the mining engineering graduate <u>candidate</u> meets at least one-half of the experience requirements <u>and all other prerequisites</u> listed in Subsections B and D of this section and a mining engineering graduate must pass the underground mine examiner's examination and shall first serve as an underground mine examiner for six months <u>have regularly performed the duties of mine examiner for six months</u> prior to taking the underground mine foreman examination.

F. <u>Table 19.6.4.9 is incorporated into this section as a guide to the prerequisites and areas of responsibility for coal mine officials.</u>

Table 19.6.4.9 on page 7

19.6.4.10 FEES FOR CERTIFICATION AND EXAMINATION: The state mine inspector, after consultation with the mining safety board, may impose fees for examination and certification of officials. Current fees will be posted with examination notice given out as required in Subsection C of 19.6.4.9 NMAC.

[19.6.4.10 NMAC - N, 09/30/08]

19.6.4.11 CERTIFICATION PERIOD AND RECERTIFICATION PROCESS:

A. Certification of officials shall be issued for a period of five years. All officials certified by the state mine inspector prior to June 15, 2007 shall have their certification period extended five years. Each official is required to have retraining as a qualified/certified person on an annual basis from the mine in which they are employed as required in 30 CFR 75.160, 30 CFR 75.161 and 30 CFR 77.107 and 30 CFR 77.107-1. Failure to have re-training as a qualified/certified person on an annual basis may result in suspension of certification. Should a certified official fail to meet the annual training requirement for any reason; or should a certified official be absent from mine employment in New Mexico for a period of one year or more and upon resumption of mine employment in New Mexico; the certified official may appeal to the state mine inspector for reinstatement of active certification. The state mine inspector may require testing, remedial training, interviews, evidence of applicable training, or other criteria to assure competency before re-activating said certification.

Continued on Page 8

Table 19.6.4.9

<u>Certification</u> <u>Title</u>	Qualification *	<u>Authorization</u>
<u>Underground</u> <u>Coal Mine Ex-</u> <u>aminer</u>	2-years underground mining experience, or 1-year underground mining experience and ad- vanced competency, or Equivalent experience and certification from an- other state	Underground areas at underground coal mines
<u>Underground</u> <u>Coal Mine</u> <u>Foreman</u>	 4-years underground mining experience with six months examiner experience, or 2-years underground mining experience with six months examiner experience and advanced competency, or Equivalent experience and certification from an- other state 	<u>Underground areas at</u> <u>underground coal</u> <u>mines</u> -
<u>General Un-</u> <u>derground</u> <u>Coal Mine</u> <u>Foreman</u>	Current NM certification as underground coal mine foreman, and 2-years of experience at surface coal mines or surface areas of under- ground coal mines	Underground areas at underground coal mines Surface areas at under- ground coal mines
Surface Coal Mine Foreman	 <u>4-years surface mining experience, or</u> <u>2-years surface mining experience and advanced competency, or</u> <u>Equivalent experience and certification from another state, or</u> <u>Current NM certification as underground coal mine foreman, and 2-years of experience at surface coal mines or surface areas of underground coal mines</u> 	<u>Surface coal mines</u> <u>Surface areas at under-</u> ground coal mines

*All candidates for certification or recertification must achieve a cumulative score of 80% or higher on the corresponding written exam.

The next meeting of the Mining Safety Board is scheduled for 1:00 p.m. on May 8, 2018 at the Workman's Compensation Bldg., 2410 Center Ave., Albuquerque. A public hearing for comment regarding the proposed rules is planned to coordinate with that meeting.

Advance comments may be directed to the Office of the State Mine Inspector:

Bureau of Mine Safety

New Mexico Tech

801 Leroy Place,

Socorro, NM 87801

From Page 6

B. Each official has the responsibility to notify the state mine inspector of any change in address or change in mine employment within thirty days of such change. Failure to provide current contact information may result in suspension of certification.

C. Certified persons may apply for recertification within twelve months prior to the end of the certification period. Every certification shall automatically expire on the last day of the certification period if the official has not recertified prior to that date. <u>The state mine inspector may extend the certification period for an official for no more than six months to facilitate the recertification process</u>. Recertification will require the applicant to submit an application and appropriate documentation as required by the state mine inspector.

D. Recertification may be done by taking an exam every five years, prior to certification expiration, or an organization may submit an alternative plan for the inspector's approval as follows:

(1) officials taking an exam every five years will follow the same process required for original certification; or

(2) an organization may submit an alternative plan, for the state mine inspector's approval; the alternative plan may be carried out over the five year period; the alternative plan shall include the subjects to be covered, the minimum amount of time per subject, the methods of instruction, and the methods of participant evaluation during process completion; following completion, the applicant shall provide the state mine inspector with verification that all training for the recertification period is current; and

(3) applicants shall submit an application, pay the applicable fee, and provide all appropriate documentation as required by the state mine inspector, before receiving recertification.

19.6.4.12 REFUSAL TO CERTIFY OR RECERTIFY AND SUSPENSION OR REVOCATION OF CERTIFICATION:

A. The inspector may refuse to certify or recertify or may suspend or revoke any certification held or applied for under 19.6.4 NMAC upon grounds that the applicant or certified person:

(1) gave false or forged evidence to the inspector to obtain certification;

- (2) is grossly negligent or incompetent in duties as a certified person;
- (3) has failed to maintain certification;

(4) has violated or aided or abetted any person in a violation of the Federal Mine Safety and Health Act of 1977 or the New Mexico mine safety laws; or

(5) has been disciplined by a state mine regulatory authority in another state that certifies mine personnel.

B. If the inspector contemplates taking any of the actions described in Subsection A of 19.6.4.12 NMAC for any of the reasons provided in that subsection, the inspector shall provide written notice to the applicant or certified person. The notice shall include a statement that the inspector has sufficient evidence that, if not rebutted or explained, will justify the inspector in taking the contemplated action, that indicates the general nature of the evidence and that provides the applicant or certified person at least twenty days to submit written evidence to rebut or explain the allegations.

C. If, after the response period ends, the state mine inspector takes any action of a type specified in Subsection B of 19.6.4.12, the inspector shall serve upon the applicant or certified person a written notice of the action containing a statement that the applicant or certified person may file a petition for review with the mining safety board pursuant to the Mining Safety Act 69-8-1 NMSA 1978.

MSHA Safety Alert Cold Stress Related Injuries

Cold stress is a condition occurring when the body can no longer maintain a normal temperature. The condition can result in very serious cold-related illnesses and injuries, permanent tissue damage or death. Those working in cold environments ---with low temperatures, high wind speed, humidity, and/or contact with cold water or surfaces--- are particularly susceptible to cold stress.



Types of Cold Stress Injuries

- **Hypothermia** occurs when your body begins to lose heat faster than it can be produced. A body temperature that is too low affects the brain, making the victim unable to think clearly or move well.
- **Frostbite** is an injury to the body caused by freezing. Frostbite causes a loss of feeling and can affect the nose, ears, cheeks, chin, fingers, or toes.
- **Trench Foot**, also known as immersion foot, is an injury of the feet resulting from prolonged exposure to wet and cold conditions.

BEST PRACTICES

- Monitor your physical condition and that of your co-workers.
- Wear several layers of clothing for insulation. The first layer should fit snugly against the skin and be made of a nonabsorbent material that wicks away water and keeps skin dry. Clothing should not be too tight as this may restrict movement resulting in a hazardous situation.
- Protect your ears, face, hands and feet in extremely cold or wet weather.
- · Wear waterproof and insulated boots and clothing.
- Wear a hat to reduce the loss of body heat from your head.
- Have extra socks, gloves, hats, jacket, blankets, and a change of clothes available in case the weather becomes much worse or your clothes become wet.
- Use radiant heaters in break areas and limit the amount of time outside.
- · Carry or make available a thermos of hot liquid.
- · Include chemical hot packs in your first aid kit.
- · Avoid touching cold metal surfaces with bare skin.
- Maintain adequate hydration and nutritional requirements.



<u>www.msha.gov</u> askmsha@dol.gov Twitter: @MSHA_DOL Report Accidents & Hazardous Conditions 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



<u>Across</u>

3. Many surface mining operations employ ______-hand traffic patterns

7. Bumper blocks are an example of dump-site

10. A part of the cab enclosure on some off-road mobile equipment

12. Non-mobile equipment used to transport material
14. Must be capable of stopping and holding mobile
equipment with a typical load on steepest grade
15. Without direct visibility to the rear most mobile
equipment will be required to have an automatic back-up

16. Typically used to give warning prior to starting or moving mobile equipment

17. In lieu of a back-up alarm, an automatic _____ may be used at night Created with TheTeachersCorner.net Crossword Puzzle Generator

<u>Down</u>

1. These help mobile equpment operators to see and to bee seen

2. Haul trucks should be loaded to minimize

4. When unattended, buckets, blades and dippers must be lowered to the _____

5. These brakes must be capable of holding mobile equipment with a typical load on the steepest grade
6. Must be performed before operating mobile equipment

8. A way for persons to travel from one place to another9. The person responsible for pre-op mobile equipment inspections

11. M/NM start-up warnings are required for mobile equipment and _____

13. Wheel chocks (or wheels turned into a berm) are required when parked on a _____

18. Material along a roadway that delineates the edge

The correct answers will be attached to the archived February <u>Newsletter</u> on the BMS website <u>nmminesafety.com</u>



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)

 A death of an individual at a mine;
 An injury to an individual at a mine which has a reasonable potential to cause death;
 An entrapment of an individual <u>for more</u> <u>than 30 minutes</u> 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 <u>or</u> which interferes with use of the equipment 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)

 A death of an individual at a mine;
 An injury that has a reasonable potential to cause death to an individual at a mine;
 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.