



# ROCKY MOUNTAIN NEWSLETTER



Sept, 2011

Denver, Colorado

## *Welcome to the Rocky Mountain District Newsletter*

Serving the states of Arizona, Colorado, Kansas, Montana, Nebraska South Dakota, North Dakota, Wyoming, Montana, and Utah

### **ELECTRICAL GROUNDING REQUIREMENTS:**

The proper grounding of electrical equipment is vital in maintaining a safe work environment for the employees, sub-contractors visiting mine sites. Therefore, the following shall be considered minimums in meeting this requirement:

### **FRAME GROUNDING - STATIONARY AND PORTABLE EQUIPMENT:**

All equipment that is supplied electrical power will have the metallic conduits, junction boxes, flex connections and frames that the electrical cable passes through, grounded back to the system grounding medium. All systems

wired with S/O cord shall have a supplemental 4th wire run to serve as the ground circuit conductor where needed. The grounding circuit should follow the metallic path that offers the lowest impedance path back to the circuit protective device. The use of air and waterlines as well as metallic portions of buildings will not be allowed to carry ground fault current, however, they should be electrically grounded. Seal tight connections at motors will have a ground wire from the motor to where the seal tight starts, external with approved ground lugs or clamps.

### **SPECIAL NOTE: PORTABLE EQUIPMENT - POWER SUPPLY SPLICING**

Splices and repairs made on power supply cables including ground

conductors shall be mechanically strong with the electrical conductivity as near as possible to that of the original cable. These areas shall be insulated to a degree of at least equal to that of the original cable, sealed to exclude moisture and be provide with damage protection at the splice point as near as the original to include adequate bonding to the outer cable jacket.

#### **FRAME GROUND TESTING - STATIONARY AND PORTABLE EQUIPMENT:**

Frame ground testing for stationary and portable equipment should be done with a megger (at least 500 volts) on portable equipment, especially portable generators. A grounding grid should be installed around the trailer with 2/0 copper (stranded) wire. The ends should be crimped and a jumper runs to the frame of the trailer. Modified aggregate or a mixture of earth and aggregate should be placed over the wire and a copper ground (minimum #4) should be run from the ground rod to the frame of the stationary equipment. At this point, a megger will be used to check for continuity. This procedure should be used for all stationary equipment at points along conveyor lines, crusher frames, screen decks, entrance to tunnel belts, etc. A record with location and readings will be kept at each plant.

### **Close Proximity Maintenance**

#### **Steps:**

1. Clear the machine or equipment of tools and materials
2. Remove employees from the machine or equipment area
3. Remove the lockout or tag out devices
4. Energize and proceed with testing or positioning
5. De-energize all systems, reapply energy control measures, and verify that the component has been reduced to zero energy state prior to continuing the servicing and/or maintenance

#### **Examples:**

When tracking a conveyor belt, the belt may have to be in operations for adjustments to be made.

If an unexplained sound is heard in a machine, the machine must be in operation in order to locate the source of the sound.

If a machine may have an electrical short, the machine must be energized so that the location of the short can be found.

## To perform CPM procedures:

1. All CPM tasks must be approved by the supervisor on duty and all employees must be authorized.
2. This CPM exception is limited to a maximum of four authorized employees (including the operator) for one CPM task at a time
3. For a two (2) person operation to conduct a CPM task, the operator must have visual contact at all times with the authorized employee performing the CPM task. If constant visual contact cannot be achieved, LOTO is required.
4. Emergency stops for designated equipment must be tested before engaging in CPM
5. During the entire time in which anyone is in close proximity to energize equipment, a dedicated operator must be stationed on that equipment's control panel. Except as provided in #3 above (2 person operation in which visual contact must be achieved at all times), communication with the dedicated operator may be achieved through radio contact for a four (4) authorized employee operation only.
6. A list of CPM tasks will list all instances when CPM procedures are acceptable.

All CPM tasks specific to your plant must have a complete JSA

## Welcome Our New Staff



Kenneth Valentine – Recently promoted to Supervisory Special Investigator



Melvin Lapin – Recently promoted to Mine Safety & Health Supervisor (Denver Field Office)



William "Bill" Enderby - Mine Safety & Health Supervisor (Rapid City Office)



Lori Dvorak- Mine Safety & Health Assistant

## American Miner

The dawn of the morning  
the sunlight the day.  
The darkness the mine, it all goes away.

To descend deep down,  
the rite of their birth.  
rite of a miner,  
value and worth.

You have your lights;  
you have your gold,  
cool in the summer  
warm in the cold.

Cities of iron  
dug with my hands.  
The miner the root  
of modern man.

The dawn of the morning  
never delayed.  
Controlling each danger,  
money their paid.

Busting the rock,  
deep in their soul.  
If death comes a knocking,  
beyond their control.

Honor their name,  
Honor their trade.  
Grace unto God,  
will never fade.

Hold fast to the owner,  
hold fast to the hands.  
The hand of a daughter,  
across our great land.

Pray for the brethren,  
as they risk their own strife.  
With toil we give you,  
the American life.

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### **HELP US KEEP OUR MAILING LIST CURRENT**

*As address corrections or deletions become necessary, please let us know. Changes and/or deletions should be submitted by identifying the 5-digit identification number shown in the upper left-hand corner of your mailing label.*

Additions, changes, deletions should be sent to: Mine Safety & Health Adm. Mary Jackson-Cole: MSHA-M/N P.O. Box 25367, DFC Denver, CO 80225-0367E-mail: [jackson-cole.mary@dol.gov](mailto:jackson-cole.mary@dol.gov)

***Yours in Safety,***

***Richard Laufenberg,  
District Manager***