Summer 2007
Volume 1, Number 2

United States Department of Labor
Mine Safety and Health Administration

Metal and Nonmetal Quarterly

In this Metal and Nonmetal Quarterly:

Happy 4th of July

STOP The Fatalities NOW

Since January of this year 10 metal and nonmetal miners have been fatally injured. MSHA is requesting that we take time out to talk to employees about the causes of these accidents.

We need to take action now to STOP the Fatalities. Sharing information and discussing these recent accidents with the employees can help them to avoid similar accidents in the future.

A significant contributing cause in most accidents is insufficient attention to the task at hand or multi-tasking. Employees must pay careful attention to what is going on around them and to the tasks they are performing. Paying a bit more attention to safety never hurt anybody.

Stand Down for Safety: Inspectors David Hamm, Sid Garay, Oscar Montano and Joseph Summers, of MSHA's Mesa, AZ field office, held a Stand Down for Safety Meeting. More than 600 employees of the Pinto Valley Copper Mine, operated by BHP, contractors, and company officials attended the event. The company officials emphasized to the miners that they are committed to miners' safety and support MSHA's mission to protect them.

Nuggets of Knowledge

Prevent dehydration, by consuming plenty of fluids and foods high in water such as fruits and vegetables. Fluids can also be obtained by not just water but from other beverages and foods.

Beware of Hazardous Heat

As the mercury rises in thermometers, miners should be aware of the dangers that lurk with every degree increase. Heat can become a health risk leading to heat exhaustion, heat stroke, or even death. To not fall victim to these conditions, miners must know how to protect themselves against the heat.

Hydration is an integral part of avoiding heat-related illnesses. The normal recommended amount of water intake is approximately eight to ten cups a day, however when working in hot weather, four cups an hour is advised to kick in the body's cooling system and avoid dehydration.

The vice president of the Sacramento, California Safety Center, Jerry Bach, suggests that someone working in these extreme conditions should consume around two gallons of water per day. Even though water is a good way to cool off and keep hydrated, it is not the only way to prevent heat exhaustion and heat stroke. "[Water] keeps the body cool and able to cope with hot and humid situations, but only to a point" says Bach.

When beginning to work in warm conditions, make sure you do not rush into hard labor. A gradual transition that builds strength, endurance and tolerance of the heat is advised. This is so your body acclimates to working in hot climates, increasing your tolerance threshold. "It actually can take anywhere from four to ten days for the body to get used to the warmer elements" explains Bach. It is imperative that workers stop routinely to take breaks and collect themselves to prevent severe harm.

Heat exhaustion and heat stroke are the two main heat related illnesses. Don't let their similar names fool you- heat stroke and heat exhaustion are different reactions to heat and being able to recognize them will help you alleviate the problem sooner. Heat exhaustion is not as dangerous as heat stroke. Extreme sweating, a pale face, blurred vision, dizziness, headache, and fatigue are all signs of heat exhaustion. If someone is seen with these symptoms, medical attention should be sought right away to prevent death.

Heat stroke symptoms include hot, dry skin, the shivers and having convulsions, exhibit bouts of restlessness and irritability, and can eventually collapse. If an individual is hot but are not sweating, their biological cooling system is no longer working, causing the body to overheat. If someone is in this condition, seek immediate emergency medical attention. Heat stroke is often fatal. "It is extremely important that everyone is familiar with the symptoms, know how to treat them in the short term, and make sure proper medical attention is sought" advises Bach

Heat related illnesses can strike when the weather is as temperate as 80 degrees Fahrenheit. Individuals suited in protective clothing can fall victim in as cool as 70 degree weather. Humidity and direct sunlight can increase the likelihood of these illnesses. Enough shade should be available for workers to rest under and cool off from the sun's direct rays during breaks. Canopies, tents, or even trees can provide enough shade to help miners revive their energy.

According to the American Heart Association, when partaking in physical activity in hot and humid weather, "... the heart is trying to deliver blood and oxygen to your working muscles while your body is trying to cool off by sweating. If you sweat too much, you lose fluid. This decreases your total blood volume. That means your heart has to pump even harder to get the smaller volume of blood to your working muscles, skin and the other body parts. When you lose too much fluid, your body temperature rises and your nervous system doesn't work properly. Extreme fluid loss can lead to brain and heart damage."

"Take breaks, drink water, and stay safe" Bach summarized. This advice is very important to anyone working under such conditions. Next time you feel the heat, arm yourself with a bottle of water and be aware of how your body is reacting to the environment. Only you know your physical limits- listen to what your body tells you- it could save your life.

(Information provided by the March 2007 issue of *Occupational Health & Safety* and the American Heart Association)

Seat Belt Success Story

The other day I had a rather scary experience. I lost control of my haul truck coming down a slippery hill and laid my truck on its side. Everything in my cab went flying, everything except me that is. You see I was wearing my seat belt, so at the end of it all, I was a bit shaken. I have read many stories of people who didn't wear their seatbelts and were injured or killed because of it. The thing is, you never know when an accident will happen, so the best thing you can do is use all available PPE and hope it's never needed.

- Written By: Bill Heitchler

On May 10, 2007 Bill Heitchler was driving his haul truck downhill when road conditions caused Heitchler's truck to loose traction. The massive machine tipped over onto its side, but Heitchler was unharmed thanks to his seat belt. Heitchler put safety first and made sure his personal protective equipment was firmly in place before he drove the truck that morning, saving himself from potential injury or even death. Because of his commitment to safety and health, Bill Heitchler was awarded with the U.S Department of Labor Mine Safety and Health Administration's Risk Slammer Excellence Award.

It is important for all individuals to take safety into their own hands. Wearing PPE and following proper safety protocol can help avoid life threatening injuries. So, next time you are operating equipment with seat

U.S. Department of Labor

Mine Safety and Health Administration

is honored to present this

RISK SLAMMER

Excellence Award

to

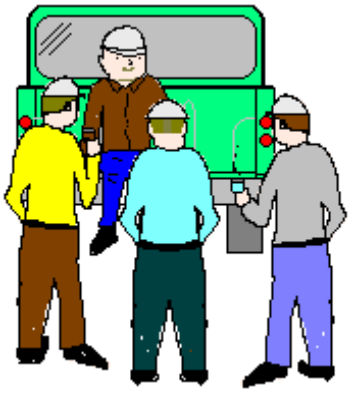
Bill Heitchler

For his commitment to safety and health!

"Seatbelts Save Lives"

May 2007

Art Ellis
Western District Manager
for Mine Safety and Health Administration



SAFETY IS A VALUE!

Stakeholders Best Practices

Tailgate Health Meeting Series

"HEAT STRESS–SUMMER ALERT"

Summer heat is wonderful on the beach or when lying beside a pool, but when you are working in the heat, beware of the effects of heat stress. Heat stress can lead to heat exhaustion, heat stroke, and even death. As the temperatures of summer get hotter, you may want to review your first aid training for recognizing the symptoms and treatment for heat stress.

Symptoms	Treatment
Nausea	Rest
Vomiting	Cool down (shade, air conditioning)
Rapid heart rate	Increase fluids
Headache	
Weakness	
Difficulty breathing	
Dizziness	
Chills	

BEST PRACTICES

- **Communicate to all employees when temperature and humidity approach hazardous levels.**
- **Train employees in recognizing heat stress & dehydration.**
- **Provide and encourage consumption of fluids.**
- **Use the buddy system. Watch co-workers for signs of heat stress.**

Note: If you feel thirsty, you are already dehydrated to some extent. A good rule of thumb is to drink as many ounces of water as you weigh in pounds every day. (A 150 pound person should drink 150 ounces of water per day)

Developed in cooperation with:

Imerys Carbonates, Imerys Sylacauga Operations, Sylacauga, Alabama (Team Leader)

Florida Rock Industries, Fort Myers Quarry, Fort Myers, Florida

E.R Jahna Industries, Cabbage Grove, Perry, Florida

Hatch Enterprises, Inc., Hatch Quarry, Branford, Florida

Warning:
Heart Related Reportables

From January 1, 2007—June 3, 2007, twenty eight heart-related Metal Nonmetal incidents were reported to the MSHA call center. Of those twenty eight, four resulted in death due to heart attack. This series of reported incidents raises concerns for us here at MSHA who consider the health and safety of our miners or top priority. It is important to be healthy not just for ourselves but for our families. A healthy lifestyle involves proper nutrition, physical activity, weight management and refraining from risky activities such as smoking.

The last edition of Metal Nonmetal Quarterly focused attention on heart related disorders. With the surprising number of miners affected by heart related incidents, it is important that we make a conscious decision to dedicate our lives to health and safety. The Western district reported seven heart related incidents while the Southeast district reported six. The Rocky Mountain district reported five, the Northeast and Southcentral both had four heart related incidents reported. The district with the lowest number reported is the North Central district with two related incidents. Most of these heart related incidents can be related to poor diet and stress both physical and emotional. If twenty eight heart-related reported incidences were reported, there may be countless others that have not been reported.

All of us must be conscious of our health just as much as our safety, miners and others alike. It is simple to make small modifications to our diet and our lifestyle in order to improve our heart health and in turn, our overall well being.

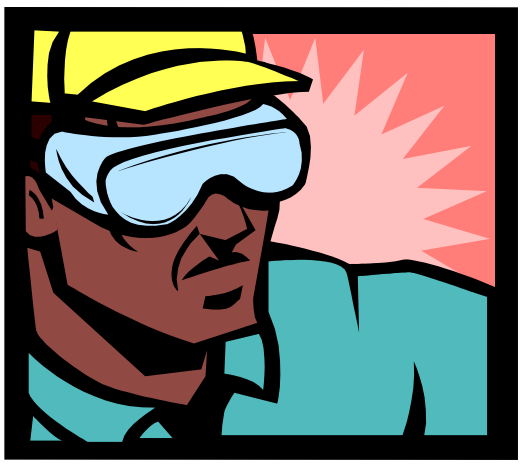
Be Aware
Be Informed
Be Responsible

Safety Leadership and Performance

At MSHA, we understand that Safety is of great importance and should be miners' primary concern; however we do acknowledge that upholding safety procedures for on-the-move workers can be a challenge. In order for supervisors to correctly implement such leadership in safety, a few ideas should be kept in mind.

Focus in on initiatives and concentrate efforts to improve one or two central safety measures in order to ensure follow through. It is better to have a few thorough programs that miners can recognize and fully participate in rather than a group of initiatives which they cannot keep track. As a leader, one can emphasize behavioral change by setting an example for other workers as well as encourage miners to take personal control over their safety. If miners partake in risky behaviors that jeopardize their health and safety and /or the health and safety of others, the miner's actions must be addressed and the behavior must be changed. This will be successful if high expectations of safety are set. If we expect miners to be safety leaders themselves, we must let them know of the high expectations we have for them. By encouraging self assessment, employees can critically examine their work style and make recommendations for their future activity based on their self evaluations. By having individuals evaluate their own safety, it can create self accountability and personal responsibility.

Respect for yourself and others is very important to the mining industry. By creating a means to display our gratitude to miners for upholding these safety standards, a system of validation and accountability should be in place. Those who uphold these high safety standards should receive recognition for all that they do to be a positive role model to other miners in the promotion of safety. A few qualities one must possess to achieve such an honor should include being respectful of one another and all people, they must have strong safety communication and truly be humble. It is important for a miner to grasp all three basic concepts, so honoring those miners that do have these attributes will promote others to take safety seriously and hopefully emulate their behavior in the future.



Efforts must be made from the top-down as well as bottom-up to greatly influence the industry. Oftentimes changes in legislation get lost in the stacks of papers on executive's desks and sometimes new procedures are forgotten because they are not enforced. We need to combine these practices and stress their importance so that safety is addressed from all angles.

Information provided by April 2007 issue of *Occupational Health & Safety*

Summer 2007 Word Find

n	d	r	a	z	a	h	h	k	h	r	p	t
n	o	i	t	s	u	a	h	x	e	x	i	t
y	f	i	r	e	w	o	r	k	s	e	h	h
h	b	p	t	u	s	u	c	t	t	e	s	u
h	r	l	w	a	i	a	r	i	a	r	r	m
e	c	n	a	m	r	o	f	r	e	p	e	i
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h	i	f	a	t	i	g	u	e	e	a	l	y
f	a	t	a	l	i	t	y	t	n	d	h	t
l	e	c	s	s	e	n	i	z	z	i	d	s
t	k	f	a	t	i	g	u	e	a	a	m	d

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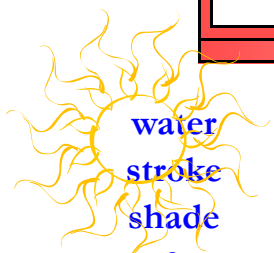


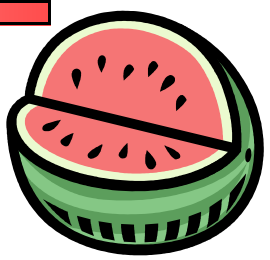
water
stroke
shade
safety

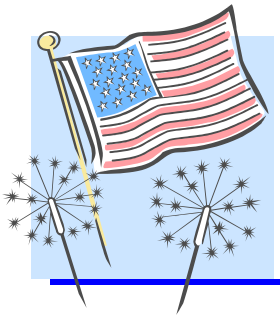
blackout
exhaustion
fatigue
hazard

dehydration
fatality
firecracker
health

dizziness
fatigue
fireworks
heart attack

leadership
humidity
heat
performance





Fireworks Safety

Fireworks are a traditional part of our celebration of Independence Day on July 4th. For many of us, the 4th of July just isn't complete without sparklers and the chorus of *ooh's* and *aah's* when it finally gets dark and the big show begins.

But the celebration is ruined when careless and inappropriate use of fireworks results in injury. According to the US Consumer Products Safety Commission, 8500 people in the US are treated each year for fireworks-related injuries. Seven percent of people injured from fireworks have to be hospitalized. The estimated annual cost of fireworks-related injuries in the US: $100 million.

Those most frequently injured by fireworks are boys aged 10 to 14 years old. Out of the total number of those injured by fireworks, more than 40% are children younger than 14. The most frequently and most seriously injured are active participants in fireworks related activities, not bystanders and audiences. Fireworks-related injuries most frequently involve hands and fingers: 38%, and eyes 19%. The most frequent injuries are burns (approximately 50%), especially to the face, hand, wrist, or arm.

Fireworks can be life-threatening. In 1997, seven people were killed from fireworks-related injuries. They can also cause damage to neighborhoods and homes as they can set buildings ablaze.

Which kinds of fireworks are the most dangerous?

- About two thirds of fireworks injuries are from backyard, (class C) fireworks like firecrackers, bottle rockets, Roman candles, fountains, and sparklers, that are legal in many states.
- Fireworks-related injuries are most commonly associated with firecrackers (51%), bottle rockets (12%), and sparklers (7%).
- The most severe injuries are typically caused by rockets, cherry bombs and M-80s (Class B), which are federally banned from public sale.

Illegal firecrackers cause 29% of all firecracker injuries.

Fireworks Safety Tips

The best way to prevent fireworks-related injuries is to leave fireworks displays to the trained professionals. But for those who participate, the US Consumer Products Safety Commission and the National Council on Fireworks Safety have issued these tips.

- Do not let children under 14 use fireworks. Older children should be supervised.
- Only buy from reliable fireworks sellers; read and follow all the warnings and instructions.
- Use fireworks outdoors only; keep them away from houses and flammable materials.
- Have a bucket of water nearby.
- Do NOT try to re-light or handle malfunctioning fireworks. Soak them in water and throw them away.
- Be sure other people are a safe distance away before lighting fireworks.
- Never ignite fireworks in a container -- especially glass or metal.
- Store fireworks in a cool, dry place according to their specific storage instructions.
- Never experiment or attempt to make your own fireworks.
- Do not wear loose clothing near a fire or while using fireworks.
- *Rockets* should be launched from a rocket launcher not a bottle.
- *Sparklers* need to be handled carefully too: they burn at more than 1000 degrees F. Light them one at a time at arm's length. Always wear gloves while holding a sparkler, and only persons over the age of 12 should handle them.

Information Provided by: US Consumer Products Safety Commission National Center for Injury Prevention and Control