Joseph A. Holmes Safety Association • Mine Safety and Health Administration

JAHSA BULLETIN

May/June/July 2011 Issue

STAY OUT STAY ALIVE

see inside for details...

Contents

The Mine Safety and Health Administration and Joseph A. Holmes Safety Association Bulletin contains safety articles on a variety of subjects: fatal accident abstracts, studies, posters, and other health and safety-related topics. This information is provided free of charge and is designed to assist in presentations to groups of mine and plant workers during on-the-job safety meetings. For more information, visit the MSHA home page at www.msha.gov

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“Stay Out - Stay Alive”

MSHA urges outdoor enthusiasts to steer clear of mines and quarries

ARLINGTON, Va. – The U.S. Department of Labor’s Mine Safety and Health Administration marked the upcoming weekend’s unofficial start of summer with its annual warning to outdoor enthusiasts who may stray – knowingly or otherwise – onto mine property. Each year, numerous children and adults are injured or killed while engaging in recreational pursuits at active and abandoned mine sites around the country.

In 1999, MSHA launched “Stay Out–Stay Alive,” a public safety campaign, to educate people unfamiliar with mining about the hazards that exist at sand and gravel pits, underground mines and water-filled quarries. “As schools begin letting out for the summer, there are more opportunities to explore the great outdoors,” said Joseph A. Main, Assistant Secretary of Labor for Mine Safety and Health. “We want our kids to stay safe and be aware that mines are not playgrounds.”

Thomas Jones, whose parents were coal miners in southwestern Virginia, admits to the lure of mine exploration during his early years. “When you’re a kid, you’re adventurous and want to check out places like old mines and quarries,” said Jones. “We didn’t realize the dangers, and there were some close calls.”

“Thomas Jones is the ideal spokesman for the SOSA campaign,” said Main. “As a professional football player, he is a role model for children and can deliver the kind of message they will listen to.”

Abandoned underground mines may harbor hidden openings that drop hundreds of feet down. Rotting timbers and unstable rock formations make cave-ins a real danger. Lethal concentrations of deadly gases can accumulate in underground passages, and total darkness and debris add to the hazards.

Water-filled quarries, which claim the most lives through drownings, have slippery slopes and unstable rock ledges. The water, which looks inviting, may conceal old machinery and sharp objects left behind after a mining operation closes. Even expert swimmers have encountered trouble in the dangerously cold and deceptively deep waters – and they can’t rely on lifeguards to rescue them.

Old surface mines, such as sand and gravel pits, are popular with ATV enthusiasts. However, they often contain hills of loose materials in stockpiles or refuse heaps that can easily collapse and cause deadly rollovers.

Hi, I’m Thomas Jones, running back for the Kansas City Chiefs. Both of my parents were coal miners. When I was young I was taught that old mines and quarries were DEATH TRAPS.

Dozens of people die in old mines and abandoned quarries every year. Underground mines have shafts as deep as skyscrapers and they can collapse at the slightest disturbance. Water-filled quarries are dangerously deep and cold.
Old surface mines have cliffs and steep ledges that are constantly changing.

Take the advice of this coal miner’s son.
STAY OUT - STAY ALIVE.

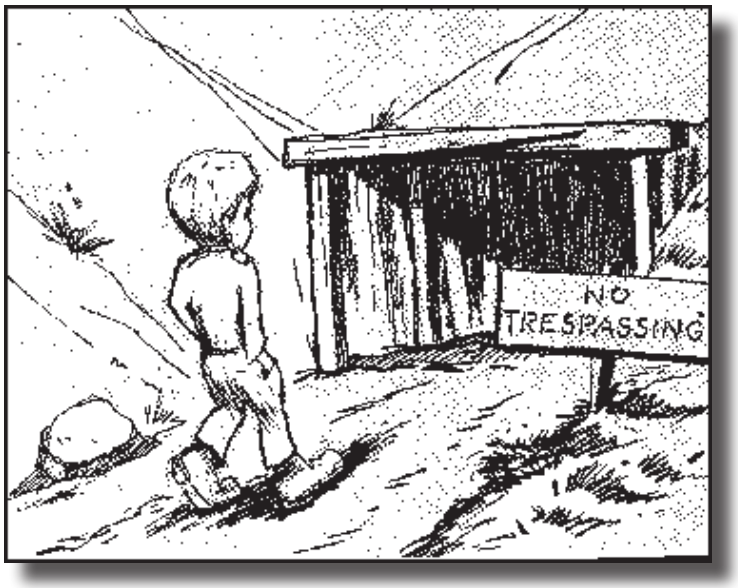
"Stay Out - Stay Alive"

Entering an abandoned mine or swimming in a quarry can be as dangerous as playing in the middle of rush hour traffic. Abandoned mines are not playgrounds. They are very dangerous places and contain many hazards that you may not be aware of.

Here are just a few hazards:

- Mines can have holes as deep as tall buildings.
- They can also be home to poisonous snakes and dangerous animals.
- Many contain deadly gases or spaces with NO AIR!
- Unused or misfired explosives can be set off by the slightest touch.
- Quarries are not swimming pools.
- Even expert swimmers may encounter trouble in a quarry.
  Here's why:
  - Water-filled quarries are dangerously cold and very deep.
  - Steep and slippery slopes can make it difficult to get out of the water.
  - The water can hide rock ledges and old machinery.

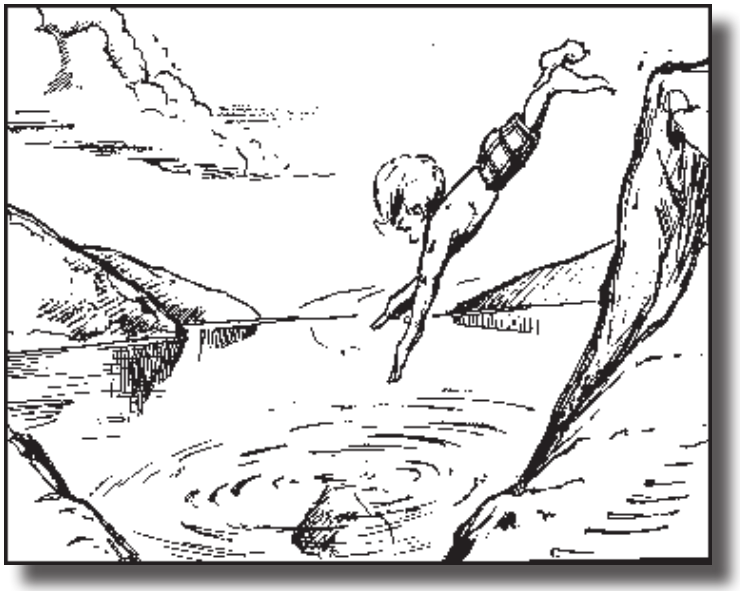
Dangerous places to stay away from...



The general public is often unaware of the dangers of mine openings. Potential dangers are falling rock, loose and shifting dirt, and near-freezing water temperatures. In the spring, unstable ground conditions may be especially prevalent due to thawing of frozen ground.

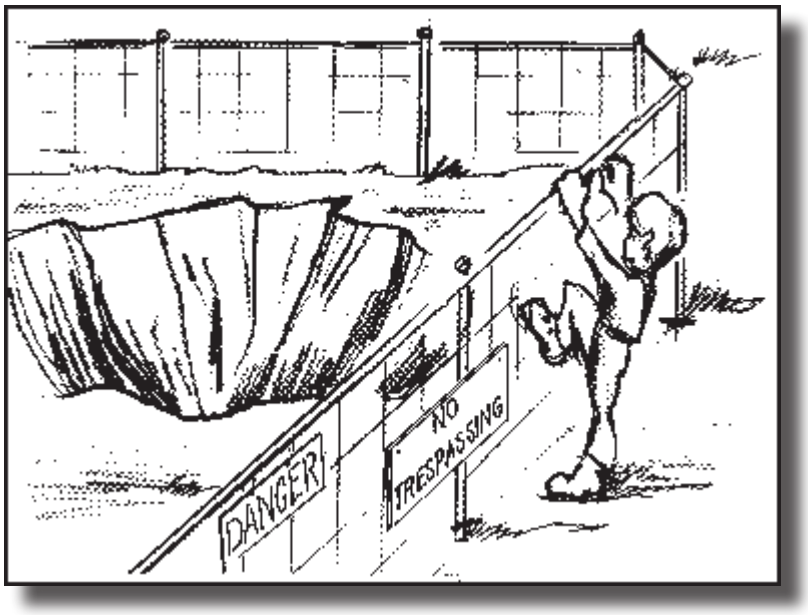
Old quarry and open pit banks or faces are hazardous, especially if they have not been worked for several years and have gone unscaled and uninspected for possible loose material. They become extremely dangerous during periods of alternate freezing and thawing which widen seams and cracks in the rock and weaken the banks to the point of failure.

The surface around abandoned mine openings, caves, and open pits can collapse without warning. Overhanging ledges or rims of pits and caverns may fall with the slightest increase in pressure. The danger is not only to those who walk too close to the edge but also to anyone who happens to be below.



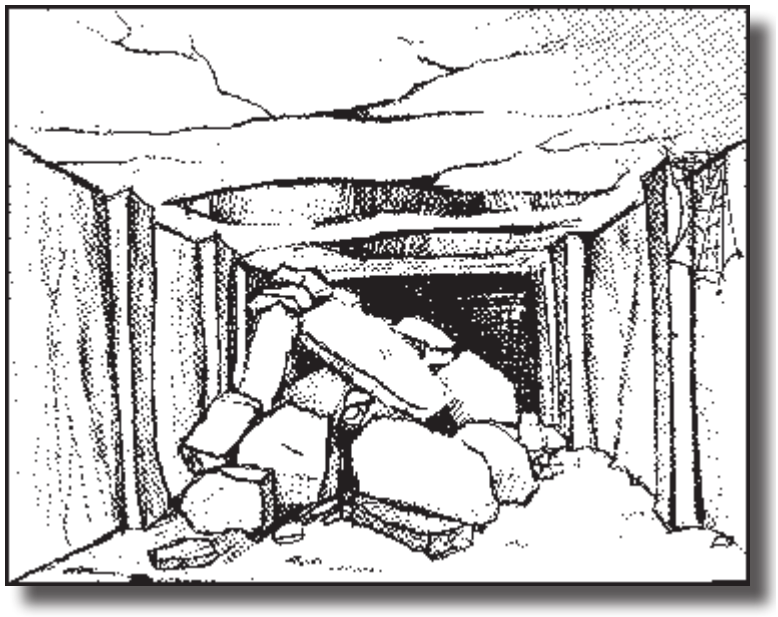
Quarries are often used as “swimming holes.” There is no way of knowing how deep the water is, and swimming at these sites is especially dangerous. Abandoned strip mines pose additional problems such as subsurface terrain, sharp changes in water depth, and extremely cold water temperatures.

The very nature of quarries and quarrying operations rules them out as places to play. Any child or adult can fall or be struck by falling rock. Deep pools may have submerged rocks. On several occasions, people have broken their necks by diving into these pools.



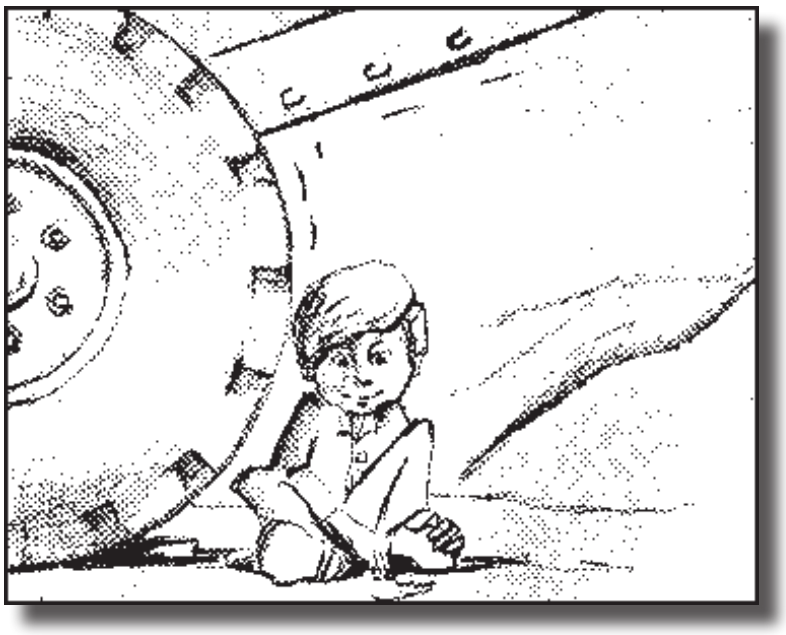
The top of a mine shaft is especially dangerous. The rock at the surface is often decomposed and timbers may be decayed or missing. Do not walk anywhere near a shaft opening. The whole area is often ready and waiting to slide into the shaft which can be hundreds of feet deep.

The ground area around abandoned mine openings and open pits can be weak and cave in without warning. Cave-ins are obviously dangerous. Areas that are likely to cave in are often hard to detect. Minor disturbance, such as vibrations caused by walking or speaking, may cause a cave-in. If a person survives a cave-in, he or she may die from starvation, thirst, or suffocation.



Explosives (dynamite, black powder, blasting caps, etc.) deteriorate with age. They can be detonated by the slightest movement. Never handle explosives or blasting caps.

A shaft sunk from a tunnel is called a winze. In many old mines, winzes were sunk in the floors of tunnels and then boarded over. If water is standing or flowing, then it is usually impossible to see the bottom. There is always a danger of stepping into a winze or other deep holes.



Never play on, under, or around machines.

Near Miss Incidents in 2011

The following list of active and abandoned mine "Near Miss" incidents of non-employees which was compiled from various reports and newspaper articles					
Date	State	Nature of Incident	Sex	Age	Mine Type
1/31/2011	CA	Man Falls to Bottom of 200 ft. Deep Abandoned Mine Shaft	Male	?	Abandoned
3/18/2011	PA	Boy Trapped on Quarry Wall	Male	21	Abandoned
4/25/2011	PA	Two boys use Excavator to Flip Bulldozer	Male Male	9 12	Active
5/02/2011	WY	Two Men Fall Down Mine Shaft	Male Male	? ?	Abandoned
5/30/2011	IL	Teen Survives 100 Foot Fall Into Quarry	Male	Teenager	Abandoned

For further information about "Stay Out-Stay Alive,"
visit http://www.msha.gov/SOSA/SOSAhome.asp

The Dirty Boys

As America's mills and mines expanded in the industrial era, the great need for workers drew even the youngest into labor.

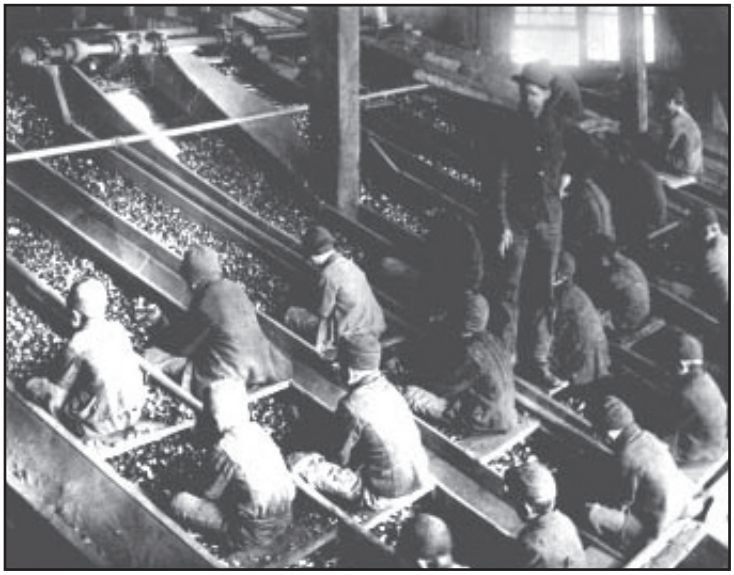
Without safety provisions, just compensation, or even fresh air to breathe, children worked and suffered.

The gaunt, dirty face of the exploited child appeared as the very image- and the eternal condemnation-of the American working system until reform laws were passed in the early 1900s.

One of the most vivid accounts of children at work was written by John Spargo, after a visit to the Appalachian coal mines.

There he found "breaker boys" at their exhausting work. Work in the coal breakers is exceedingly hard and dangerous.

Crouched over the chutes, the boys sit hour after hour picking out the pieces of slate and other refuse from the coal as it rushes past to the washers.



From the cramped position they have to assume, most of them become more or less deformed and bent-backed like old men.

When a boy has been working for some time and begins to get round-shouldered, his fellows say that 'He's got his boy to carry round wherever he goes!'

The coal is hard, and accidents to the hands, such as cut, broken, or crushed fingers, are common among the boys.

Sometimes there is a worse accident: A terrified shriek is heard, and a boy is mangled and torn in the machinery, or disappears in the chute to be picked out later, smothered and dead. ¤

Preventing Heat Stress

Heat is a serious physical hazard that threatens workers from late spring to early fall. The potential for exposure to this workplace hazard is reflected in a 1979 survey of workers' compensation cases. Agriculture led all other industries, including construction and mining, in the incidence of heat-related illnesses. When anyone's ability to respond to heat stress is exceeded, exposure can lead to reduced ability to perform good-quality work, increased accidents on the job, or heat-related illnesses. This fact sheet provides some basic knowledge about heat stress, first-aid treatment, and prevention.

HOW THE BODY RESPONDS TO HEAT

The body temperature for a human must be maintained within a very narrow range (98.6 + 1.8°F), regardless of work load or adverse environmental conditions. An increase in body temperature of 6.5°F above normal can result in death from hyperthermia.

Maintaining an acceptable body temperature is critical to the well-being of anyone working in a hot environment. To achieve this goal, a balance must be struck between heat produced by a body at work and heat lost to or gained from the environment. The body initially responds to heat by sweating and by circulating blood closer to the skin's surface to lower the main body temperature.

When exposure to heat takes place over an extended period, a process of physiological adaptation called acclimatization occurs. Acclimatization may take weeks, although significant adaptation occurs within a few days of the first exposure. Once acclimatization is achieved, working in the heat results in increased production of a more dilute sweat (lower salt content) and less of an increase in heart rate and body temperature.

The body's ability to respond adequately to heat stress decreases with age and obesity. Older workers and obese workers are more vulnerable to heat-related illnesses and less capable of working in the heat. Pregnancy increases a woman's metabolic demands and may make her more sensitive to heat and humidity.

METHODS OF HEAT GAIN OR LOSS

The major physical processes by which the body gains or loses heat in a hot environment are: heat production by normal body functioning (metabolism), heat loss by evaporation, and heat loss or gain by convection and radiation. Metabolic heat gain is a by-product of both resting and physical exertion.

Evaporation is the cooling (heat loss) of the body that takes place when sweat evaporates from the skin's surface. The rate of this evaporative cooling is usually greatly increased by air movement across the skin. During strenuous workouts in very hot environments, sweat production may equal one quart per hour; this is usually sufficient to prevent overheating. Problems arise in warm humid environments because humidity and still air interfere with the body's ability to dissipate heat. Sweat that cannot be evaporated from the body, but drips from the skin, will not result in heat loss.

Convective heat loss or gain is the transfer of heat between the skin and surrounding air. When air temperature is higher than skin temperature, the body gains heat through convection. If air temperature is lower than skin temperature, the body loses heat. The rate of heat gain or loss depends upon the difference between air and skin temperatures and the presence of air movement (wind velocity). The use of fans to continually move cool air next to the skin and move away the air already warmed by the skin is a common method of cooling the body.

Radiation is the direct transfer of heat from a hot object (the sun, hot equipment, a furnace, or a warm wall) to another cooler object, such as a human body, without heating the air in between. The greater the temperature of an object the more radiation it emits and the warmer the person will feel.

HEAT STRESS

Heat stress occurs when the body builds up more heat than it can handle. High temperatures, high humidity, sunlight, and heavy workloads increase the likelihood of heat stress. Too much heat can also make workers lose their concentration or become fatigued or irritable and thus increases the chance of accidents and injuries. Understanding how to deal with heat stress can help to prevent or reduce accidents and is important to workers' health and well-being.

Heat Rash

Heat rash is an early signal of potential heat stress. It is commonly associated with hot, humid conditions in which skin and clothing remain damp due to unevaporated sweat. Heat rash may involve small areas of the skin or the entire torso. If large areas of skin are involved, sweat production is compromised, resulting in a decreased capacity to do work in the heat. Even after the affected area of skin is healed, sweat production will not return to normal for another 4 to 6 weeks.

Preventive measures are aimed at reducing exposure to hot and humid conditions each day. If heat rash does occur, precautions must be taken to avoid skin infections. Treatments include cleaning the affected area and applying mild lotions to it. Keeping the skin clean and dry for at least 12 hours each day will prevent severe heat rash.

Heat Syncope

Heat syncope is characterized by dizziness or fainting while standing still in the heat for an extended period. The condition results from blood pooling in the skin and lower part of the body and the consequent decrease in blood flow to the brain. Heat syncope is the least serious of heat-induced disorders. Its most serious aspect is that it may cause people to fall or injure themselves while operating machinery. Treatment consists of resting in a cooler environment. Prevention is based on acclimatization and avoiding long periods of immobility while at wait.

(see next page)

Heat Cramps

Symptoms include painful cramps or spasms in the legs, arms, or abdomen. The victim will probably sweat heavily. Spasms may occur during work or in the evening after work. Heat cramps are often caused by a temporary fluid and salt imbalance during hard physical work in hot environments. First-aid treatments for heat cramps include: applying firm pressure or gently massaging the affected muscle, resting in the shade or a cool place, and taking small sips of salt water (one teaspoon of salt per quart of cool water; plain water should be used for those with heart or blood pressure problems).

Heat Exhaustion

Heat exhaustion results from the reduction of body water content or blood volume. The conditions occur when the amount of water lost as sweat exceeds the volume of water drunk during the heat exposure. Heat exhaustion usually develops after several days of exposure to high temperatures. The victim of heat exhaustion may have some or all of these signs or symptoms: heavy sweating; clammy, flushed, or pale skin; weakness; dizziness; nausea; rapid and shallow breathing; headache; vomiting; or fainting.

First-aid treatments for heat exhaustion consists of the following: Move the victims to a cool area. Place them on their backs with their feet raised. Loosen clothing and apply cool, moist cloths to the body, or fan the victim. Slowly administer sips of salt water (plain water for those with heart or blood pressure problems). Call a doctor, especially if victims faint or vomit.

Heat Stroke

Heat stroke is a life-threatening, heat related disorder associated with working under very hot and humid conditions. The body may either lose its ability to regulate temperature, due to a failure of the central nervous system to regulate sweat control, or its normal heat-regulating mechanism may simply be overwhelmed. Heat stroke can result in coma or death. The early signs and symptoms of heat stroke include: a high body temperature (104 degrees F or over) hot, dry skin that appears bluish or red; absence of sweat in 50 to 75 percent of victims; rapid heart rate; dizziness, shivering, nausea, irritability, and severe headache progressing to mental confusion, convulsions, and unconsciousness.

A worker who becomes irrational or confused or collapses on the job should be considered a heat stroke victim, and medical help should be called immediately. Early recognition of symptoms and prompt emergency treatment is the key to aiding someone with heat stroke. While awaiting the ambulance, begin efforts to cool the victim down by performing the following: Move the victim to a cooler environment and remove outer clothing. Wet the skin with water and fan vigorously or repeatedly apply cold packs, or immerse the victim in a tub of cool (not ice) water. If no water is available, fanning will help promote cooling.

Factors that may increase the risk of heat stroke include sleep distress, obesity, poor physical condition, lack of acclimatization, dehydration, and alcohol use. Many commonly used drugs may also interfere with the body's response to heat stress. Preexisting medical conditions, such as cardiovascular disease, diabetes, certain skin disorders, and some diseases of the central and peripheral nervous systems, can impair people's normal physiological response to heat stress. Consult your physician for more information concerning the above conditions.

Enhancing Heat Tolerance

Acclimatization (to heat) is a process of adaptation that involves a stepwise adjustment to heat over a week or sometimes longer. An acceptable schedule for achieving acclimatization is to limit occupational heat exposure to one-third of the workday during the first and second days, one-half of the workday during the third and fourth days, and two-thirds of the workday during the fifth and sixth days. The acclimatization procedure must be repeated after days off due to illness or a vacation of one week or more. To achieve acclimation, a person must work in the heat at the activity level required by the job. If the risk of heat stress is increased, additional acclimatization will be required.

Fluid replacement: Always drink plenty of water when in the heat. Simply relying on feeling thirsty will not ensure adequate hydration. To replace the four to eight quarts of sweat that may be produced in hot environments, people require one-half to one cup of water every 20 minutes of the workday. Water at 55^0F is preferable to ice water or warm water.

Physical fitness is extremely important. The rate of acclimatization is a function of how physically fit the individual is. The unfit worker takes 50 percent longer to acclimate than one who is fit.

Increasing Safe Work Practices

Limit exposure time. Schedule as many hot activities as practical for the coolest part of the day (early morning or late afternoon). Employ additional help or increase mechanical assistance if possible.

Minimize heat exposure by taking advantage of natural or mechanical ventilation (increased air velocities up to 5 mph increase the rate of evaporation and thus the rate of heat loss from the body) and heat shields when applicable. Take rest breaks at frequent, regular intervals, preferably in a cool environment sheltered from direct sunlight. Anyone experiencing extreme heat discomfort should rest immediately.

Wear clothing that is permeable to air and loose fitting. Generally less clothing is desirable in hot environments, except when the air temperature is greater than 95^0F or a person is standing next to a radiant heat source. Then covering exposed skin is beneficial to reducing heat stress.

A buddy system may also be helpful. It depends on a fellow worker's ability to spot the early signs of heat stress, such as irritability, confusion, or clumsiness. A ready means of cooling should be available at work areas where heat illness might occur.

Worker Health and Education

Periodic medical examinations may help identify workers who are at greater risk for heat-related illnesses. This is particularly important for those with preexisting health problems or older workers.

Drugs may alter the body's ability to deal with heat stress effectively. Health-care providers can provide important information about possible problems and make recommendations about safe work practices. Alcohol use should be avoided when working in a hot environment.

All workers who are exposed to hot environments should receive basic instruction on the causes, recognition, and prevention of the various heat illnesses.

This article is adapted from one written by Wei Zhao and Ann L. Kersting, and published as Fact Sheet FS747 by Rutgers Cooperative Extension, The State University of New Jersey. ¤

2011 JAHSA National Meeting
"Miners' Rights Key Attraction"

District Manager Eddie Lopez gives welcoming address to the Joseph A. Holmes membership.

The National Holmes Meeting Merit award was given to Paul Shelby, EFS Little Rock, Arkansas.

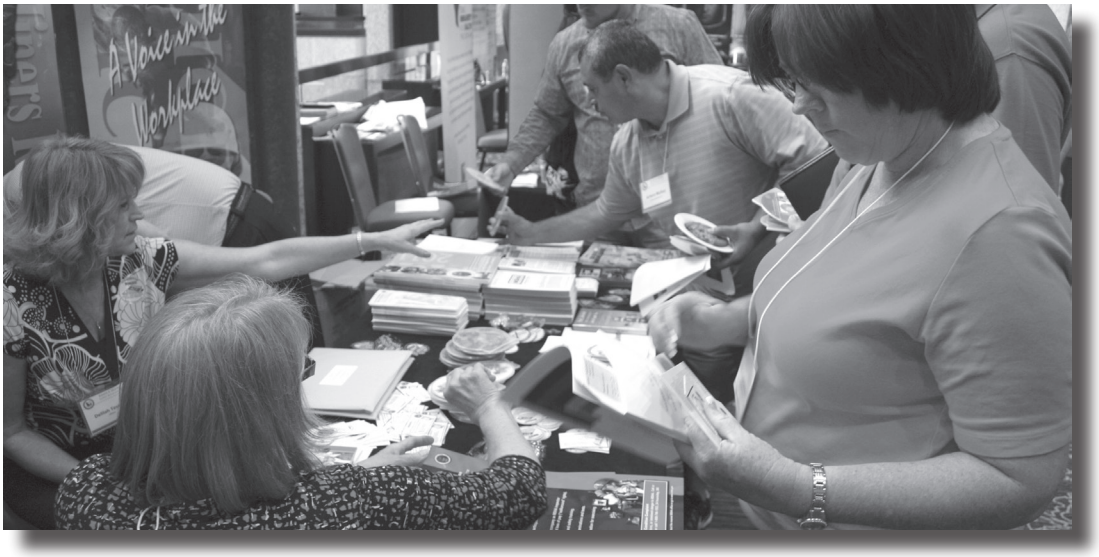
Numerous Workshops

and Presentations...

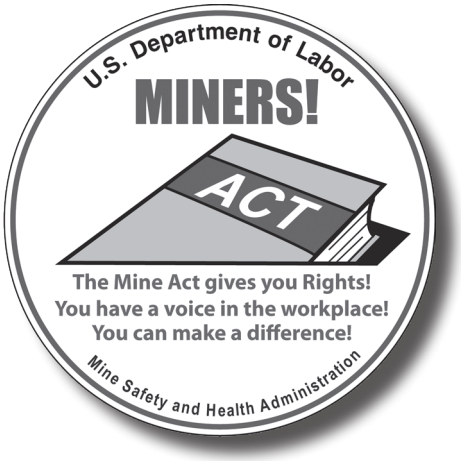
Center of Attention at the National Meeting...

Jeff Duncan talks about Miners' Rights.

Ted Farrish talks about Miners' Rights.



Attendees look over "Miners' Rights'" material at the MSHA display booth.



Judy Tate presents Miners' Rights to State Grant attendees.

NEW EXECUTIVE OFFICERS 2011-2012

President:
Mark Zinser, Labor, MI

First Vice President:
Cotton Jarrell, Mgt, NM

2nd Vice President:
Ron Bucci, State, IN

3rd Vice President:
Sam Scribe, Vendor, PA

4th Vice President
Jeffery Kravitz, Federal, PA

Secretary:
Robert Glatter, Federal, VA

Treasurer:
Al Simonson, Emeritus, MN

Thank you for your service....

JAHSA Presents

Leland Payne announces the award recipients.

Sandi Grant was selected as Woman of the Year.

Alan Vozel was selected as Man of the Year.

Sylvia Ortiz was selected as the Ival VanHorn winner.

Patrick Hurley was selected as the William "Bill" Hoover Lifetime Achievement Award winner.

Honor Awards...

JAHSA President Mark Zinser gives out awards to council competition winners.

New Jersey Council

The Stay Out – Stay Alive campaign program was presented at four grade schools in southern New Jersey on June 6,7, and 8, 2011. The schools were Port Elizabeth, Port Norris, Haleyville, and Downe Township.

Mr. Jim D'Ambroso (Environmental Health and Safety) U.S. SILICA, spoke on the dangers of the local mining industry, the large equipment used on mining sites, and the future of mining in the area.

Mr. Ken Heintz (Mine Safety Education) LWD (NJDOL), spoke on the dangers of mine sites and the number of non-mining people who have died by going onto the mine sites.

Mr. Reecle Horn, a Federal mine inspector, DOL-MSHA, spoke on the dangers of mine sites and the training given to miners. He also demonstrated some of the equipment used.

Trooper David Peterson, NJ State Police, explained the legal aspects of trespassing on mine property. If caught on site, the penalties are: loss of your motorcycle, cost of trespassing, and not being able to get a driver's license until age 21.

STAY OUT STAY ALIVE

5th Annual Summer Sizzler

The Summer Sizzler Picnic held Saturday, July 9th, at Mike Miller Park in Draffenville, Kentucky, lived up to the name in more ways than one. First, it was hot. It was so hot that I was informed that the lake water, at that temperature, made an interesting soup from the ducks that were on it. Second, and more important, if you were a kid, this was the happening place to be. By our count, 107 adults and children came out for the catered grilled burgers and dogs, chips, cold drinks, and ice cream. The kids enjoyed the “Bounce Castle”, and every child received a “water weapon” and an adequate supply of water. From the din of conversation under the shade of the shelter, the adults got a lot of visiting accomplished.

Door prizes ranged from a super nice gas grill to caps and tee shirts and included six bicycles, fishing rods and reels, scooters, tool sets, water cannons, a Nook Notebook, gift cards, and many other items. Each child received a complimentary sand pail filled with goodies and each adult received an insulated tote-bag with complimentary gifts stashed inside. No one went away without a prize!

Sponsors of the event were Occunet, Martin-Marietta Aggregates, Pine Bluff Sand and Gravel, and Vulcan Materials. We sincerely thank each of these fine companies for their involvement and also thank the numerous other companies and individuals who contributed prizes. I purport that all involved can take great pride and satisfaction in their role of making the terrific memories for the children who have attended these events. These are very special young people. They are the children and grandchildren of employees in the mining industry, and these most pleasant experiences last a lifetime.

Planning Team Members

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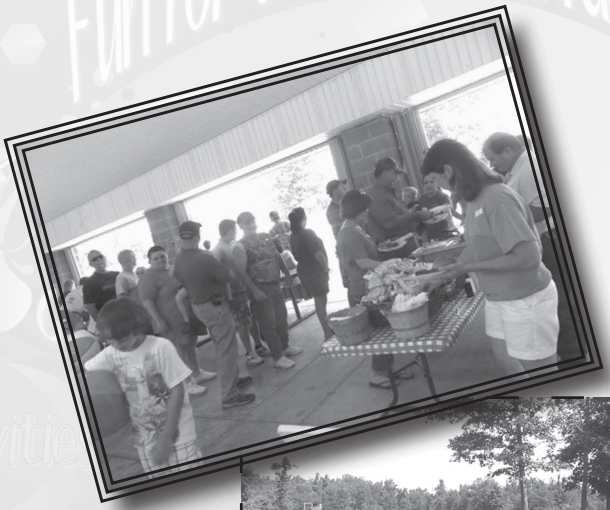

If you see someone from our sponsor companies, say thanks!
Our next scheduled meeting is in September. See you there!

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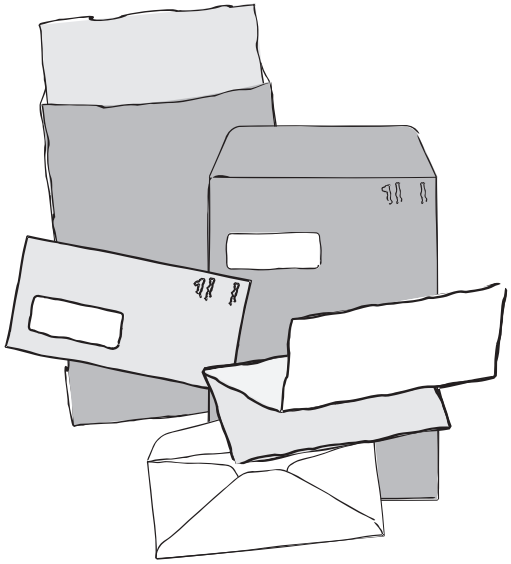

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