The 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 of groups of mine and plant workers during on-the-job safety meetings. For more information visit the MSHA Home Page at www.msha.gov.

Please Note: The views and conclusions expressed in Bulletin articles are those of the authors and should not be interpreted as representing official policy or, in the case of a product, represent endorsement by the Mine Safety and Health Administration.

Cover: Cover created by AVMDB Graphics. Photos provided by Ted Farrish, AV Specialist with the AVMDB, National Mine Health and Safety Academy, on location at North Carolina Granite, North Carolina. If you have a potential cover photo, please send an 8”x10” print or digital image on disk at 300 dpi resolution to Donald Starr, Joseph A. Holmes Safety Association Bulletin, National Mine Health and Safety Academy, 1301 Airport Road, Beaver, WV 25813-9426.
A Letter to Joseph A. Holmes Safety Association

The following is a letter of appreciation to the Joseph A. Holmes Association from a relative of a former Joseph A. Holmes Medal of Honor recipient. The letter symbolizes the Association’s long history of integrity to safety. The letter reads as follows:

My brother, David Jackson, was awarded the Joseph A. Holmes medal of honor on May 11th, 1977.
Both of his arms were severed while saving the life of a co-worker. Even with David’s disability, he lived a good life with his wife and daughter.
I just wanted to let you know that David was diagnosed with non-Hodgkins lymphoma cancer last October and died on June 5th, 2001. We all miss him very much. He was a great man before and after his accident.
I want to thank the Joseph A. Holmes society for recognizing him for his unselfish and heroic act that happened so many years ago.

David’s Loving Sister,
Donna Vickers
Three in the Right Place at the Right Time

"The whole front end was burning. I wanted to put the dirt on the fire without hurting him."

-Arnold Shade, crane operator

The following article is an account of the actions taken by recent Association Hero Award recipients. Submitted by James Young, EFS East, for the Joseph A. Holmes Association Bulletin and written by staff writer Nathan Dickinson for the Annapolis, Maryland Capital newspaper.

Each time Arthur Reedy began to drift off to sleep Monday night, he’d hear the plea echo in his head and jolt awake: “Don’t let me burn.” John M. Johnson, a Crowsville 17-year-old, etched those words into the Laurel man’s mind several hours earlier as he lay trapped in the twisted wreckage of his burning car.

Mr. Reedy and a co-worker, Arnold Shade, rescued Mr. Johnson after the teenager’s car collided with a truck on Patuxent River Road in Davidsonville—right in front of Brandywine Sand and Gravel.

Mr. Shade, a crane operator from King George, Virginia, extinguished the flames with a carefully placed load of dirt on the burning auto while Mr. Reedy, a supervisor at the site, tended to Mr. Johnson until county Fire Department paramedics arrived.

“He said, ‘Don’t let me burn,’ and I told him, ‘You won’t burn on this shift,’” Mr. Reedy said. Authorities said Mr. Shade’s quick thinking certainly saved Mr. Johnson’s life. The teenager was listed in critical but stable condition at the Shock-Trauma Center at University Hospital in Baltimore.

The 8:53 a.m. crash shook up the three employees at the gravel pit Monday.

“We heard the explosion and saw the fire,” said Ed White of Edgewater, a dispatcher at the site who made the initial 911 call.

After seeing the fire, Mr. Shade carefully drove the 70-ton front-end loader he was operating up to the 1969 Chevrolet Nova and dumped a load of dirt on
the fast-burning engine. “The whole front end was burning,” he said.

“I wanted to put the dirt on the fire without hurting him.”

The flames were quickly spreading and were beginning to lick at Mr. Johnson’s body. “He said at one point, ‘My feet are hot,’” Mr. Reedy said.

Seconds later, another load of dirt extinguished the last flames.

Mr. Shade also put a load of dirt on the nearby truck, which was also engulfed. Driver, Michael G. Oktavec, 40, of Annapolis, had escaped unhurt.

Before paramedics arrived Mr. Reedy tried to reassure Mr. Johnson that he wasn’t hurt badly, even though he had gashes on his head and blood on his face. “I put my Redskins shirt over his cuts,” said Mr. Reedy.

Mr. Shade said that, at first, fire extinguishers at the gravel pit could not douse the flames. In addition to their frantic efforts to knock out the source of the heat, they had to ward off a crowd of frightened bystanders. They were waving off Mr. Reedy and Mr. Shade, yelling that the vehicles could explode.

Paramedics arrived within a few minutes. It took about half an hour to extricate Mr. Johnson, who was then flown by state police helicopter to Baltimore.

Though the men say they’ve been haunted by the sight of the trapped 17-year-old, they felt fortunate to be able to help him.

“It was fate that it happened here,” Mr. White said. “We were here and able to do something.”

In June, the three Maryland based miners were presented with Hero Safety Awards from the Joseph A. Holmes Safety Association for their acts of heroism in saving the life of John M. Johnson of Crownsville, Maryland. The award was presented by James Young, EFS-East, and Dale St. Laurent, supervisor of the Metal/Nonmetal Field Office, Charlottesville, Virginia.
Stop Welding Electrocutions NOW!

The death of a boilermaker at a WA ship building company on 3 March 2001 prompts MINESAFE to again remind all persons involved in electric arc welding practices, that an electric shock arising from contact with the output welding circuit can prove fatal.

Accident details

The victim had been using a standard manual metal arc welding machine to make repairs in the lower internal parts of a ship. It was found that he had been working in the confined space for almost 3 hours. The outside ambient temperature was 37°C and the workplace temperature may have been as high as 60°C.

When found, the victim’s clothing and gloves were wet with perspiration. His welding helmet was in the raised position and a new electrode rod had been fitted in the electrode holder.

A pathologist’s report gave the cause of death as being ‘consistent with electrocution’.

Comments and recommendations

Welding electrocutions keep happening even though they can easily be prevented by using a commercially available safeguard called a welding ‘Voltage Reducing Device’.

Following an accident underground in a Queensland mine, the Coroner handed down the following rider:

“The installation of Voltage Reducing Devices (VRDs) be compulsory on all alternating current welding equipment used for commercial or industrial purposes”.

A welding VRD is a safety device that monitors the electrical resistance of the output welding circuit and only allows full welding voltage to be applied when resistance becomes low as an attempt is made to ‘strike an arc’. Similarly, a VRD reduces the open-circuit electrode voltage to a safe level within seconds of welding ceasing.

In this way, harmful welding voltage is only present during the actual welding process, and not when the equipment is either left on and unused, or when a replacement electrode is being fitted.

The sensitivity of a VRD is set such that the worst case electrical resistance presented by a current path through the human body will always exceed the level required to activate the device.
Workshop Vehicle Hoist Collapses

A recent incident in a mine workshop reminds us that the dependable vehicle hoist, a faithful servant to the mechanic, can be a dangerous implement if not handled with care. In the relevant incident, a mine employee had raised a 4WD to the desired position and lowered the main hoisting platform to allow him to work in ‘wheels-free’ mode. A short time later one of the locking pawls slipped, tilting the vehicle and destabilizing the hoist. The support frame bounced down the ratcheted posts, and the vehicle slid off the hoist and rolled out the workshop door. The hoist was significantly damaged. The worker took quick evasive action to avoid injury.

The cause of the problem was that one of the safety support locking pawls had not engaged properly. ‘Dirt’ had accumulated in the support channel (see photo), altering the vertical position of that pawl, and preventing it from locking correctly in place.

The lesson learned from this is that operators must always ensure that each locking pawl is 100% engaged before releasing the hoisting platform and working underneath the hoist.

Any defect that prevents any safety lock from working correctly must be repaired before the hoist is put in full use.
Working underground is one of the most hazardous occupations in the United States. Underground mines have a fatality rate of at least 15 times the overall manufacturing rate for the United States (Figure 1-based on MSHA data, 5-year intervals, 1985-1999). Underground stone mines have a fatality rate that is nearly 20 times the manufacturing national average. Three-quarters of these underground stone fatalities result from falls of ground from the mine roof or rib (Figure 2). Examining only groundfall fatalities in underground stone mines, produces a rate that is 13 times that of the overall manufacturing fatality rate for the United States. These high fatality rates in underground stone mines due to groundfalls are a critical concern.

Production from 108 underground stone mines is estimated to range from 70 to 100 million tons per year accounting for 5% to 10% of the nation’s output. Economic growth and highway building in particular have resulted in record demand for stone in recent years. This high demand, coupled with increasing constraints on surface mining in some areas, has resulted in operators giving greater consideration to developing stone mines underground (Figures 1, 2). An informal NIOSH survey in 1998 identified approximately 17 new underground limestone operations in various stages of planning. Other sources estimate that as many as 35 new underground mines may be in operation by 2005 (Figure 3). Figure 3 indicates the potential growth expected in underground stone mines. In many instances these new mines will employ new or inexperienced workers with minimal knowledge of the potentially hazardous
underground conditions that exist. With the potential for developing so many new underground stone mines and the already high groundfall fatality rate, NIOSH examined the worker activity at the time of injury to provide information or insight on possible prevention methods.

**Methods**

Data for this study were obtained from the MSHA accident and employment databases. The study examined the closeout data for the period 1983-1999 for underground stone mines, excluding contractors. Ground control incidents included all roof and rib falls listed in the database, as well as incidents classified as “machinery” where the source of injury was caving rock. The groundfall lost-time injuries were confined to those that resulted in a permanent disability or in actual days away from work (degree of injury 2–4).

The severity of injury was determined by summing the days lost due to nonfatal lost-time groundfalls. Because a single extremely severe injury can dramatically increase the mean number of days lost, the median number of days lost was used for comparing the severity of injuries associated with different worker activities at the time of the groundfall.

**Results**

Between 1983 and 1999 there were 16 groundfall fatalities representing 76% of all fatalities occurring at underground stone mines (Figure 4). A more even distribution was found with the nonfatal injuries based on injury classification (Figure 5). The highest number of nonfatal injuries was attributed to handling of materials and slips/falls/bumps, both at 22%.

Figures 5 and 6 show that groundfalls resulted in 15% of all underground lost-time stone injuries but accounted for 34% of the total days lost which is by far the most of any type of accident. Roof and rib falls cause more than one-third of all days lost and result in more debilitating injuries than any other type of injury classification.
Table 1 - Number and percent of groundfall injuries, days lost from work days, and median days lost per injury by worker activity, underground limestone mines (MSHA, 1983-1999).

<table>
<thead>
<tr>
<th>Worker Activity</th>
<th>Fatal Injuries</th>
<th>Lost-time Injuries¹</th>
<th>Total days lost</th>
<th>Median number of days lost per incident²</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No.</td>
<td>Pct</td>
<td>No.</td>
<td>Pct</td>
</tr>
<tr>
<td>Scaling</td>
<td>3</td>
<td>19</td>
<td>47</td>
<td>53</td>
</tr>
<tr>
<td>Handling explosives</td>
<td>3</td>
<td>19</td>
<td>24</td>
<td>12</td>
</tr>
<tr>
<td>Roof bolting</td>
<td>0</td>
<td>0</td>
<td>8</td>
<td>6</td>
</tr>
<tr>
<td>Drilling Face</td>
<td>3</td>
<td>19</td>
<td>6</td>
<td>29</td>
</tr>
<tr>
<td>Handling supplies</td>
<td>0</td>
<td>0</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>Other</td>
<td>7</td>
<td>43</td>
<td>14</td>
<td>10</td>
</tr>
<tr>
<td>Total</td>
<td>16</td>
<td>100</td>
<td>140</td>
<td>100</td>
</tr>
</tbody>
</table>

¹Groundfall injuries resulting in lost work days (degree of injury ≥ 4).
²The median days lost for all underground stone mine lost-time accidents is 12.

Figure 6 - Proportion of days lost due to lost-time injuries in underground stone mines based on injury classification (MSHA, 1983-1999)

The MSHA accident injury database shows that 156 groundfall related injuries (fatal and lost-time) occurred between 1983-1999. Worker activity at the time of the groundfall accident was reviewed based on the mine worker activity code and accident narrative (Table 1 and Figure 7).

Groundfall injury frequency is associated with these worker activities: 47% during scaling; 24% while handling explosives; 8% during roof bolting, and less than 6% during drilling or handling supplies; and 10% during other activities. There is a slightly different scenario when examining the severity of injury based on the percentage of days lost due to the injury shown in Figure 8. These results show that 53% of the groundfall days lost occur during scaling, 24% during drilling, 12% while handling explosives, 6% during roof bolting, and less than 6% during handling supplies and other activities. A comparison of lost-time ground fall frequency and total days lost (severity) percentages (Table 1 and Figures 7 and 8) show that drilling the face and scaling have a higher severity percentage than the other activities. The significantly higher proportion of days lost for
drilling the face and scaling are partly due to two permanent disabilities. These incidents resulted in an extremely high number of statutory days lost being charged to each incident to account for the incapacitating injury and the loss of gainful employment. The effects of these extreme cases on the mean are avoided by using the median to determine the maximum number of days lost per incident for at least 50% of all of the incidents.

To identify practices that may improve safety or protection of miners, the MSHA injury narratives and fatal accident reports were examined in detail for each lost-time and fatal groundfall injury. The results are summarized in the following sections by the type of work the miner was performing at the time of the groundfall injury.

**Scaling**

Nearly 50% of all groundfall occurrences are related to scaling. The median number of days lost due to scaling accident is 16 days lost per accident which exceeds the overall median of 12 days lost per incident for all underground stone lost-time accidents (Table 1 and Figure 9). Nearly one-third of the 69 scaling accidents are associated with roof or rib rock falling onto the basket, scaling machine, or outrigger equipment. This jarring action to the basket or scaling machine often causes the workers to fall from the basket or against the basket rail. According to one accident narrative, two miners were hand scaling the roof from a bucket when a large rock dislodged and struck the corner of the bucket. The weight of the rock on the bucket caused the boom of the scaling rig to bend towards the mine floor until the rock fell to the floor. The boom then catapulted upward, throwing the two scalers from the bucket. In many of these accidents, the failure to use body harnesses resulted in severe injuries. In another narrative an employee was hand scaling while leaning out of a basket when a rock (10 by 7 by 24 ft) fell and struck the outrigger of the scaling machine, causing the machine to fall on its side. The employee was thrown from the basket but a harness, most likely, prevented the worker from being either thrown to the floor or possibly being crushed by the machine. Although his skull was fractured, this incident could have resulted in a fatality if the employee had not been wearing a personal protection harness.
August

In some cases, scaling machines and outriggers may need to be better equipped to absorb and deflect these groundfalls. Perhaps the bucket needs to have a canopy or a partial cage and padded to alleviate these types of injuries. It may benefit the workers in the bucket if they wear a hard hat with a chin strap or other type of head protection that could not be easily thrown off during a fall. A previous report suggests the development of personal protection equipment for the scaler to cushion the shock from falling rock which may lessen the severity of scaling injuries.

Another factor examined was the proportion of these accidents associated with hand scaling. Although the narratives are not always specific, it appears that at least 60% of scaling accidents involved hand scaling. Utilizing a machine scaler, where the mine worker is protected by an enclosed cab, would significantly reduce injuries from groundfalls during scaling operations.

Handling explosives

The worker activity of handling explosives is associated with the second highest percentage (24%) of lost-time injuries from groundfalls (Table 1). Based on MSHA reports, 19 of the 34 injuries that occurred while handling explosives were related to the task of loading explosives into the holes. The typical loading injuries result in a median of 16 days lost per incident in comparison to all underground stone mines with a median of 12 days lost per incident. The majority of these incidents result in injury to the victim’s back and shoulder.

It appears most of these groundfalls are small-sized rock pieces that fall from the face and roof. Perhaps these incidents could be prevented by wearing some type of protective clothing or gear that would lessen the impact or deflect these small rocks.

Another grouping of handling explosives accidents is associated with groundfalls occurring while the miner is cleaning out bottom holes. Two of these incidents resulted in a fatality, and according to the MSHA fatality report, “the employees routinely cleaned the bottom holes before entering the basket and going up to check the roof. They relied entirely on visual inspection of the roof for ground conditions”. The proper procedure is to check and sound the roof and rib before cleaning the bottom holes.

Roof bolting

Roof bolting activities associated with only 8% of the lost-time groundfall injuries and 6% of days lost but produced a very high injury severity—a median of 27 days lost per bolting incident (Table 1 and Figure 9) which is more than double the median rate for all underground stone mine accidents. Miners working from a basket to install the bolts have more injuries than miners using an automated bolter. The bolt operator protected in a cab has less exposure to roof fall hazards than those bolters using a basket to install the roof bolt. Adding a partial cage or canopy to the basket may reduce these types of injuries which are typically severe.

Drilling

Although the activity of drilling the face was associated with only 6% of the lost-time groundfall accidents, these incidents accounted for 24% of the days lost and 19% of the fatal accidents (Table 1). The median days lost per drilling accident is 29 days lost per incident, which equates to nearly a month and a half of recuperation. This is the highest severity of all worker activities and more than double the rate for all underground stone
mine accidents (Figure 9). These severe and fatal groundfall injuries that occur during face drilling activities need to be investigated further.

The MSHA fatality investigation reports for all three face drilling fatalities indicate that inadequate examination and testing of the ground conditions prior to work performed in the area were major factors in these incidents (Figures 6, 7).

The report on one accident, which resulted in multiple fatalities, further recommended using a mechanical scaler, reducing mining height, spot bolting, limiting taking floor lifts, and ground control hazard training for all miners (Figure 6).

Although the detail provided in the MSHA nonfatal narratives is limited, the face drilling operation narratives indicate that in at least 75% of these incidents the victim was located outside of the cab. In most instances, the victims were changing drill steel or checking the drill alignment. Perhaps, moving the location of where the drill steel is being changed, away from the drilled face to an area where the rib and roofs are more stable, could alleviate these types of lost-time injuries.

**Other**

With over 40% of fatal groundfall injuries (Table 1) attributed to other types of miscellaneous worker activities, the MSHA fatality reports were reviewed to find any other associated accident cause.

Although the other worker activities are all different or unrelated to the accident, 4 out of the 7 fatalities occurred while the victims were entering a recently blasted face area. These fatalities resulted from the fall of roof or face due to rock loosened by the recent blast. In two of these cases, MSHA was unable to determine why these victims were in the blast area. Even though these groundfall accidents are attributed to not properly inspecting and scaling the loose rock prior to entering the area, the puzzling question remains: Why did the workers proceed into these very hazardous areas, especially if there was no cause to be there? Possibly, hazard training would be a useful tool to emphasize severe groundfall risk associated with a freshly blasted mine face and the proper procedures for entering the area.

**Summary**

Groundfall incidents that result in fatalities and lost-time injuries to underground stone mine workers are tragic events. Any action that can prevent or reduce the potential for these devastating occurrences is a positive step towards increased worker safety. This study identified these specific groundfall accident injury trends and some recommended preventive measures:

- Scaling injuries result in highest frequency and number of days lost due to roof falls.
- Scaling injuries often occur from the impact of falling rock onto the basket. It is critical that safety harnesses and other personal protection equipment be correctly utilized during scaling operations.
- Scaling injuries are frequently associated with hand-scaling operations. The use of mechanical scalers with protective cabs would reduce the exposure to these types of injuries.
- Roof bolting injuries are often attributed to bolting from a basket. Use extra safety precautions when bolting from a basket, or use mechanical bolters.
- Injuries can be reduced by examining, testing, and scaling the mine roof and rib before drilling and cleaning bottom holes.
- Loading explosives puts the worker at risk of rock falls that may result in

*(See next page)*
August

shoulder and back injuries. Protective clothing or gear could be used that would lessen the impact or deflect these small rock pieces.

- Face drilling accidents result in the highest injury severity in terms of days lost as well as several fatalities. Many of the nonfatal face drilling incidents are associated with the victim being outside of the cab, usually changing drill steel or checking the drill alignment. Perhaps moving the location of where the drill steel is being changed, away from the drilled face to an area where the rib and roof are stable, could reduce some of these injuries.

- Other or miscellaneous worker activities included instances in which several victims entered a recently blasted face area and were fatally injured by roof or face falls due to rock loosened by a blast. Hazard training would be a useful tool to emphasize the severe groundfall risk associated with a freshly blasted mine face and the proper procedures for entering the area.

With more than 75% of the underground stone fatalities related to groundfalls (Figure 4), understanding and addressing past roof and rib trends is critical to ensure a safe future for mine workers in the underground stone industry.

References


Part 2
Joseph A. Holmes Safety Awards Program

Criteria

Type “A-1” Awards—For Acts of Heroism

The awards are medals, with Medal of Honor Certificates and Certificates of Honor. These awards for personal heroism for distinguished services in the saving of a life are given regardless of whether the act was performed in the line of duty or elsewhere by an active or inactive employee of any branch of mining, quarrying, and mineral industries.

The committee may also recommend awards for individuals who commit heroic acts while temporarily associated with the mine extractive industries. Applications must be submitted within two years of the date the incident occurred.

Individuals involved in group action who displayed extraordinary courage may be singled out for a Medal of Honor award with the others receiving Certificates of Honor.

Medal of Honor awards are given for any one or combination of the following actions:

1. In the performance of an act to save life, the individual loses his or her own life.
2. In the performance of an act, the individual seriously risks his or her own life, but saves the lives of one or more persons.
3. Attempting at serious risk of his or her own life to save the life of one or more persons without success.

Certificates of Honor are given for any one or combination of the following actions:

1. Assisting in saving a life, at some personal risk, while working under the direction of another person.
2. Removing or assisting in removing the subject from an electrified circuit at some personal risk.
3. Exhibiting skill in modern lifesaving methods and practices in an effort to save life while also taking some personal risk.
4. Giving warning at personal risk of impending danger to others.
5. Directing individuals to a place of safety while exposed to some personal danger.
6. Staying at his or her post of duty in presence of impending danger to self and others.
7. Assisting with others collectively at personal risk to save the lives of one or more persons.

The work of trained mine rescue teams does not normally constitute eligibility for Type A awards. Extraordinary cases will receive consideration.

The following information is required on applications and must be submitted in time to reach the Secretary/Treasurer of the Association by February 15:

1. Name and occupation of each person recommended for an award.
2. Name and address of employer.
3. MSHA mine identification number.
4. Place and date of the incident.
5. Name of other person or persons involved.

(See next page)
August

Type "A-2" Awards for Life Savers

This award is given for saving or attempting to save a life using modern life saving techniques and/or quick and appropriate action in an attempt to save a life. No risk to the rescuer’s own life is required.

The recipient of this award receives a Life Savers Certificate.

The act may occur in the line of duty or elsewhere by an active or inactive employee of any branch of the mining or related industries. Individuals who are temporarily associated with the mining and related industries may also be eligible.

The act would have to be documented and submitted to the National Council within two years after the occurrence.

The act would consist of one or more of the following actions:

1. Performing mouth-to-mouth or some other type of artificial ventilation.
2. Performing CPR.
3. Performing an anti-choking maneuver.
4. Performing other life saving first aid techniques.
5. The performance of an act involving quick thinking and decision making that prevents others from being seriously injured or prevents the loss of additional life.

The work of trained mine rescue teams, ambulance attendants, or professional health personnel would not normally be eligible for this award. Extraordinary cases will receive consideration.

The Hero Awards Committee must review and approve each case. The Secretary/Treasurer will forward applications to the members of the committee for their review and comment prior to the national meeting each year. The following information must reach the Secretary/Treasurer of the Association by March 1:

1. Name and occupation of each person recommended for an award.
2. Name and address of employer.
3. MSHA mine or contractor identification number, if applicable.
4. Place and date of the incident.
5. Name of other person(s) involved.
6. Complete details of occurrence, including the actions of the individual(s) involved.

The current Type A awards application in the publication "Organizing Chapters and Councils for the Holmes Safety Association" may be used.
Since our first survey was conducted in 1994, employee awareness of disability procedures has increased, but that is not enough," said Fred Scardellette, vice president of disability management product development and marketing for Intracorp, the company that principally sponsored the study. "Our latest survey shows that following an injury or the onset of illness, employees also express a need to talk about their finances, how to recover more quickly and, as absence extends, job security."

"Overall, survey results suggest that employers should emphasize to supervisors and human resource professionals the importance of more frequent conversation with employees about their disability benefits before and after injuries and illnesses," he said. "Injured or ill employees are not only concerned about their benefits but also about their health and their jobs. The survey documents interest, for instance, in more information about speeding up recovery."

When supervisors, Human Resource managers or case managers talk repeatedly with employees who are losing time from work, they are more likely to identify ways of speeding up their return, such as flex time or modified work duties. This problem-solving can help employees feel more satisfied with their employers and prepared to return to work. In contrast, employees who are dissatisfied with their benefits, or with their employer's treatment of them during their absence, miss more days of work—sometimes twice as many.

Because the factors that most influence an employee's return to work, including financial worries and medical condition, vary from person to person, the timing, nature and extent of employer-to-employee communication should also be personalized. For example, for employees who had little tenure in their job, or who were less well educated, finances presented the greatest topic of concern.

The study also found that employees whose injuries or illnesses were non-work related tended to feel better informed and more satisfied with the disability process than employees with occupational-related disabilities. "We recommend more aggressive attention to information and counseling needs, especially for occu-

(See next page)
pational injuries and illnesses. It makes sense to customize communication for those workers to help minimize their concerns,” Scardellette said. Employers should focus particularly on employees who suffer an occupational illness (as opposed to an injury) and an employee who is absent from work for an extended length of time, as these two groups often express a higher degree of confusion about disability benefits.

Article from a May 7, 2001 edition of the Occupational Safety & Health Newsletter.

PLANNING YOUR CARDIOVASCULAR WORKOUT—FITNESS LEVELS AND GOALS

Current Level of Fitness
Any personal exercise plan must take into account your current level of fitness. Fortunately, you determined your cardiovascular fitness level during the recent assessment process. As you recall, you fell into one of three levels:

Level 1—Basic Conditioning. Persons at this level need to gradually improve their level of basic conditioning in order to participate in a rigorous physical fitness program. Non-exercisers and those who don’t exercise enough to have a lasting fitness effect fall into this category.

Level 2—General Fitness. Persons at this level demonstrate some positive fitness and health effects from exercise. Maintaining at least this level of fitness is considered the minimum requirement for any fitness program. However, higher levels of fitness may be appropriate for miners.

Level 3—Performance Fitness. Persons at this
level experience the full health benefits associated with good physical fitness. They also demonstrate adequate levels of fitness for the task-specific performance requirements of mine inspection.

**Personal Fitness Goals**

You also need to determine your personal fitness goals for the workout. Options are:

- **Bronze Medal**—Maintain at least minimum levels of fitness to promote good health.
- **Silver Medal**—Achieve gradual, progressive improvement beyond minimum or current levels of fitness.
- **Gold Medal**—Significantly exceed basic fitness and health requirements; “be all that you can be.”

The goals you establish are important, so think them through carefully. They must be realistic—goals that you are willing and able to accomplish. Some considerations might include the time you have available, other personal or work commitments, personal motivation and interest, past history of exercise, obstacles you expect to encounter, support (or lack of it) from family and friends, and so forth.

**DEVELOPING YOUR EXERCISE PLAN**

This planning approach provides guidelines on the amount of time you need to devote to the cardiovascular component of your workout. The time spent is based on your cardiovascular fitness level (1, 2, or 3), your fitness goal (gold, silver, or bronze), and on the type and intensity of the aerobic activity(ies) you choose. A flexibility exercise session is included as a cool-down.

Using the FITT principle learned earlier, cardiovascular workout requirements can be summarized as follows:

- **Frequency** – A minimum of three combined workouts per week; others can be added as desired.
- **Intensity** – Determined by the type of activity chosen; use the “talk test” or “intensity check” to monitor intensity during the workout.
- **Time** – A minimum of 15-20 minutes, depending on your fitness level, fitness goal, and the intensity of the activity chosen (higher intensity activities require less time for the same benefit).
- **Type** – Selection among aerobic activity options should be based on personal needs and interests.

*(See next page)*
THE RICE PRINCIPLE

Proper physical conditioning can help prevent injuries, but sooner or later, most people experience strains or sprains. This is particularly true for exercisers who push too hard, too fast, or too long before they are ready. Improvements in fitness must come gradually and progressively. If an injury occurs, the acronym RICE is often used to describe general guidelines for immediate (first 48 hours) treatment.

■ Rest — The activity should be discontinued as soon as pain or injury is noticed. Continued exercise may further aggravate the injury. Listen to your body—it’s trying to tell you something. Use the concept, “Train, don’t strain; if stressed, get rest,” instead of “no pain, no gain.” Rest should continue until symptoms of pain and injury subside.

■ Ice — An ice pack should be applied immediately to a new injury. Ice constricts blood vessels, decreasing swelling and blood flow, and reducing pain and inflammation. Ice should be used for the first 48 hours, 20 minutes on followed by 20 minutes off. Ice should not be applied directly to the skin; wrap the ice in a towel and move its location frequently to avoid frostbite. Remember, during the first 48 hours or until swelling has subsided, the application of heat can actually make an injury worse.

■ Compression — Compressing the injured area reduces swelling and the pooling of blood. At first, a wet wrap may be used to provide compression. Start away from the injury and wrap toward the heart. Later, an elastic bandage can be used. The area should be wrapped firmly, but not so tight as to cut off circulation. During the early stages of severe swelling, the wrap should be loosened every 30 minutes, then reapplied. Compression is not necessary at bedtime unless pain interferes with sleeping.

■ Elevation — Initially, elevate the injury so it is higher than the heart whenever possible (even during sleep). Continue elevation until swelling has subsided. Gravity prevents pooling of the blood and other fluids.

See a physician immediately if:
1. Pain is severe.
2. Pain persists for more than two days.
3. The injured area cannot be moved.
4. An injury does not seem to be healing after reasonable home treatment.
Winter Alert
It's Coming...
August

TRAM 2001/National Mine Instructors Seminar

October 9-11, 2001
National Mine Health and Safety Academy, Beckley, West Virginia

If you are a mine trainer, this is one conference you don’t want to miss!
• Do you want to network with other trainers who face the same concerns that you do?
• Do you want free access to new training materials?
• Do you want to know more about
  √ Training technology?
  √ A specific safety or health topic?
  √ Recent or pending MSHA legislation?
  √ Improving your instructional techniques?
  √ Finding different ways to present the same information?
  √ Giving your annual refresher training a breath of fresh air?

If your answer is “yes” to any of these questions, you should plan to join the hundreds of participants who attend this annual event. The major feature of this 3-day seminar is the 65-70 different workshop presentations. You can choose those topics that fit your needs:

• M/NM or Coal (Surface or Underground)
• Safety
• Health
• Technology/Computer Applications
• Instructional Techniques
• Regulatory Issues

You will also be able to browse through our training materials exhibit. Various companies and organizations will also be displaying other materials (most of it free) that can help you in your training.

To register for this FREE seminar, call 304/256-3252, or complete the registration form below and fax it to 304/256-3251.

-----------------------------------Cut----------------------------------
TRAM 2001/National Mine Instructors Seminar
October 9-11, 2001

Name: _________________________________
Position: _______________________________
Organization: ___________________________
Address: ___________________________________________________________________
City: __________________ State: __________ Zip Code __________

Telephone (include area code): _______________
☐ Please send me more information
OH Deer!

Deer are the most common animals involved in auto collision accidents. Nationwide, a collision with a deer results in damages costing $2,000 to repair. Annually, 7,000 motorists are injured from these collisions, with over 100 fatalities. These collisions are also responsible for the deaths of an estimated 350,000 deer each year.

During the day, it’s easier to see deer near roadways. However, deer have natural camouflage that makes detecting them difficult. In the evening hours, it is extremely difficult to see deer. Since deer are active in the early mornings and evenings, drive with extra care. No matter the hour, if you spot a deer while driving, slow down. Chances are there are more deer in the area and it will be easier to see them if you are traveling at a lower speed. Deer also have the tendency to “freeze” from approaching car headlights.

So be a ‘deer’ and drive safely.

Article taken from an MSHA-All Employees Safety Message by Charles I. Hochman (MSHA)
August

Join Today! and Grow with us...

Apply for Membership...

Membership is free. Your organization can become a Joseph A. Holmes Safety Association Chapter by completing a membership application and submitting it to the Holmes Safety Association.

Contact Person: ___________________________ Phone No. ______________

Company Name: ___________________________

Street/P.O. Box: __________________________ City: ______________

State: ______ Zip: _______ E-Mail Address: _______________________

MSHA ID Number: _________________________

Type of Product: __________________________

Type of Operation: Coal ___ Underground ___ Surface ___ Mill ___ Other ______

Name you would like to call the chapter being established:

__________________________

__________________________

Name and organization of person assisting in recruiting this application:

__________________________

__________________________

Signature of Applicant: ___________________________ Date: ____________

Send to: Joseph A. Holmes Safety Association

P.O. Box 4187

Falls Church, VA 22044-0187

or

Telephone: (703) 235-8264

Fax: (703) 235-9412
New Membership or Address Changes?

For address changes and new subscription requests, contact: Bob Rhea
Joseph A. Holmes Safety Association Bulletin
Mailing List
MSHA-US DOL
4015 Wilson Blvd.
Rm. 523A
Arlington, VA 22203-1984
703/235-1400
Fax: 703/235-9412
e-mail: rhea-robert@msha.gov

Please address any comments to:
Donald Starr
Joseph A. Holmes Safety Association Bulletin
MSHA-US DOL
National Mine Health and Safety Academy
1301 Airport Road
Beaver, WV 25813-9426
Please call us at 304/256-3283 or
Fax us at 304/256-3524
e-mail: starr-donald@msha.gov

Reminder: The District Council Safety Competition for 2001 is underway - please remember that if you are participating this year, you need to mail your quarterly report to:

Mine Safety & Health Administration
Educational Policy and Development
Joseph A. Holmes Safety Association Bulletin
P.O. Box 4187
Falls Church, Virginia 22044-0187
### Officers of the Joseph A. Holmes Safety Association

**President:**
*Doyle Fink,* Federal, Texas

**First Vice President:**
*Harry Tuggle,* Labor, Pennsylvania

**2nd Vice President:**
*William Vance,* Mgmt., New Mexico

**3rd Vice President:**
*Chuck Edwards,* Supplier, Pennsylvania

**4th Vice President:**
*Doug Conaway,* State, West Virginia

**Secretary-Treasurer:**
*Pat Hurley,* Federal, Virginia

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
<th>State</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bob Glatter</td>
<td>Federal</td>
<td>VA</td>
</tr>
<tr>
<td>Linda Herbst</td>
<td>Federal</td>
<td>OH</td>
</tr>
<tr>
<td>Tommy Hooker</td>
<td>Federal</td>
<td>CO</td>
</tr>
<tr>
<td>Jim Hackworth</td>
<td>Federal</td>
<td>VA</td>
</tr>
<tr>
<td>Whitey Jacobson</td>
<td>Federal</td>
<td>TX</td>
</tr>
<tr>
<td>Jerry Johnson</td>
<td>Federal</td>
<td>WV</td>
</tr>
<tr>
<td>Jeff Kravitz</td>
<td>Federal</td>
<td>PA</td>
</tr>
<tr>
<td>Jack A. Kuzar</td>
<td>Federal</td>
<td>PA</td>
</tr>
<tr>
<td>Cheryl McGill</td>
<td>Federal</td>
<td>PA</td>
</tr>
<tr>
<td>Jon Montgomery</td>
<td>Federal</td>
<td>NY</td>
</tr>
<tr>
<td>Jim Myer</td>
<td>Federal</td>
<td>OH</td>
</tr>
<tr>
<td>Joseph Pavlovich</td>
<td>Federal</td>
<td>KY</td>
</tr>
<tr>
<td>Leland Payne</td>
<td>Federal</td>
<td>IN</td>
</tr>
<tr>
<td>James Petrie</td>
<td>Federal</td>
<td>PA</td>
</tr>
<tr>
<td>Bob Randolph</td>
<td>Federal</td>
<td>PA</td>
</tr>
<tr>
<td>Martin Rosta</td>
<td>Federal</td>
<td>AL</td>
</tr>
<tr>
<td>Donna Schorr</td>
<td>Federal</td>
<td>PA</td>
</tr>
<tr>
<td>John Shatuck</td>
<td>Federal</td>
<td>VA</td>
</tr>
<tr>
<td>Bill Slusser</td>
<td>Federal</td>
<td>PA</td>
</tr>
<tr>
<td>Donald Starr</td>
<td>Federal</td>
<td>WV</td>
</tr>
<tr>
<td>Cindy Shumiloff</td>
<td>Federal</td>
<td>WV</td>
</tr>
<tr>
<td>Emmitt Sullivan</td>
<td>Federal</td>
<td>WA</td>
</tr>
<tr>
<td>Judy Tate</td>
<td>Federal</td>
<td>TX</td>
</tr>
<tr>
<td>Timothy Thompson</td>
<td>Federal</td>
<td>WV</td>
</tr>
<tr>
<td>Dave Weaver</td>
<td>Federal</td>
<td>MO</td>
</tr>
<tr>
<td>Richard Wood</td>
<td>Federal</td>
<td>WV</td>
</tr>
<tr>
<td>Rod Brelan</td>
<td>Federal</td>
<td>CO</td>
</tr>
<tr>
<td>Paul Bizich</td>
<td>Federal</td>
<td>PA</td>
</tr>
<tr>
<td>Jesse Cole</td>
<td>Federal</td>
<td>WV</td>
</tr>
<tr>
<td>John Collins</td>
<td>Federal</td>
<td>OH</td>
</tr>
<tr>
<td>Don Conrad</td>
<td>Federal</td>
<td>PA</td>
</tr>
<tr>
<td>Sharon Cook</td>
<td>Federal</td>
<td>WV</td>
</tr>
<tr>
<td>Dave Couillard</td>
<td>Federal</td>
<td>MN</td>
</tr>
<tr>
<td>Mike Davis</td>
<td>Federal</td>
<td>TX</td>
</tr>
<tr>
<td>Ron Deaton</td>
<td>Federal</td>
<td>KY</td>
</tr>
<tr>
<td>Bruce Dial</td>
<td>Federal</td>
<td>WV</td>
</tr>
<tr>
<td>Jeff Duncan</td>
<td>Federal</td>
<td>VA</td>
</tr>
<tr>
<td>Roger Carlson</td>
<td>Labor</td>
<td>MN</td>
</tr>
<tr>
<td>Joe Main</td>
<td>Labor</td>
<td>DC</td>
</tr>
<tr>
<td>John Riggi</td>
<td>Labor</td>
<td>PA</td>
</tr>
<tr>
<td>Alan Vozel</td>
<td>Labor</td>
<td>PA</td>
</tr>
<tr>
<td>Mike White</td>
<td>Labor</td>
<td>DC</td>
</tr>
<tr>
<td>Walt Wise</td>
<td>Labor</td>
<td>DC</td>
</tr>
</tbody>
</table>
**Management**

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
<th>State</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lloyd Armstrong</td>
<td>Mgmt.</td>
<td>MN</td>
</tr>
<tr>
<td>Robert Biggams</td>
<td>Mgmt.</td>
<td>PA</td>
</tr>
<tr>
<td>H.L. Boling</td>
<td>Mgmt.</td>
<td>AZ</td>
</tr>
<tr>
<td>Richard Burns</td>
<td>Mgmt.</td>
<td>WY</td>
</tr>
<tr>
<td>Jim Dean</td>
<td>Mgmt.</td>
<td>WV</td>
</tr>
<tr>
<td>Dave File</td>
<td>Mgmt.</td>
<td>TX</td>
</tr>
<tr>
<td>Larry Harshburger</td>
<td>Mgmt.</td>
<td>IN</td>
</tr>
<tr>
<td>Andrew Hewitson</td>
<td>Mgmt.</td>
<td>PA</td>
</tr>
<tr>
<td>Matt Hindman</td>
<td>Mgmt.</td>
<td>PA</td>
</tr>
<tr>
<td>Glen Hood</td>
<td>Mgmt.</td>
<td>TX</td>
</tr>
<tr>
<td>Dennis Johnson</td>
<td>Mgmt.</td>
<td>TX</td>
</tr>
<tr>
<td>Rae Johnson</td>
<td>Mgmt.</td>
<td>NM</td>
</tr>
<tr>
<td>Joe Kinnikin</td>
<td>Mgmt.</td>
<td>NM</td>
</tr>
<tr>
<td>Brian Luby</td>
<td>Mgmt.</td>
<td>WV</td>
</tr>
<tr>
<td>Ernest Marcum</td>
<td>Mgmt.</td>
<td>NY</td>
</tr>
<tr>
<td>Scott McKenna</td>
<td>Mgmt.</td>
<td>MT</td>
</tr>
<tr>
<td>Gerald E. Morris</td>
<td>Mgmt.</td>
<td>WV</td>
</tr>
<tr>
<td>Bill Moser</td>
<td>Mgmt.</td>
<td>TX</td>
</tr>
<tr>
<td>Arturo Munoz</td>
<td>Mgmt.</td>
<td>MN</td>
</tr>
<tr>
<td>Greg Oster</td>
<td>Mgmt.</td>
<td>TX</td>
</tr>
<tr>
<td>Francis Petty</td>
<td>Mgmt.</td>
<td>TX</td>
</tr>
<tr>
<td>David Rebuck</td>
<td>Mgmt.</td>
<td>PA</td>
</tr>
<tr>
<td>L.C. Richards</td>
<td>Mgmt.</td>
<td>TX</td>
</tr>
<tr>
<td>Subash Sethi</td>
<td>Mgmt.</td>
<td>NM</td>
</tr>
<tr>
<td>Cheryl Suzio</td>
<td>Mgmt.</td>
<td>CT</td>
</tr>
<tr>
<td>Ed Tucker</td>
<td>Mgmt.</td>
<td>TX</td>
</tr>
<tr>
<td>Penny Traver</td>
<td>Mgmt.</td>
<td>MI</td>
</tr>
<tr>
<td>Tim Williamson</td>
<td>Mgmt.</td>
<td>CT</td>
</tr>
</tbody>
</table>

**Contractor**

- Tanya Cox (Contractor, TX)
- John Hoffman (Contractor, TX)

**Supplier**

- Steve Lipe (Supplier, AZ)
- Steve Walker (Supplier, WV)

**Insurance**

- Bruce Krug (Insurance, PA)

**Academia**

- D.J. Johnson (Academia, IL)

**Emeritus**

- Vern Demich (Emeritus, PA)
- George Krug (Emeritus, FL)
- Nancy Stalcy (Emeritus, MI)
- Al Simonson (Emeritus, MN)
- Harry Thompson (Emeritus, PA)
- Sam Vancil (Emeritus, IL)

**State**

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
<th>State</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mary Bauer</td>
<td>State</td>
<td>IL</td>
</tr>
<tr>
<td>Ron Cunningham</td>
<td>State</td>
<td>OK</td>
</tr>
<tr>
<td>Steve Dunn</td>
<td>State</td>
<td>MO</td>
</tr>
<tr>
<td>Larry Frisbie</td>
<td>State</td>
<td>WA</td>
</tr>
<tr>
<td>William Garay</td>
<td>State</td>
<td>PA</td>
</tr>
<tr>
<td>Lee Graham</td>
<td>State</td>
<td>KS</td>
</tr>
<tr>
<td>Tony Grbac</td>
<td>State</td>
<td>FL</td>
</tr>
<tr>
<td>Ben Hart</td>
<td>State</td>
<td>PA</td>
</tr>
<tr>
<td>Paul Hummel</td>
<td>State</td>
<td>IL</td>
</tr>
<tr>
<td>D.J. Johnson</td>
<td>State</td>
<td>KY</td>
</tr>
<tr>
<td>Phillip Johnson</td>
<td>State</td>
<td>AZ</td>
</tr>
<tr>
<td>Douglas Martin</td>
<td>State</td>
<td>NM</td>
</tr>
<tr>
<td>Gibert Miera</td>
<td>State</td>
<td>IL</td>
</tr>
<tr>
<td>Dick Mottershaw</td>
<td>State</td>
<td>TX</td>
</tr>
<tr>
<td>Bob Novello</td>
<td>State</td>
<td>PA</td>
</tr>
<tr>
<td>Joseph Sbaffoni</td>
<td>State</td>
<td>PA</td>
</tr>
</tbody>
</table>