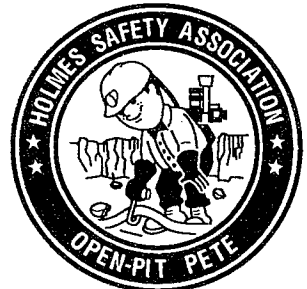
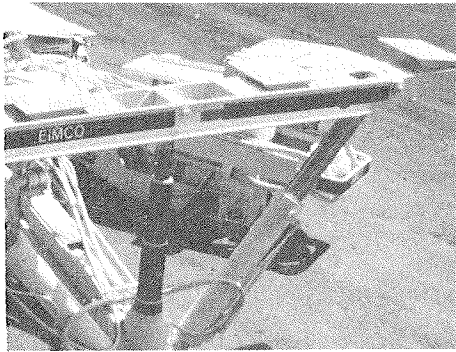

BULLETIN



August 1993



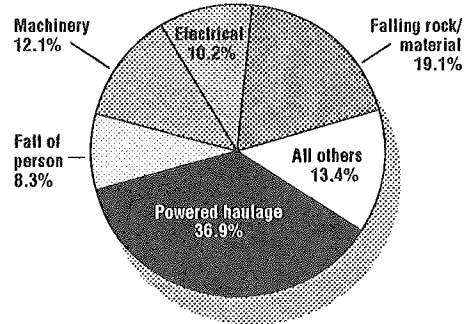
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Please note: The views and conclusions expressed in HSA Bulletin articles are those of the authors and should not be interpreted as representing official policy of the Mine Safety and Health Administration.

KEEP US IN CIRCULATION

The Holmes Safety Association Bulletin contains safety articles on a variety of subjects: fatal accident abstracts, studies, posters and other 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.

Welcome new members

NAME	CHAPTER NO.	LOCATION	NAME	CHAPTER NO.	LOCATION
Appalachian Tire Products, Inc.	10419	Charleston, WV	Martin & Wright Paving	10444	McMinnville, OR
Lacon Pit	10420	Lacon, IL	Keizer Sand & Gravel	10445	Keizer, OR
Caribou County	10421	Soda Springs, ID	Coos Bay Timber Operations, Inc.	10446	North Bend, OR
ASARCO Ray Complex	10422	Hayden, AZ	Wheeler Excavation & Trucking	10447	Boise, ID
State Sand & Gravel, Inc.	10423	Little Rock, CA	Kamph Rock Crushing Company	10448	McMinnville, OR
Cerstley Mine	10424	Borone, CA	Benton County Road Department	10449	Bentonville, AR
Standard Industrial Minerals	10425	Reno, NV	Campbell's Creek No. 3	10450	Belle, WV
A-1 Grit Co.—Redlands Plant	10426	Redlands, CA	Tanda, Inc.	10451	Fort Smith, AR
All-American Asphalt	10427	Corowa, CA	Annie's Green Works, Inc.	10452	Ozark, AR
Oasis Contracting, Inc.	10428	Mt. Carbon, WV	AC & S, Inc.	10453	Toledo, OH
Galena-Platteville Mine	10429	N. Aurora, IL	Boral Gypsum	10454	Nashville, AR
Linn Mining—Johnstown #1	10430	Bridgeport, WV	Unimin-Emmett Plant	10455	Emmett, ID
A & C Products, Inc.	10431	Reelsville, IN	MSHA Boise Field Office	10456	Boise, ID
Energy West Mining Co.	10432	Huntington, UT	Hastings Construction, Inc.	10457	Belle, WV
S.W. Johnson Construction Co., Inc.	10433	Medina, TX	R & P Sales, Inc.	10458	Kenova, WV
Wyroc	10434	Del Mar, CA	Dayton Sand & Gravel Company	10459	Sheridan, OR
Divita Coal	10435	Cedar Grove, WV	Level Land Mining Corporation	10460	Cufflet, WV
Benton County Stone	10436	Gravette, AR	Brown Sand, Inc.	10461	Manteca, CA
Hancock Quarry	10437	Hancock, NY	Lum's Backhoe Service	10462	Russellville, AR
Martin & Wright Paving	10438	McMinnville, OR	City Corporation	10463	Russellville, AR
Interstate Concrete & Asphalt	10439	Coeur d'Alene, ID	Local 6 ILWU	10464	Benicia, CA
Hansen Truck Stop, Inc.	10440	Fortuna, CA	PCM	10465	Concord, CA
Reid-Wolf, Inc.	10441	Sheridan, OR	Port Costa Materials, Inc.	10466	Valley, CA
CC Meisel Portable Crusher	10442	McMinnville, OR	Hess Pumice Products, Inc.	10467	Malad, ID
La Fever Excavating, Inc.	10443	Bovina Center, NY	M & M Gravel Sales, Inc.	10468	El Campo, Tx

Roof Evaluation—Accident Prevention

REAP—a program developed to promote health and safety awareness in mining

A message from Tony Turyn, MSHA REAP Coordinator

This is an update of what is happening with MSHA's REAP Program.

Despite improvements in injury rates in underground coal mines, falls of roof and rib still continue as the major cause of death. In fact, of the 11 underground coal mine fatalities, as of June, 21, 1993, 7 have been roof- and rib-type fatalities. The 7 fatalities represent 63.6 percent of all underground fatalities—this is an appallingly high number. We must stop the fatalities.

We produce monthly posters with messages relating to roof and rib safety. These posters are designed to be used on company bulletin boards and in other areas of the mine. We solicit ideas for posters from the mining community.

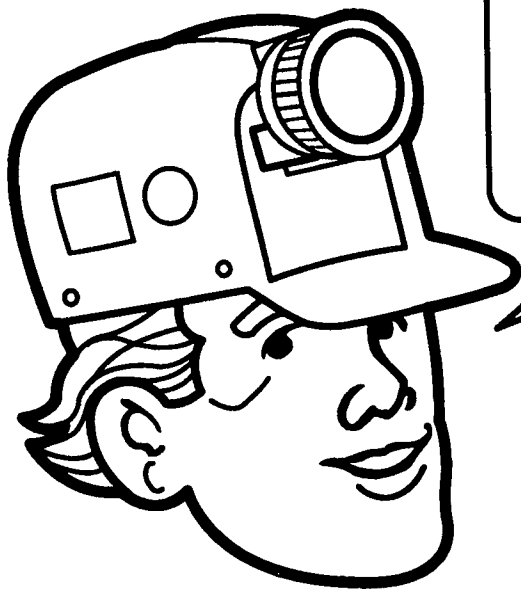
Hard hat stickers were made and given

to each district. The sticker has the slogan "Inby is Out." The sticker is to be given to every underground coal miner.

The National Mine Health and Safety Academy produced a videotape on a twin boom roof bolting machine. The tape can be used as a JSA training tool for the mining community.

Seven seminars on groundfall prevention were held by the Bureau of Mines. The seminars were held in West Virginia, Virginia, and Kentucky.

In our effort to do better, we must work together and share the responsibility of getting the message out. Our major concern is to make miners aware of potential hazards and to identify ways that they can perform their job in a safer manner.



**Is your life worth the minute
you're trying to save?
Stay out of the Death Zone!**



Holmes Safety Association

Monthly safety topic



Multiple fatal haulage accident

GENERAL INFORMATION: A loaded haulage truck lost its brakes while descending a steep grade and traveled 800 feet before it collided with a car, killing the two occupants who were on their way to work. The haulage road on which the accident occurred is presently maintained by two companies and varies from 4.2 miles to 5 miles in length, depending on which surface pit is loading out coal.

DESCRIPTION OF THE ACCIDENT: At about 5:30 a.m., two truck drivers arrived at the parking lot for their normal shift and drove to the strip mine to be loaded. One driver left the strip mine at about 6:25 a.m., followed by the second truck at 6:30 a.m.

The trip was normal except, according to the second driver, for a slight 'sponginess' of the brakes for the first 4 miles.

When the second driver approached the "Culvert-Head" curve, he radioed "Culvert-Head loaded, coming down." As he entered the curve he applied the air brakes on the truck and felt no response. He tried the brakes two more times and still felt no response. He could hear a 'hissing' sound as if there was an air leak. He then radioed, "I ain't got nothing." He continued through the left turn and was aware of a wide area in the roadway and a large pile of refuse material which was located approximately 800 feet below the "Culvert-Head" curve. The area was called the "Lower Slate Dump" curve. The driver intended to stop the truck by running it into the

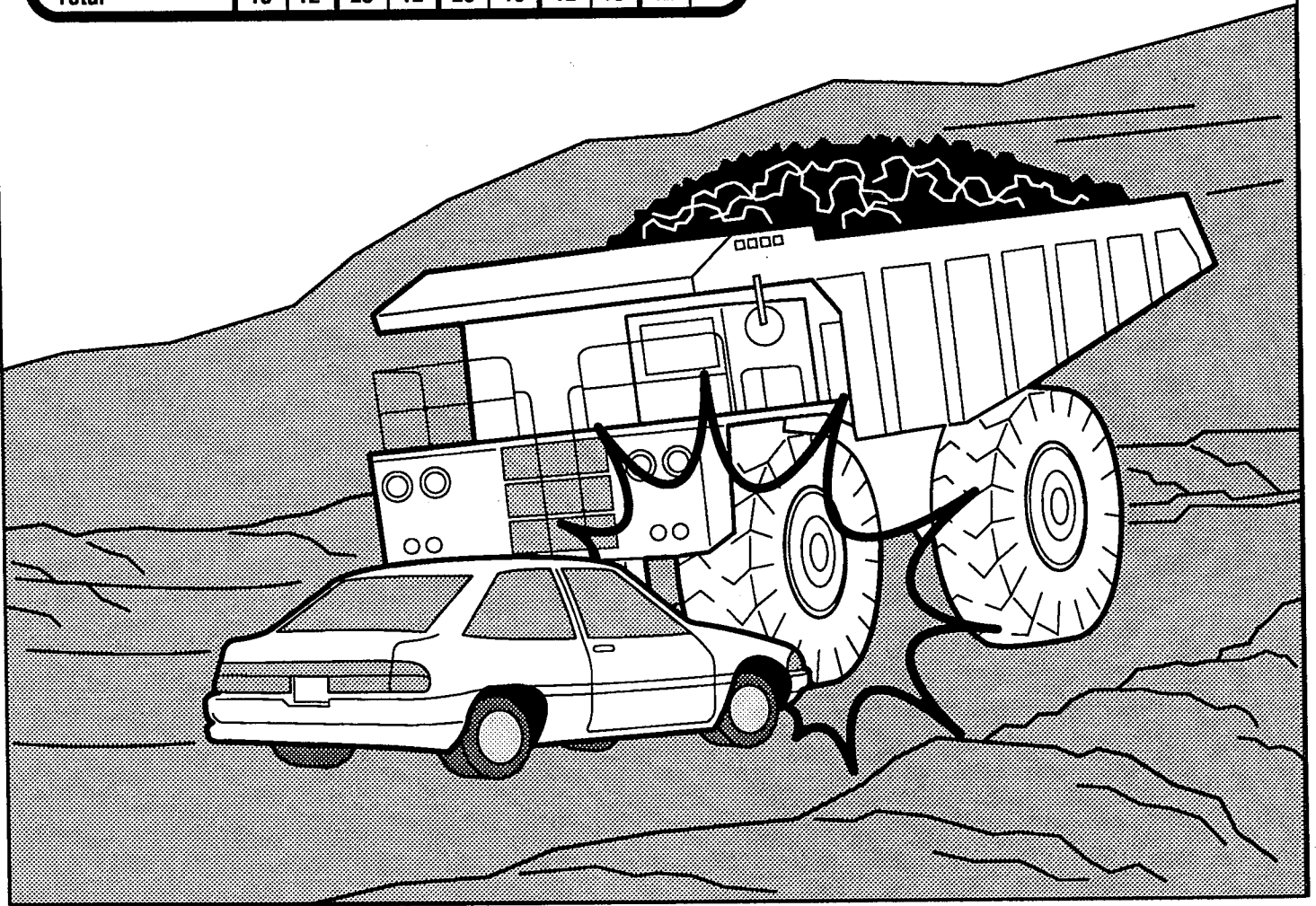
embankment or the refuse area. He did not steer the truck into the ditch on the highwall side of the road as he believed the truck would overturn. About 270 feet from the accident site he applied the trailer brake with no effect. At this time, the only braking power afforded the truck was the engine brake which was unable to stop the vehicle.

As the truck was gaining speed, he attempted to engage the emergency/parking ('Maxi') brake. Setting the emergency brake required the operator to reach across the two gear shift levers to engage the emergency brake knob which was located on the dashboard approximately 30 inches to the right of the driver's seat. As the ride was getting rougher, he apparently struck one of the two levers, disengaging the transmission and/or rear axles. With the drive train out of gear the engine stalled due to the effects of the engine brake. When the engine stalled, the hydraulic power-assisted steering unit ceased to function and he was unable to steer the vehicle.

Shortly before 7:00 a.m. the car in which the victims were riding arrived on mine property and overtook the two ascending haulage trucks. About 7:00 a.m. two coal haulage trucks owned by another company were ascending the haulage road. Both drivers heard the radio message that a truck was at "Culvert-Head" and was coming down loaded. As the vehicle passed him, the lead truck driver flashed his headlights to warn the car. The two ascending truck drivers pulled over to the right side to allow the victims to pass.

Coal mine fatalities to date—thru 07-14 -93

Type	1989		1990		1991		1992		1993	
	UG	S	UG	S	UG	S	UG	S	UG	S
Roof fall	10	0	11	0	14	0	6	0	8	0
Haulage	0	1	5	3	2	4	1	1	1	4
Machinery	2	4	4	1	0	2	4	1	2	1
Electrical	2	1	3	1	1	0	1	1	1	3
Other	1	6	0	7	3	7	0	7	0	3
Total	15	12	23	12	20	13	12	10	12	11



At approximately 7:05 a.m. the accident occurred. The coal haulage truck impacted the car on the left side of the vehicle. The two vehicles traveled approximately 40 feet from the point of impact up an elevated earthen mound to where the truck rolled onto its right side.

The rescue squad responded and the victims were transported to the regional hospital where they were pronounced dead upon

arrival. The driver of the haulage truck did not receive any physical injuries.

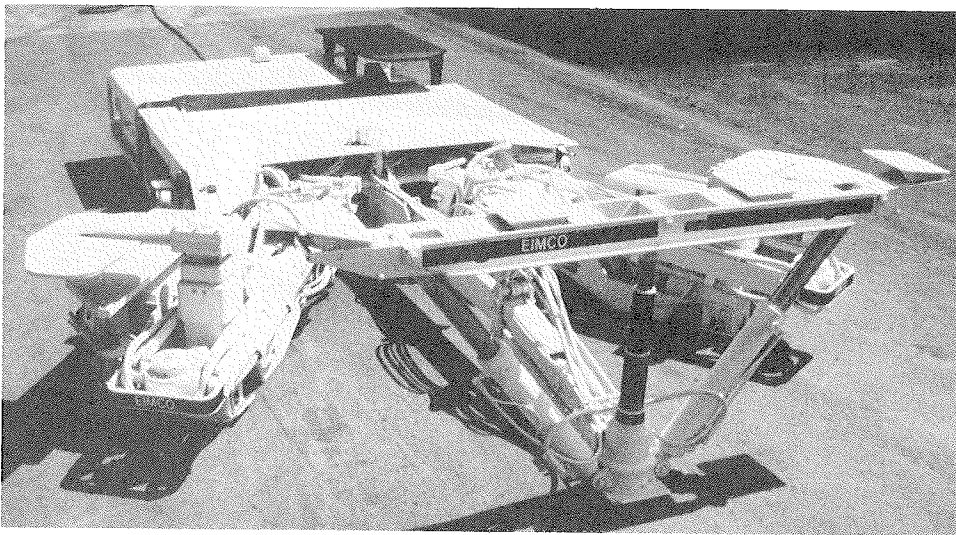
CONCLUSION: The accident was caused by the mechanical failure of the treadle valve which resulted in the loss of air pressure and failure of the braking system. Through further action by the operator to stop the vehicle, the transmission may have become disengaged resulting in the loss of power steering.

Reducing lost-time accidents during roof bolting

By Joseph Larry, P.E.

In West Virginia during calendar year 1992, three of the ten underground coal mining fatalities occurred to Roof Bolter Operators. Two of the three fatalities were due to human error and/or lack of understanding of the perils of the workplace.

Roof Bolting has been identified as the most dangerous job in underground coal mining.¹ The National Safety Council and countless insurance and academic studies established that 96 percent of all accidents are caused by unsafe actions of people.²



One Operator was fatally injured when he reached over the drill boom assembly to put hydraulic oil into the machine. Apparently he engaged the control lever that raised the drill boom assembly; the drill boom assembly crushed him against the roof. The second fatal accident happened when the Bolter Operator, while performing his task, was struck by the continuous miner shearer. When he was struck, the Bolter Operator was installing bolts while he was under unsupported top. The third accident occurred when the Bolter Operator was pinned between the canopy and the drill boom assembly. In the first two accidents the Operators had 0.5 years and 0.7 years experience, respectively, at the Bolter task.

The underground coal mining industry has achieved an enviable record of reducing mine fatalities. The industry has reduced fatal injuries from an average of 93.0 deaths in the 5-year period ending 1981 to an average of 41.6 during the 5-year period ending 1991—a 55% reduction (See Table 1). Much of the success in reducing fatalities can be

attributed to better awareness programs by the individual coal companies and those programs initiated by the Mine Health and safety Administration.

Table 1.—Underground coal mining fatalities

1977	82	1987	42
1978	67	1988	29
1979	105	1989	44
1980	100	1990	48
1981	111	1991	45

But the industry must consider new and innovative awareness programs to maintain the rate of mine death reduction. When 96% of accidents are caused by human error, it is unlikely that any awareness program would prevent *all* accidents. Some



miners are still killed or injured by walking under unsupported top.

Fatalities cause pain and grief to the families and the mining community. Almost as traumatic are lost-time accidents. These result in medical treatment, hospital care, and (too often) in permanent disability. Let us analyze the lost-time accident rate in West Virginia³ during the period 1989-1992.

Table 2.—Lost-time accident rate per 200,000 employee-hours

1989	7.88
1990	7.82
1991	7.80
1992	8.58

The lost-time accident rate declined but then jumped 10% in 1992 compared to 1991. Should we be alarmed? Yes! However, and more importantly, each individual company (just as West Virginia has been highlighted) should analyze its accidents to determine if its numbers are increasing,

too. If so, each should re-evaluate its safety programs.

It should be noted⁴ that the seven largest coal producing companies had lost-time accident rates ranging from 1.6 for Consol, Inc., to 3.1 for Kerr-McGee Coal during the 5-year period ending 1991. In 1991 the top 25 producers accounted for 61% of underground production and 26% of the fatalities.

Given the lower lost-time accident rate of the top producers, the remaining coal operators must have a higher lost-time accident rate. The

study stated that the average injury rates in mines employing fewer than 50 workers was 10.7 injuries per 200,000 man-hours. The lost-time accident cost for these small operators will range from \$0.40 to \$0.60 per annual ton. The cost becomes exorbitant if a fatality occurs.

The cost of lost-time accidents can be exorbitant for many coal operators, particularly the smaller operators. The cost components include compensation for injuries resulting in death or permanent disability, medical treatment and hospital care, investigation of a fatal accident, and low employee morale during post fatality or amputation injury resulting in production losses.

To reduce the fatality and/or lost-time accident rates, it should be apparent that the industry and individual companies should analyze the types of tasks that cause the greatest number of injuries. Another study⁵ details the frequency of injuries based on job title and source of injury. The

Roof Bolter Operator experienced the greatest number of *lost-time* accidents. In West Virginia in 1991 of the 2,026 injuries reported, 311 injuries or 15.4% happened to the Roof Bolter Operator. In the source of injury category, 205 injuries or 10% were due to fall of roof. Thus, the Roof Bolter Operator and those injured in roof falls are involved in 1 in 4 lost-time injuries.

Geological conditions such as kettle bottoms, fractures in the roof rock, or a weak overlying strata are a few of the causes of roof falls. Some roof falls have occurred because bolts were not anchored in a firm overlying rock strata or because bolts were not properly torqued. Usually the evidence is buried in the rubble of the fall.

To reduce fatalities, the education of the Roof Bolter Operator and Helper should be expanded. Miners avoid the Roof Bolter task, not because it is laborious, but because of their perception of danger. Many are assigned as Bolter Operators with only a minimum understanding of the requirements of the job. As a result, many are injured because they have not been taught that the task of roof bolting can be performed safely. The roof bolting job is the most important of the hourly personnel. As you are walking along the entry, have you ever looked at the overhead bolts and wondered how astute the Bolter Operator was who installed the bolts? Your life is virtually in his hands! You should be insistent that he receive the best of training.

Because the Bolter Operators are ex-



posed to the hazards of the workplace and the injury statistics are appalling, the Bolter Operators should be given extensive classroom training before they are assigned to the bolting task. An example of such training would be classroom instruction covering the following subjects:

(1) Concept of Roof Bolting. Understanding the purpose of roof bolting is important to safe and efficient performance of the task. They must learn about the reaction of the overlying strata after the coal has been mined. They should know about the causes of horsebacks, kettle bottoms, and cracks in the roof that may be unsafe unless attended to. They should also know the type of roof bolts or other fixtures that are being used in the mine roof support plan.

(2) Bolter controls and lubrication. Understanding the bolter and its operating features is important to safety. A discussion of the operating levers and the direction its respective function reacts is condu-

cive to safe machine operation. An overview of maintenance and lubrication can ensure a smoothly operating machine.

(3) **Safety and training.** Discussion of



Bolter Operator attitude, attentiveness, and why Bolter Operators are injured, and general safety procedures.

(4) **Mine roof control plan.** Discussion of the specifics of the mine roof control plan: how it was developed, why it is necessary to follow it. A review of the MSHA regulations pertaining to roof support is necessary in the education of the Operators.

(5) **Steps to roof bolting safely.** Discussion of the bolting routine during drilling and installing the bolts. Each step will cover safety pointers to prevent accidents. Some unsafe practices will be described that can lead to injury; these unsafe practices, or shortcuts, should not be used. Useful drilling techniques will be described that speed up the drilling cycle yet maintain safe standards.

If the classroom instructions do not include a hands-on instruction of the bolter lever controls used at the workplace (because it is not readily available), the Operator should be given instructions by an experienced Bolter Operator or supervisor at the time he/she reports for the new task duty.

Such classroom instructions are cost-effective and accomplish the following:

- (a) Teach miners to understand roof control and its purpose,
- (b) Teach Bolter Operators how to perform their task effectively and safely,
- (c) Instill a sense of pride in the skills used in the task of bolting, and
- (d) Reduce the number of

fatalities and lost-time accidents.

1) R. L. Grayson et al, "Risk Indices for Roof Bolter Injuries Using Microanalysis", *Mining Engineering*, February 1992

2) Richard L. Trumka, "The Status of Coal Mine Health and Safety", *Landmarc*, November/December 1988.

3) West Virginia Department of Natural Resources, "Annual Report," 1992.

4) Occupational Safety and Health Law Center, "Mine Safety Records for the Years 1987-1991."

5) Bhattacharjee et al, "Injury Experience Analysis for Risk Assessment and Safety Evaluation", *Mining Engineering*, December 1992

Joseph J. Larry received his B.S.E.M. degree from West Virginia University, is a Registered Professional Engineer, a mining consultant and the author of the book *Roof Bolting Without Injury*.

To all mine, plant, and quarry workers:

Do you ever go to work thinking you might have a serious accident, and never make it home again? While you're certainly aware that hazards exist in your workplace, you probably don't spend a lot of time thinking about them. You consider yourself a fairly safety-minded person who would never take a foolish risk.

Unfortunately, if you're like most people, you may occasionally choose to perform a task in an unsafe way. Why? Because you've done the job that way before, and you've never had an accident.

The fact is, if your personal safety program is based on luck, the odds are in your favor. Back in the 1960s a group of safety professionals analyzed 1,753,498 accidents reported by 297 companies. Representing 21 different industrial groups, the companies employed 1,750,000 people who worked over 3 billion hours during the exposure period analyzed. The "accident pyramid" graphically illustrates the results of the analysis: for every accident resulting in a major injury, there were ten minor injuries, 30 property damage accidents, and 600 incidents with no apparent injury or property damage.

Put another way, imagine that we're in a room together, and I'm holding a bowl of candy. Before offering you any, I inform you that, of the 641 pieces of candy in the bowl, 600 are delicious, but a little fattening; 30 will start to melt in your hand before you can put them in your mouth; ten have laxatives instead of chocolate in their centers; and one is laced with cyanide. With this information, would you be eager to grab a handful?

Since I don't think you have a death wish,

your likely answer would be "No." But don't congratulate yourself too soon. Consider some other scenarios:

You're in a production truck equipped with a seat belt, ready to start your shift. When you've worn *the* belt in the past, you've found it to be uncomfortable and confining. You've never had an accident while operating the truck. Will you buckle up?

Or, you're trying to keep product flowing in your plant when you discover that over-sized material has plugged up a crusher. The plant control console is 200 feet away, and it's the plant operator's lunch time. Will you lock out the power switch before you enter the crusher?

These are the kinds of choices you are faced with every day. You know which alternative is safe, and which isn't. Making an unsafe choice is just like picking up one of those candies and popping it into your mouth. Chances are you'll get away with it. Hey, you're betting your life that you'll get away with it! But one of these days, you might lose your bet.

On a summer day not long ago, a 50 year-old truck driver at a sand and gravel operation was greasing a universal joint on his dump truck with the bed partially raised. He had decided not to use a provided blocking device to hold the loaded dump box in the elevated position before working under it. In his 37 years of mining experience, all with the same company, he had probably done this job the same way many times. But this time, the truck driver's luck ran out. The dump box came down and crushed him between the bed and the frame.

A few months later at another sand and

gravel operation, a 41 year old plant operator was using a skid-steer loader to pull a conveyor belt onto a conveyor frame. A screw anchor shackle was attached to the belt through holes cut in it and was attached to the loader with a nylon rope. The shackle wore out of the conveyor belt due to pulling pressure and was propelled by the rope into the loader, striking the operator in the head, causing fatal injuries. The victim had more than five years of experience at his job, so it is likely that he had used the same equipment to perform similar tasks before. He may or may not have known about the existence of a fail-safe clamp that would have placed the pull load over a major portion of the conveyor belt, that became a slingshot when the shackle tore loose from it.

When you need to get a job done, you may get so absorbed in what you're doing that you forget about your safety. That's what happened to the truck driver and the plant operator. The possibility of an accident had never entered their minds. How many times have you read fatality reports about workers stepping on stockpiles to remove hang-ups, only to flow with the freed material to their deaths? Or about mechanics straining to remove the last bolts from unsecured machinery that subsequently crashes down on them? Each time I read about another accident I experience *deja vu*: it's happened before! Others have already paid in blood for the same mistake, so why must it be repeated?

To keep an accident from happening to you, start introducing something besides luck into your personal safety program. There are plenty of mining operations that have worked several consecutive years and millions of employee hours without experiencing a serious accident. Managers and workers at these

operations have not achieved their outstanding safety records by crossing their fingers and hoping for the best. At an injury-free workplace, everyone from the plant manager to the laborer has to be on the same page about the importance of safety. If not, accidents are bound to happen.

A proactive manager knows how to get people's attention, set a goal, and make it part of their daily business. Safety is not shunted off to the fuzzy realm of slogans, stickers, and lip-service, but is an integral part of the planning and decision-making process. That's not to say that there's anything wrong with slogans and stickers, but they have to be backed up by such positive actions as individual safety contacts and continuous training in safe job procedures. Safety must be inseparable from any notion supervisors and employees have of quality work. The shared belief has to be, "It can't be good if it isn't safe."

By measuring and rewarding behavior that ultimately creates a culture that values safety, an injury-free operation has much to teach us. Each individual in the organization works safely in his or her own perceived self-interest, which in turn contributes to the well-being of everyone else. Because safe work reduces losses, the entire operation becomes more profitable. The interests of the individual and the organization become indistinguishable, and the benefits that accrue to all are greater than anyone could have achieved alone.

If you have the good fortune to work at such a place, the odds are much improved that you will continue to return home safely after every shift, because you are depending on a great deal more than luck to make it happen.

MSHA people are always eager to help you prevent accidents.

Reprinted from the March 1993 issue of Cal Quarryman.

Warning signs



teenager may be headed for trouble. One signal by itself may be meaningless, but several in tandem are worth noticing and checking out. Some of these signals are obvious, some less so, and all of them have been suggested either by professionals or by teenagers and their parents. So, have you noticed:

1. A dramatic drop in grades at school.

This is a well-known warning sign. A teenager's explanation might be anything from an overload of work to a mysterious cabal of teachers who are out to get him or her. The explanation may have varying degrees of truth in it. The other truth is that when things are going badly for a teenager, grades and attendance fail. The other point to be made is that if you are in doubt as to what your teenager's grades are because you have not seen a report card lately, there is also cause to worry. Kids who have brought home A's and B's for years but who are now earning C's and even an occasional F will "lose" their report card and hope it will not be missed. In this case, no news is not good news.

Just as there are warning signals for diseases like alcoholism and cancer, so there are signals that your

2. A major change in friends.

This is a loaded subject because most

kids feel they have a right to associate with whomever they please. If you put a friend off limits, you are likely to encourage lying because your son or daughter will feel that deception is the only option. Peer relationships are a powerful force in every teenager's life.

What a parent should notice is a narrowing of a teenager's circle of friends. Keep track of your son's or daughter's friends and if you notice that his/her circle of friends is getting smaller or he/she seems to have no friends, bring the subject up some evening and see what kind of reaction you get. The reaction may tip off whether this is a warning sign or not.

Different friends mean different values and behavior. This can be good or bad. If a teenager's values and behavior are changing, previous friends will drop away and new friends will be found who will support this new set of values or kind of behavior. "Birds of a feather..." is an old proverb. It got to be an old proverb because there was truth in it.

3. All you ever talk about is discipline.

It is a drag for everyone concerned to spend week after week dishing out consequences for broken curfews and messy rooms. Once disciplinary issues have become so dominant that they define your relationship with your child, you and they are in trouble. First of all, it is not fun being around them and, second, they do not like being around you. Many parents tend to be either too soft or too strict. An even balance is hard to achieve. This does not mean it is not possible. Even if you are forced into a disciplinary role for a few months by a teenager who is testing you, be sure to keep it even-handed and, at the

same time, stay open to doing something for the fun of it with your boy or girl. This warning sign should be looked at in close relationship to the next one.

4. A major change in affect.

"Affect" is a word experts like to use. It means things like extreme irritability, temper tantrums or, worse yet, no apparent feelings at all — glacial indifference. Ask yourself the following questions: Are apparently reasonable comments or questions creating emotional explosions which seem to come from nowhere? Has your son or daughter gotten sneaky, refusing to look you in the eye? Has there been a switch from an upbeat, energetic approach to life to an apathetic, indifferent shrug which denies interest or involvement in anything?

Let us say you have "grounded" your teenager for some reason and he/she reacts by blowing up about who made you the boss or by shrugging the whole thing off. If this reaction is different from what you would normally expect, then it is time to look up and down this list and see what other signals you have missed.

5. A champagne taste on a beer budget.

Does your son/daughter have more money than you would expect? Has a beautiful ten-speed materialized from nowhere? One teenager told how he once brought home an expensive stereo component system, set it up in his room and played it for months before he was asked where he got it. He told his parents he borrowed it. "I wonder," he commented with a sparkle in his eye, "if they would have gone for a loan of another friend's Porsche?" On the other hand, does your kid have a lot less money with nothing to



show for the spent cash? A beer taste with a champagne budget might indicate drug or alcohol misuse.

6. Things are not going well at home.

This is a warning to look inward. Evidence keeps mounting that children grow up healthy when their parents have an obviously healthful, loving relationship. Kids get into trouble when they sense their

parents are in trouble with one another. The solution to a troublesome teenager might very well be fixing up things with the other people with whom you live. Kids growing up in single parent homes do as well as other kids, but they are able to do this because they have a father or mother who has other interests and who is getting his or her own need for affection and love met. If you are divorced and have not remarried, how good are you at meeting your own needs?

7. Your kid's bedroom.

You can tell a lot about any person by looking at his or her room. What you are looking for is change of some kind — from neatness to slob or, should you be so lucky, slob to neatness. Is it like a cave or a stage set from a horror movie? Does he/she want to paint the walls sludge brown or jet black? Are there blankets on the windows shutting out all light?

Normal disorder and off-beat colors are one thing, but a state of total disregard or indifference to health and environment is decidedly another. If you are afraid to go into your son's room because something might be lurking in there, it is a warning that something may be wrong. Time and again teenagers themselves brought up the look of a room as a clue to what was going on inside them.

8. Phone calls at odd hours.

"I'll get it!" when the phone rings at 11:30 on a school night could mean trouble.

This is when drug deals are made, when plans to run away are formed. Phone calls late at night after your known bedtime are cause for concern. Once again, straight forwardness is the key. If you listen in on the phone and hear a marijuana buy being set up, confront your son or daughter about it. You will have a big argument over privacy, undoubtedly. It is better, however, to put your teenager on notice that you do not approve of late calls than to let them continue. If you are suspicious, bring out your suspicions openly. Honesty can be encouraged. "If you're buying dope, I want to know about it. I'm not going to throw you out. I love you, but I want to know about it."

9. Extreme attention-getting behavior.

Every child needs a lot of attention. As mentioned earlier, you can pay a little now or a whole lot later. If a child gets enough attention from both parents and peers in everyday life, then his or her adolescence will be no more or less difficult than anyone else's. Abnormal attention-getting behavior includes having tantrums, dressing in unusually revealing clothes (if a girl), acting younger than one's age, carving initials in one's skin, coming home chronically late, hanging around the house all the time, a fascination with fire. Unexplained loss of liquor or a "misplaced" twenty dollar bill can be conscious or unconscious cries for attention from your child. Kids in cases like this both do and don't want to get caught. Mostly they do, especially if they sense they are not risking the loss of your affection.

10. A Walter Mitty in the living room.

All of us have dreams. Many dreams

should be encouraged. But if your child begins to live more and more in Walter Mittyland; if he/she dreams of doing things which are impossible, and those dreams cause a breakdown in everyday work and relationships; if a girl dreams of romance with a rock star so obsessively that she shuts herself off from relationships with boys her own age; if a boy dreams of a career as an astronaut but shows no energy in school ; if your child has either unrealistically high expectations or no expectations at all then he/she is walking away from reality. It is an early stage of psychosis and needs to be taken seriously. Your reactions, however, should not appear to be overly serious. Challenging your child about unrealistic fantasizing in a good-natured way can help. At least, you will find out how committed he/she is to the fantasy.

11. Your neighbors and friends are concerned.

One of the hardest things for Americans to do is to break the taboo which says, "Mind your own business; don't be a snitch." To go to a friend or neighbor and mention your worries about their son or daughter takes guts. If someone comes to you about your child, you know it is serious. Pay attention and do something about it.

The eleven warning signs listed above are just that—warning signs. There may very well be no danger ahead—only the possibility that there could be. In this case, the more warning signs that appear, the more likely something is wrong. Initially, the family should be told about it. If this does not work, there are many resources outside of the family which can help.

Statistical profile of powered haulage accidents in the mining industry

Accidents associated with powered haulage equipment at mining operations are often severe and costly. They account for a substantial portion of the industry's total fatalities and lost-time injuries. This article attempts to quantify the scope of this problem by presenting a brief overview of recent national statistics on powered haulage accidents. The analyses presented here are drawn from MSHA's data base of mining accidents for the 4 year period 1988 thru 1991. The data comes from the information that mine operators report to MSHA on form 7000-1. (The accident statistics cited in this article do not include accidents experienced by contractor employees.) MSHA's accident classification scheme considers powered haulage accidents to be those which are...

caused by the motion of the haulage unit, e.g., motors and rail cars, conveyors, shuttle cars, haulage trucks, front-end loaders, etc. Also includes any accidents caused by a moving part of the haulage unit.

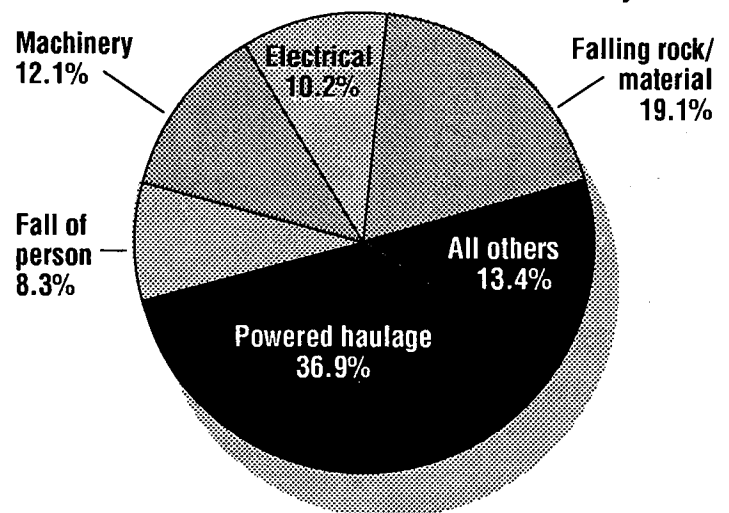
Where are powered haulage accidents happening? Table 1 breaks down all fatal and lost-time accidents due to powered haulage by type of mine. A total of 8,913 fatal and lost-time powered haulage accidents were reported to MSHA during 1988-91. The majority of such accidents at metal/nonmetal (M/MM) mines occurred at surface mining operations, whereas the majority of such accidents at coal mines occurred at underground operations.

Table 1.—Fatal and lost-time accidents due to powered haulage by mine type.

	Surface	Under-ground	Process-ing/Prep. Plants	Totals
Metal/Nonmetal.	..1,928..	.. 483..	.. 866..	..3,277..
Coal.....	.. 772..	..4,615..	.. 249..	..5,636..
Totals.....	..2,700..	..5,098..	..1,115..	..8,913..

Powered haulage accidents often produce very serious injuries. The average number of days of work missed following a lost-time powered haulage accident is 33.6 days. Powered haulage accidents are the leading cause of fatalities at M/NM mining operations (see Figure 1). They

Figure 1. Metal/Nonmetal mine fatalities by cause



account for over a third of all fatalities at these mines. Of the 58 powered haulage fatalities that occurred at M/NM operations, 49 occurred at surface mines, 2 at underground mines, and 7 at ore processing or preparation plants.

Powered haulage accidents are the second leading cause of fatalities at coal mining operations, accounting for 17.4% of the 218 fatalities (see Figure 2). Of the 38 pow-

ered haulage fatalities at coal operations, 7 occurred at surface mines, 24 at underground mines, and 7 at preparation plants.

What types of equipment cause these injuries? The types of equipment most frequently associated with powered haulage accidents at M/MM mines is as follows:

Ore haulage trucks (off highway)	23.2%
Loaders—all types	19.5%
Conveyors	19.3%
Other trucks	8.9%
Forklifts	6.4%
All other	22.7%

The types of equipment most frequently associated with powered haulage accidents at coal mines is as follows:

Shuttle cars	20.6%
Mancars & personnel carriers	18.7%
Scoops, ram cars & load-haul-dump ..	17.9%
Conveyors	10.5%
Ore haulage trucks (off highway)	7.6%
Locomotives & rail-mounted vehicles ..	6.9%
All other	17.8%

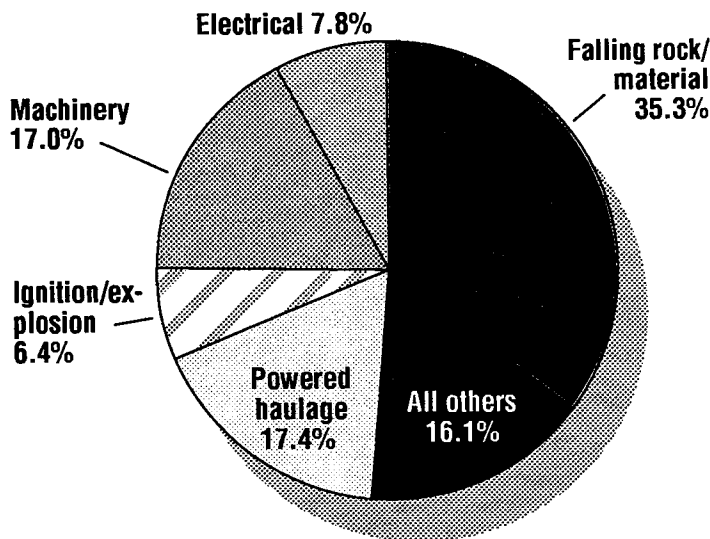


Figure 2.—Coal mine fatalities by cause

Big Sky Mine Rescue contest results

The Big Sky Mine Rescue contest took place on June 25-26, 1993, in Red Lodge, Montana. Listed below are the results from the competition:

1st place—Solvay Minerals—Green River, Wyoming

2nd place—WIPP “Silver” Carlsbad—New Mexico

3rd place—Stillwater Mining “Hard-rockers”—Nye, Montana

4th place—Reynolds Electrical and Engineering—“NTS Orange”—Las Vegas, Nevada

5th place—Asamera Minerals Cannon Mine—Wentachee, Washington

The Benchman Contest winner was Joe Baca from WIPP “Silver.”

Guilty until proven innocent

Or to be more precise, dangerous until proven safe. That's how all confined spaces should be thought of.

Consider these facts from recent U.S. studies of confined space fatalities:

- 95% of these fatalities were caused by a hazardous atmosphere such as oxygen deficiency (50%) or toxic or flammable gases. In most cases, your sense of smell is unable to detect the danger. However, all such conditions can be identified with the proper monitoring equipment.
- In 25% of the cases, the atmosphere was tested before entry. Conditions can change due to the work being performed (such as using solvents or welding). Continuous monitoring is essential in these circumstances.
- In 80% of the cases, the same entry had been done before, often many times, with no problems. Don't let familiarity lead to complacency. Conditions can change while you're away for coffee!
- 60% of the victims died while attempting to rescue others. Detailed rescue plans must be prepared before entry. The average emergency response time is seven minutes. Yet in an oxygen-deficient atmosphere, more than four min-



utes changes rescue into body recovery.

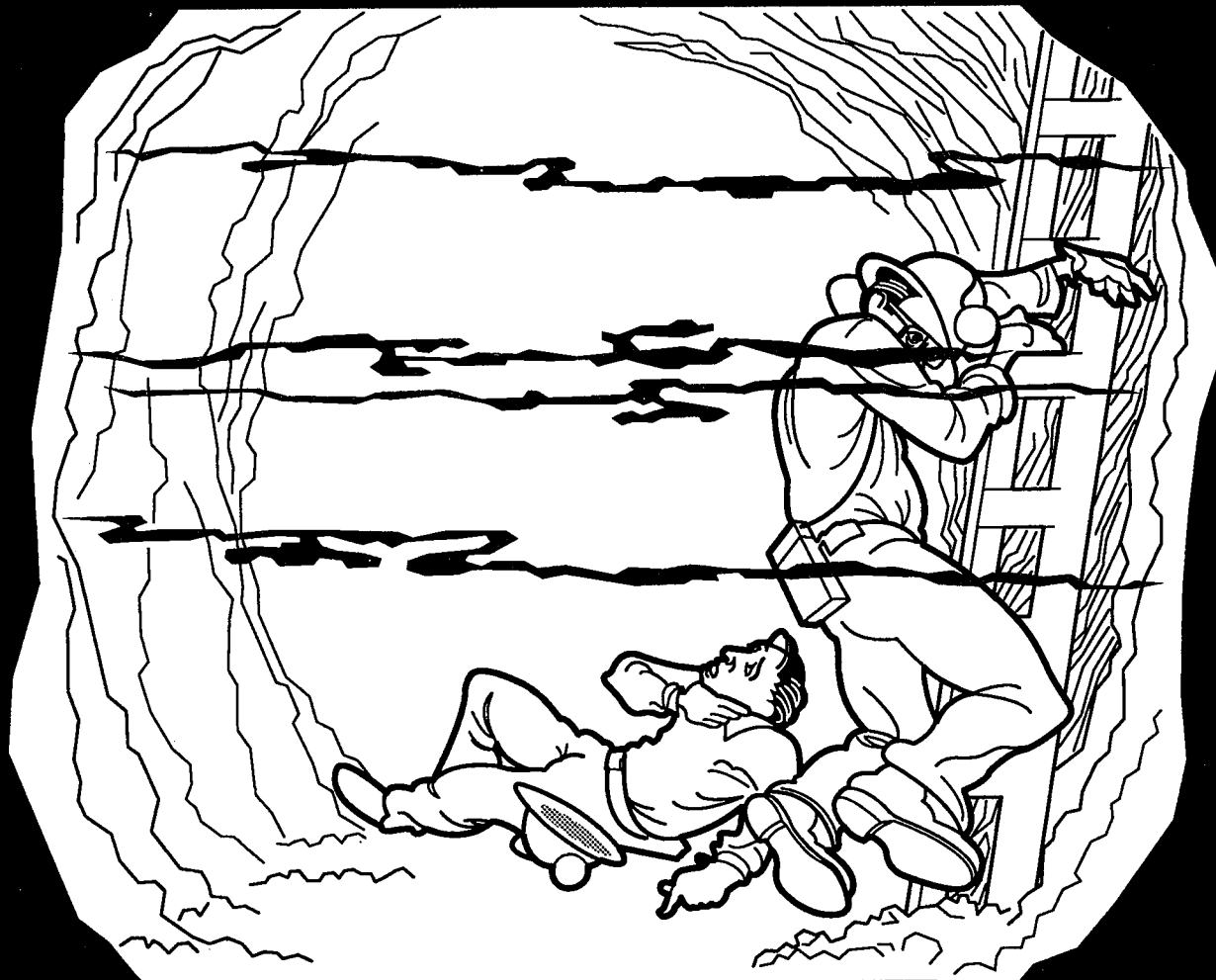
- Only 27% of the workers had written procedures to follow, and in all cases, the procedures were either inadequate or not followed. Careful planning is es-

essential before entry. Often, separate procedures are required for the different types of confined spaces in the workplace. Systems must be in place to ensure that the proper procedures are followed to the letter each and every time.

- In 64% of the cases, the work could have been performed from outside the confined space. Confined space entry has been estimated to be 50 to 100 times more dangerous than other industrial operations. Why expose yourself to this risk when you don't have to?
- Only 3% of the victims had received any training in confined space entry. Anyone required to enter a confined space should be thoroughly trained; and **everyone** should at least know how to recognize when confined space conditions exist—not as simple as you might think!

Reprinted from Ontario, Canada's Mines Safety Prevention Association's July 1993 issue of Safety Reminder.

Confined spaces are dangerous places



Know your escape route!

Courtesy of Ontario, Canada's Mines Accident Prevention Association

Stop the stress with ergonomics

Are your work stations wrapped in tape, padded by pillows and filled with grumpy employees? If you say yes, then it's time to tune in ergonomics, the study of workers and how they fit into their environment.

In these days of streamlined staffs and demands for increased productivity, you can't afford for your workers to be absent because of injury. Yet companies lose thousands of dollars and productive days each year for this very reason. Most equipment is designed for "the average person." But how many of your workers are taller, shorter, fatter, thinner, stronger or weaker than the average person? In most cases, workers just need more comfortable, adjustable equipment. And that \$200 chair is only a fraction of the cost of testing and rehabilitating an injured worker—not to mention lost productive time on the job.

Look around you

Supervisors have to be aware of the risk factors involved in ergonomic problems. If they are, they can spot problems that might be remedied fairly easily before someone really gets hurt.

The first thing to do is look at your workers. Are they performing highly repetitive tasks? Do they have to apply constant force to tools or machinery? Are they working in awkward positions? For example, crawling into tight spaces for repairs, using a wrench at arm's length or keeping their elbows up around their heads for long periods?

Are your workers "customizing" their workstations already? Are they sitting on

phone books or pillows, or taping padding to sharp corners?

Studies from Georgia Tech's Research Institute found most problems focused on wrists and hands.

If you see an employee rubbing his or her wrist, do you ignore it or ask? Supervisors should question problems and look for signals.

Discounting soreness and injury as part of the job is one of the worst things supervisors can do. It's important to talk to workers and find out what's bothering them. Employees often have good ideas about solutions; and if they feel that they're involved and the solution will really help, they are much more likely to use new equipment properly.

Addressing the problem

Taking a cue from workers, you may suggest some quick fixes to relieve stress. But short-term solutions should never become the rule. And often, if ignored, these quickies can cause problems of their own. For example, padding a metal chair may relieve stress on legs, but it also can change the level of back support and strain the lower back. Supervisors should always follow up more than once.

More practical solutions include:

- *Expand rotations.* It increases flexibility.
- *Give workers a break.* "Micro breaks"—standing and stretching—to give hands, and other body parts under stress, a few minutes several times a day to relax.

- *Get the word out.* Supervisors must be part of a team to identify problems. Don't wait until your department loses more time to stress injuries and workers turn up with permanent disabilities.

Once changes are in place, make sure they stay in place; if they don't, find out

why. If the company installs new equipment, but workers don't know how to use it, problems won't improve. Employees won't make the adjustments without clear instructions.

Reprinted from the January-March 1993 issue of Nevada's Mine Safety Sense.

Automatic crash protection for passenger cars: *Your choice in 1993*

One important feature to consider when buying a new car is the type of occupant protection it offers. Most people are familiar with the manual safety belts that have been standard equipment in cars for many years. Over the past few years, car manufacturers have been phasing in *automatic* crash protection (air bags or automatic belts). Since September 1, 1989, all new cars sold in the United States are required to have an automatic crash protection system as standard equipment.

Whether your car is equipped with automatic safety belts, air bags or manual safety belts, all have one purpose—to reduce your risk of injury or death. This article will discuss some facts you should know about automatic safety belts and air bags.

For example, if your car has an **air bag**, you will notice that it also has a safety belt system. Air bags provide **supplemental** protection. They are effective primarily in protecting occupants involved in frontal collisions, but offer little or no protection in a side impact or rollover. **For maximum safety, lap and shoulder belts should always be**

used in air bag-equipped cars.

An air bag remains out of sight until you need it. In a moderate-to-high-speed frontal crash, the air bag will rapidly inflate into a cushion that protects the occupant from hitting the steering wheel, dashboard or other hard surfaces. The bag deflates within a split second after impact and will not interfere with control of the car. Sometimes, occupants may receive abrasions (much like a "rug burn") when the air bag deploys, but when they occur, they heal quickly and are a small price to pay for the life-saving protection the bag provides.

Automatic safety belts are called "automatic" because no action is required by the occupants to engage the system. Although automatic belts come in a variety of configurations, there are basically two types: **motorized or non-motorized.**

Motorized belts are shoulder belts anchored and driven by small electric motors in the door frame; when you turn on the ignition, these motors move the belts into place. Manual lap belts are also provided with motorized safety belts, and these must be used for full

protection.

Non-motorized belts are anchored to the car door. When you close the door, the belt moves in position around you automatically. Many non-motorized automatic belts are combination shoulder and lap belts, but some manufacturers have automatic shoulder belts with a **manual** lap belt. Failure to use the manual lap belt can result in a phenomenon known as "submarining" where the occupant slides downward and out of the belt in a crash. Vehicles that do not contain a lap belt have a knee bolster, located in the lower dash, to prevent submarining.

No matter what kind of automatic system your car has, if it has a manual lap belt, you must buckle it for maximum protection. Use the complete system the manufacturer installed in your car and follow the manufacturer's instructions listed in your car owner's manual.

All automatic belts can be disconnected in case of an emergency. However, under normal operating conditions, the automatic belt should always be fastened.

For information on motor vehicle problems related to safety, contact

Auto safety hotline 1-800-424-9393

By calling the **HOTLINE**, you can

- report a defect (see below),
- obtain recall information on vehicles and items of motor vehicle equipment, or
- obtain consumer information on such subjects as child safety seats, crash test results, safety belts, drunk driving, etc.

For information on auto problems other than safety, contact:

- **Federal Trade Commission**
 Pennsylvania Ave. & 6th St., N.W.
 Washington, D.C. 20580
 202-326-3128

You can request a brochure on warranty laws from the FTC called "Buying A Used Car."

FTC handles:

- advertising practices
- credit practices
- used car warranty & defects labeling
- trade abuses
- warranties
- nonsafety defects

- **Environmental Protection Administration**
 401 M St., S.W.
 Washington, D.C. 20460
 202-828-3535

EPA handles:

- air pollution
- fuel economy ratings

- **U.S. Department of Justice**
 Consumer Litigation
 Pennsylvania Ave. & 10th St., N.W.
 Washington, D.C. 20530
 202-514-6786

Justice enforces:—sticker price labeling

Reprinted from the December 1992 issue of the U.S. Department of Transportation's Consumer Information Bulletin.

Aggregate mining fatalities down in 1992

By Steven Prokopy

The number of employee fatalities at aggregate operations went down in 1992 compared to 1991, from 32 to 27. But fatal ac-

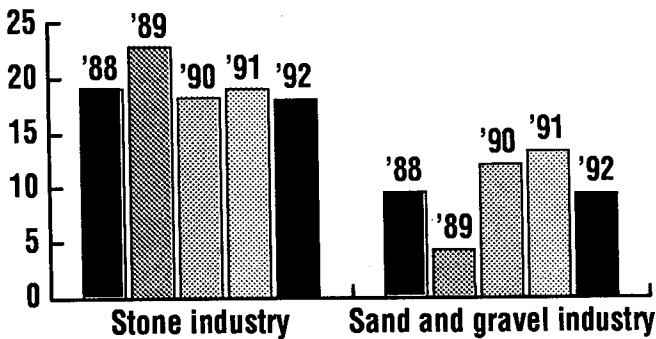
cidents involving contractor personnel rose in the same time period, from six to nine last year, according to the Mine Safety and Health Administration (MSHA) and shown in charts 1 and 2.

In addition, MSHA tracked several other trends in mining fatalities, as shown in charts 3 through 5. While these figures represent all types of mining, they indicate the factors and demographics concerning those workers who might be more likely to suffer fatalities.

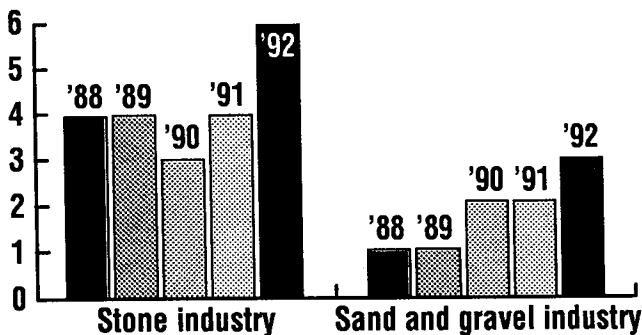
Reprinted with permission of the MacLean Hunter Publishing Company from their May 1993 issue of Rock products.

Mining fatalities, 1988-92

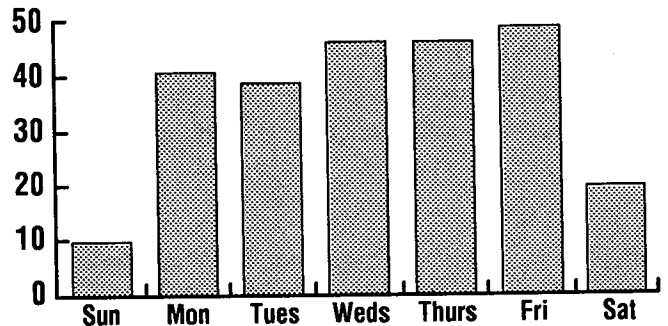
1. Aggregate employee fatalities



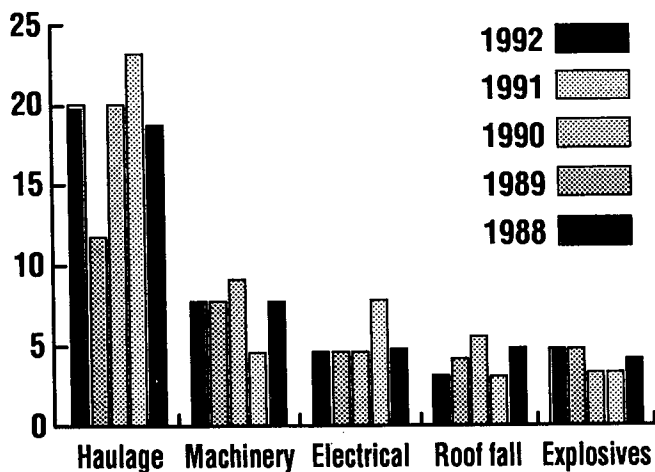
2. Contractor fatalities



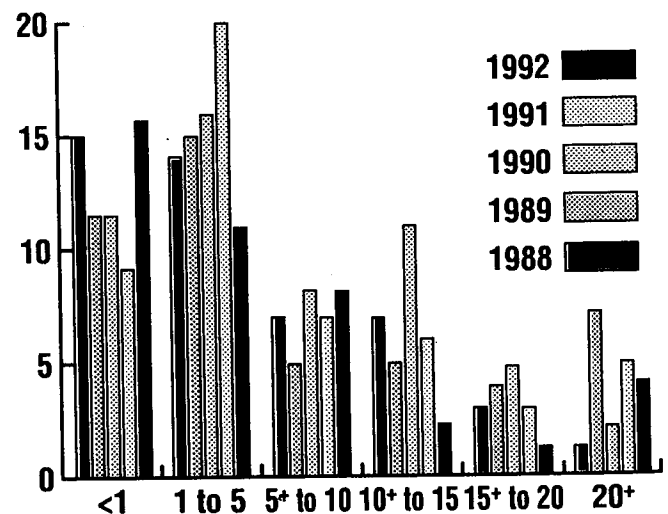
3. Fatalities by day of week, 1988-92*



4. Fatalities by leading causes*



5. Fatalities by experience* (in years)



All 1991 and 1992 data are preliminary.

*Includes metal and nonmetal mines.

Holmes Safety Association

Monthly safety topic



Fatal explosion accident

GENERAL INFORMATION: A 38-year-old welder was fatally injured while welding on the bucket of a front-end loader underground. An explosion occurred in the oxygen and acetylene gas cylinder compartment on a maintenance truck which was parked nearby. The victim had a total of 4 years of mining experience, all as a welder at this operation.

The operation was an underground limestone mine. The mine was normally operated one 10-hour shift, 6 days a week. A total of 33 persons was employed.

The mine was developed by a room and pillar mining method. Twenty headings were advanced in the production cycle. After drilling and blasting, broken stone was loaded by front-end loaders into haulage trucks and transported to a primary crusher underground. The material was then moved by belt conveyor to a milling facility on the surface for secondary crushing, sizing and screening. The finished products were stockpiled for sale to customers.

DESCRIPTION OF ACCIDENT: On the day of the accident the victim reported for work at 7:15 a.m., his normal starting time. He discussed work assignments for the day with the Mine Superintendent and a contract welder. A short time later he traveled to the BB-5 intersection underground (this heading was about 45 feet wide by 25 feet high) to weld a new lip on the bucket of the

front-end loader. Crosscut centers were 80 feet. These dimensions were typical of headings throughout the mine.

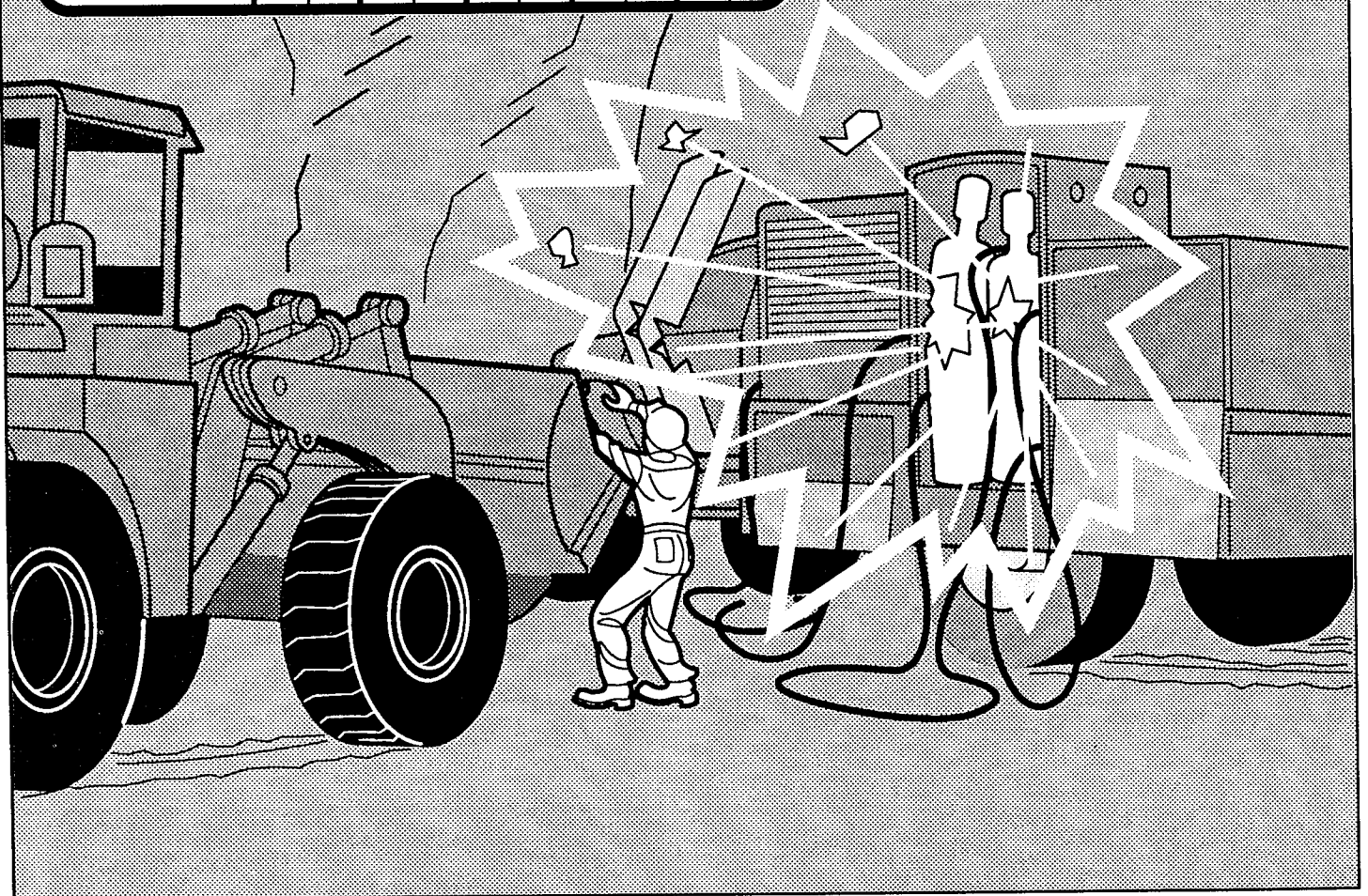
The welding truck was parked alongside the loader. The oxygen and acetylene cylinder compartment was located on the driver's side of the truck which was adjacent to the loader bucket. The compartment was 2.5 feet wide and 5.6 feet high and was constructed of 14-gauge steel. The compartment contained two size A oxygen cylinders and one No. 4.5 acetylene cylinder. The torch, hoses and regulator assemblies all were contained inside the cylinder compartment. A diesel driven electric welding machine was installed on the bed of the truck.

The contract welder completed a job on a drill elsewhere in the mine and then returned to help the victim complete work on the loader. They cut the old lip off the bucket, put away their torches, and took a brief coffee break. The contract welder then climbed into the front-end loader to improve the position of the bucket for welding the new lip. The victim was standing between the loader and the welding truck approximately 3 feet from the cylinder compartment. He applied two rods and when he started the third, the explosion occurred. The force of the explosion propelled the victim 16 feet away.

The contract welder immediately dismounted the loader and checked the vic-

Metal and Nonmetal mine fatalities to date—thru 07-19 -93

Type	1989		1990		1991		1992		1993	
	UG	S	UG	S	UG	S	UG	S	UG	S
Fall of roof/back	3	0	1	0	1	0	3	0	2	0
Haulage	1	3	1	12	0	5	1	8	1	6
Machinery	0	4	0	6	0	1	0	5	1	4
Electrical	1	1	0	1	0	5	0	3	0	1
Other	3	14	2	9	4	9	0	4	0	4
Total	8	22	4	28	5	20	4	20	6	15



tim. He then flagged down a haulage truck to notify company officials. An ambulance was summoned and the victim was later pronounced dead at the scene by the county coroner.

CONCLUSION: The accident was caused by the victim's failure to close the valves on the oxygen and acetylene cylinders after completing the cutting task. Also,

the acetylene valve on the cutting torch was not fully closed. This resulted in an accumulation of acetylene inside the cylinder compartment of the truck which was ignited by sparks generated from arc welding on the loader bucket less than three feet away.

This year's Holmes Safety Association's annual meeting was the largest ever

This year's annual meeting took place in San Antonio, Texas, on June 1-3. The 280 attendees made this the most attended conference in the Association's long history.

Opening remarks were delivered by the Association's President Mr. Thomas J. Ward, Jr., on Wednesday, June 2nd. The moderator for the opening session was Thomas Sharpe. Other speakers included: William Holgate,



Don Conrad presenting award to Richie Phillips of Coal-Mac Inc.

MSHA District 9 District Manager and John Radomsky, South Central Assistant District Manager. The former Secretary-Treasurer of the Association, Bill Hoover, gave an inspirational talk about safety and the part the Association played in reducing the number of fatalities in the mining industry. Mr. Hoover received a standing ovation from the audience at the conclusion of his speech.



Jon Montgomery presenting "Woman of the Year" Award to Judy Tate

The keynote address was made by Carroll G. Embrey, President of Northwestern Resources. Mr. Embrey's motivational speech focused on how mining has changed over the



Frank Schwamberger presenting Medal of Honor award to Heraclio Flores of Fordyce Co.

past 20 years. His presentation included a slide program depicting mining techniques and equipment used by miners in the early 20th century.

The attendees went to various breakout sessions for the remainder of the conference. The subjects receiving the most interest at the meeting were:

- Supervisory training,
- Dealing with the public,



Gary Cook and Judy Tate jointly presenting the Ival Van Horne Memorial Award to Ron Keaton



Judy Tate and Don Conrad presenting a Certificate of Merit to Ricky Stewart of Alcoa

- Giving effective safety talks,
- Job Safety Analysis, and
- Innovative techniques for Part 48

Various safety awards were presented at the Association's banquet Thursday evening, June 3.

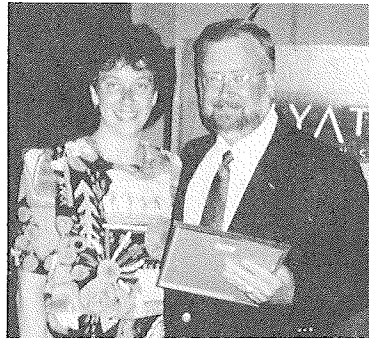


Harry Tuggle presenting the Great Lakes District Council competition award to Penny Traver and Nancy Staley

The moderator for the event was Joseph Pavlovich, District 9 Subdistrict Manager, and the banquet speaker was Frank Schwamberger, Acting Director, Educational Policy and Development. Mr. Schwamberger



Harry Tuggle presenting the District Council Competition to Vern Demich, representing the Kiski District Council in Pennsylvania



Donna Schorr presenting the "Man of the Year" award to Gary Moore of the Pittsburg & Midway Coal Co.



T.J. Ward presenting the Program Committee Award to John Shutack

talked about safety in the mining industry and how important it was to recognize individuals who performed heroic acts and risked their lives to save the lives of other people.

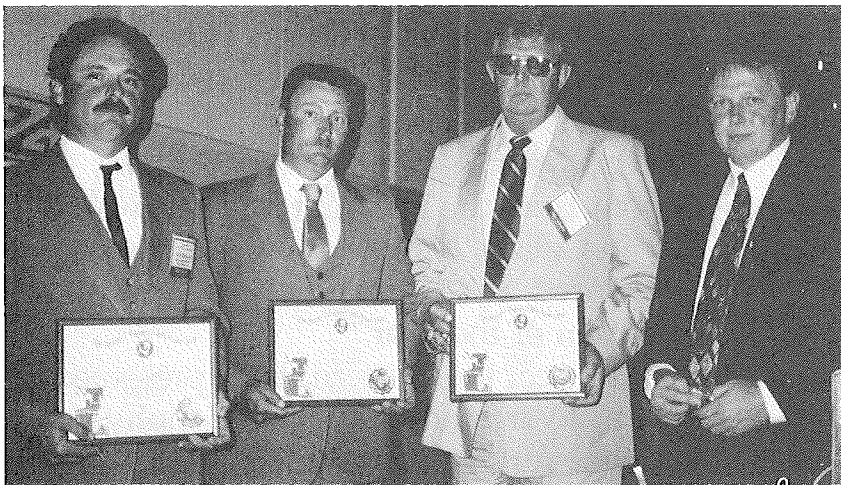
The following five individuals were recipients of the Association's Medal of Honor:

- David A. Buffington, Lehigh Portland Cement Co.
- Bernard E. Clem, Lehigh Portland Cement Co.
- Robert E. Eyler, Lehigh Portland Cement Co.
- Heraclio Flores, Fordyce Co.

Jackie E. Clay, Asarco Co.

Listed below are the recipients of the Association's Certificate of Honor:

- Dale Williams, Michigan Limestone
- John Williams, Michigan Limestone
- Daniel Tasser, Michigan Limestone



Frank Schwamberger presenting Hero Awards to, from the left, David A. Buffington, Robert E. Eyler and Bernard E. Clem of the Lehigh Portland Cement Co.



Fred Bowman, of the Illinois Department of Mines and Minerals, accepting the Certificate of Honor for the Arclar Co., from Don Conrad



Carroll G. Embry, CEO of Northwestern Resources Co. and keynote speaker



Harry Tuggle presenting a District Council Competition Award to Joe Sbaffoni and Donna Schorr for the William Scotty Groves District Council in Pennsylvania



John Shutack presenting an award to Janet Holland



John Shutack presenting an award to Bonnie Moore



John Shutack presenting an award to Barb Kiepke



T.J. Ward, Jr., presenting a Program Committee Award to Irmadell Pugh

- Glenn Negley, Michigan Limestone
- Tim Winters, Arclar Co.
- John D. Tucker, Sr., Arclar Co.
- William Winters, Arclar Co.
- Terry Akers, Coal-Mac Inc.
- Danny Blackburn, Coal-Mac Inc.
- Davie Blackburn, Coal-Mac Inc.
- Robert Ratliff, Coal-Mac Inc.
- Teddy Resse, Coal-Mac Inc.
- Ernie Jude, Coal-Mac Inc.
- Howard Hall, Coal-Mac Inc.
- Warren Howard, Coal-Mac Inc.
- David Conn, Coal-Mac Inc.
- Larry Birchfield, Coal-Mac Inc.
- Ricky Stewart, Alcoa
- Stanley Jarvi, MSHA
- Victor Hernandez, Southwestern Cement

This year's "Woman of the Year" is Judy Tate, who comes from MSHA's McAlester, Oklahoma Subdistrict Office. This prestigious award was presented by last year's "Man of the Year," Jon Montgomery.

This year's "Man of the Year" is Gary Moore, from the Pittsburg and Midway Coal Co. in Gallup, New Mexico. His award was presented by Donna Schorr, last year's "Woman of the Year."

This year the Western states presented the first Ival Van Horne Memorial Trophy to Ron Keaton, former Association President and District Manager in Morgantown, West Virginia.

Robert Glatter, Secretary-Treasurer

New York to sponsor job safety/health conference

The New York State Department of Labor is sponsoring a Resource Conference on September 8-9, 1993, at the Desmond Hotel on Albany-Shaker Road (off I-87, exit 4) in Albany, New York. The main purpose of this conference is to present materials, videos, and lectures on a variety of safety and health topics that affect all employees and employers. Such topics include:

- Hazard communication
- Bloodborne pathogen
- Lockout/Tagout
- Confined space
- Emergency response
- Back safety
- Personal protective equipment
- Hazardous waste
- Fire safety
- Mine safety
- Asbestos
- Lead

- Tuberculosis
- Construction safety

In addition, representatives from various safety and health programs will be on hand to answer questions on variance procedures; asbestos removal; blaster and crane licensing; health and safety consultation; boiler and pressure vessel safety; amusement and ski lift safety; window cleaning; and the training and education grant program. A registration fee of \$125 includes conference materials and handouts, two lunches, one dinner, and one breakfast on day two. Hotel accommodations may be made by calling the Desmond Hotel at (518) 452-0707.

More information and registration forms may be obtained by calling the Division of Safety and Health, Mine Safety Training Program at (518) 457-1638.

3rd annual Mineral Education Conference scheduled

How minerals relate to economics, the environment and everyday quality of life will be examined at the third annual Mineral Education Conference August 18-20 at California State University Sacramento (CSUS).

The conference is designed to respond to the need for earth science materials in California schools. It is cosponsored by the California Mineral Education Foundation, the CSUS Geology Department and the State Department of Conservation.

Teachers from kindergarten through high school levels will participate in discussions, information sessions, and activities focusing on minerals and mineral extraction.

Instructors will include representatives from the mineral industry and State Division of Mines and Geology and Sacramento area earth science educators.

Chaun Cadwell of Western World Mining is Foundation president.

Registration for the conference is \$25 and is limited to the first 125 teachers who apply. The fee includes a field trip to an operating mine, relevant materials, and some meals.

Additional information is available from Barbara Stewart, (209) 223-0658, or by writing the Foundation at 9647 Folsom Blvd., Suite 148, Sacramento CA 95827.

Reprinted from the May/June 1993 issue of California Mining.

Arizona to hold third mine health and safety workshop September 22-25

They said it couldn't be done but they were wrong! The Mining Section of the National Safety Council and the Arizona State Mine Inspector will hold another International Health and Safety workshop September 22-25, 1993, at Rio Rico Resort just north of Nogales, Arizona.

This will be our third workshop and early indications are that it will be our best one yet. We've learned a lot from our first two events and we have a good idea on what you, the participant, want to see and hear about. We've been in contact with safety and mining experts, and commitments to attend and give presentations are arriving daily.

The last day of the workshop is reserved for round table interaction among the participants on a face-to-face basis with the presenters. You may continue your stay through the entire week if desired at the special room rate of \$50 + tax for one or two people per day.

This Third Annual International Safety Workshop will include an agenda of many pertinent subjects taught by experienced educators and leading professionals from throughout the country, MSHA, the State Mine Inspector's Office, and industrial safety experts.

Some of the subjects included in this innovative program will be:

1. Cost containment in safety programs
2. Drugs and paraphernalia
3. Safety award programs—accident prevention
4. New techniques and mining methods
5. Mining—Past, Present and Future
6. Mine safety in Mexico
7. Developing training plans
8. Off the job safety program
9. Magma—A look at their safety program
10. Contractor Safety Program
11. Berms, Dumps, and Stockpiles
12. Accidents in the workplace
13. New products, new procedures
14. Safety equipment—What's new?

Each session will be delivered the 22nd and 23rd, enabling all in attendance to attend each class. The final day will consist of round table discussions on pertinent subjects. Bilingual presentations will be made when possible.

If you have any questions about what promises to be a sterling event, please feel free to contact Anna Lofton at my office in Phoenix (602) 542-5971.

Hablamos Español

Douglas K. Martin
Arizona State Mine Inspector

Academy to host instructors conference

The National Mine Instructors Conference takes place this year on October 13-14, 1993, at the National Mine Health and Safety Academy in Beckley, West Virginia. Planned topics include: Electrical Safety,

Substance Abuse Awareness, Job Safety Analysis, Hazard Communication, and others. Don't forget to mark the date on your calendar. For further information please contact Ron Minor at (304) 256-3229.

Southwestern regional mine rescue contest

The Southwestern Regional Mine Rescue Association sponsored the Mine Rescue Competition in Carlsbad, New Mexico on May 7 and 8, 1993. Nine Teams from Wyoming, New Mexico, Nevada and Missouri competed. Personnel from the Mine Safety and Health Administration, State of New Mexico and State of Arizona officiated the competition.

The New Mexico State Mine Inspectors Office coordinated and conducted the 2-man First Aid competition. The National Mine Service Company coordinated and conducted the Benchman competition.

The Competition results were:

1st Place.... WIPP Silver Team
 2nd Place .. Texasgulf Chemical Brown Team
 3rd Place ... WIPP Blue Team
 4th Place ... Mississippi Chemical ... Mississippi Team
 5th Place ... Rhone Poulenc White Team

Best novice team

Eddy Potash Eddy Team

Drager Benchman

1st Place WIPP Blue Team Richard West
 2nd Place WIPP Silver Team Joe Baca
 3rd Place Miss. Chemical Miss. Team Tim Briones
 4th Place IMC IMC Team Tony Carroll

First Aid Contest

1st Place WIPP Blue Team
 2nd Place ... Western-Ag Minerals Western-Ag Team
 3rd Place University Of Missouri UMR-Rolla Team

Best application of CPR

The REECO Team received a Certificate of Recognition for a near perfect CPR tape.

Southern regional mine rescue contest

The Southern Regional Mine Rescue Association sponsored the Mine Rescue Competition in Tyler, Texas, on May 21, 1993. Eleven Teams from Louisiana, Texas, New Mexico, Kentucky, and Missouri competed. Personnel from the Mine Safety and Health Administration, State of Missouri, and State of Texas officiated the competition.

The National Mine Service Company and Biomarine Company coordinated and conducted the Benchman competition.

The Competition results were:

1st Place AKZO Salt Inc. Team #1
 2nd Place Morton Salt Co. Gold Team
 3rd Place WIPP Blue Team
 4th Place Dravo Lime Co. Raiders Team
 5th Place AKZO Salt Inc. Salty Cajun Team

Best novice team

PB/MK PB/MK Team
 (Superconducting Super Collider)

Drager Benchman

1st Place ... Morton Salt .. Grand Saline Team . Walt Bryant
 2nd Place .. WIPP Blue Team Fred Miller
 3rd Place ... AKZO Salt ... Salty Cajun Albert Comeaux
 4th Place ... Morton Salt .. Blue Team Stoney Hotard
 5th Place ... AKZO Salt ... Team #1 Harold La Blanc

Biomarine Benchman

1st Place PB/MK Team James Grady

The last word...

"Remember when you find yourself arguing with a fool that he is doing the same thing."

"Every generation laughs at the old fashions but religiously follows the new."

"The best way to keep one's word is not to give it."

"It's all right letting yourself go as long as you can let yourself back."

"Smoking is one of the leading causes of statistics."

"Health nuts are going to feel stupid someday, lying in hospitals dying of nothing."

"Eat, drink, and be merry, for tomorrow we may diet."

"The most dangerous food is wedding cake."

"There are two kinds of books: those that no one reads and those that no one ought to read."

"A good man is always a beginner."

"Charm is getting the answer yes without asking a clear question."

"Getting caught is the mother of invention."

"All of us learn to write in the second grade. Most of us go on to greater things."

NOTICE: We welcome any materials that you submit to the Holmes Safety Association Bulletin. We cannot guarantee that they will be published, but if they are, we will list the contributor(s). Please let us know what you would like to see more of, or less of, in the Bulletin.

REMINDER: The District Council Safety Competition for 1993 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
Holmes Safety Association Bulletin
P.O. Box 4187
Falls Church, Virginia 22044-0187

Phone: (703) 235-1400

