BULLETIN

HOLMES SAFETY ASSOCIATION

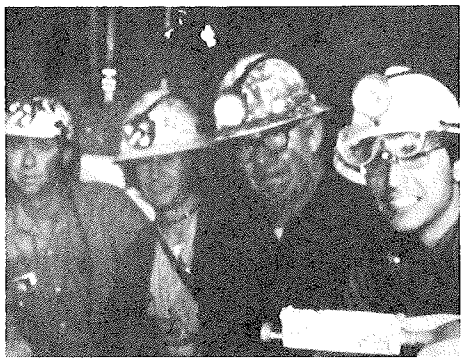
E PLURIBUS UNUM

SAFETY EFFICIENCY

MINERAL INDUSTRIES

May-June 1993

Contents



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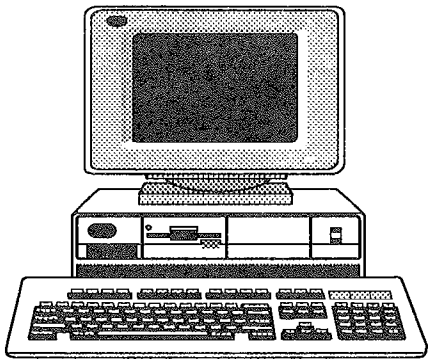

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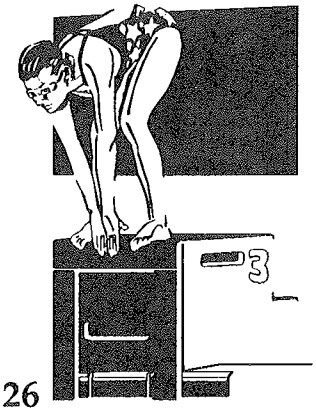

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Please note: The views and conclusions expressed in HSA Bulletin articles are those of the authors and should not be interpreted as representing official policy of the Mine Safety and Health Administration.

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
Campbell's Creek Surface Facilities	10344	Cedar Grove, WV
Nyac Mining Company	10345	Anchorage, AK
Noranda Minerals Corp.	10346	Libby, MT
Raven Mining Company	10347	Pikeville, KY
Burggraf Portable Plant #1	10348	Idaho Falls, ID
Burggraf Portable Plant #2	10349	Idaho Falls, ID
Highlands Stabilized Inc.	10350	Highlands, TX
Willeke Pit	10351	San Angelo, TX
Rightway Sand Company	10352	Crosby, TX
City Transfer Pit and Plant	10353	Emmett, ID
John Barten Company	10354	Columbus, TX
Valley Ready-Mix	10355	Idaho Falls, ID
Evan Jones Coal Mine	10356	Anchorage, AK
Twin Ports Testing, Inc.	10357	Superior, WI
Tanda Inc.	10358	Fort Smith, AR
Rock Producers, Inc.	10359	Alma, AR
Safety for Idaho	10360	Boise, ID
Future Mining Company	10361	Barbourville, KY
Marion County Road Department	10362	Pyatt, AR
ICI Explosives USA, Inc.	10363	Galena, IL
Mill Creek Sand and Gravel	10364	Quincy, IL
Butte Rock and Gravel	10365	Sutter, CA
Morehead Pit	10366	Sutter, CA
Pike Industries Crusher	10367	Websterville, VT
John Roderick	10368	Tracey, CA

An appeal to our readers...

As you may have noticed, our newest photographs are nearly ten years old! We are in desperate need of good black and white or color, single weight glossy photographs preferably 8" x 10"—although 5" x 7" will also work—*nothing smaller please.* If you can spare some prints we will be glad to print a credit line. If you can't spare the cost of making extra prints we would be happy to make our own set of prints from your negatives and return the negatives to you upon completion. These photos can be of **any** mining scene—underground or surface—closeups of miners or broad landscape shots. All we ask is that, if possible, you take a separate piece of paper and write a short description of what the photo depicts, then tape it to the back of the photo. *If you write directly on the back of the photo with a ball point pen you will cause the surface of the photo to distort proportionately. If you use a felt-tipped pen directly on the back of a photo, over a period of time the ink will seep into the photo eventually ruining the image.* If you can help us in our time of need we will forever be in your debt! Please send any photographic materials to:

Fred Bigio, Editor, The Holmes Safety Association Bulletin, MSHA, 4015 Wilson Blvd., Room 535A, Arlington, Virginia 22203-1984.

Roof Evaluation—Accident Prevention

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

REAP Report

Once again the mining industry has experienced an alarming and continuing upward trend in roof fall fatalities. An increase in the industry's awareness and efforts towards eliminating roof fall accidents are required to reverse the trend.

As in 1992, when the first six underground fatalities were caused by roof and rib failure, 1993 has begun with the same trend. Through April 1993, seven of the eight underground fatalities have been roof- and rib-related fatalities. The eighth fatality involved a roof bolting machine.

Following is a list of the eight underground fatalities for this year:

JANUARY 4 KENTUCKY Two miners were killed in an intersection approximately 60 feet outby the active pillar line. The victims were working as timbermen. A poor mining system was being used in that too much coal was being left causing an override.

JANUARY 11 TENNESSEE Two miners were killed in an intersection. A third miner was trapped in the operator's compartment of a scoop for hours before being removed. The pillar mining plan was not being followed.

FEBRUARY 24 WEST VIRGINIA A roof fall occurred while mining was taking place in the face of an entry, striking the methane sensor on the remote-controlled continuous mining machine. The foreman started to walk away from the machine when the roof fell, striking the machine boom and glancing off striking the victim.

MARCH 26 KENTUCKY The victim was installing roof bolts when the rib rolled over on him knocking his head against the roof bolting machine. It is not known if the victim sounded the rib before he began roof bolting.

APRIL 1 KENTUCKY The victim positioned himself approximately 30-40 inches inby permanent roof supports to mark the locations for roof bolts to be installed. The roof bolting machine was equipped with an Automated Temporary Roof System (ATRS) which was not set against the roof. The victim was working inby permanent roof supports.

MARCH 26 WEST VIRGINIA The victim was found with his head pinned between the top of the right-side drill-boom-head support arm and the bottom side of the canopy. Although this was not a roof or rib-type fatality, there were three similar fatalities in 1992.

Here's a suggestion, whenever you come in contact with someone, regardless of whether they are fellow workers, management, or visitors, instead of giving the customary "Hey buddy," or "Hi," or whatever, let's say "Inby is out, be careful."

We must stop roof and rib accidents and fatalities!

Should you have any questions, please contact Tony Turyn at (703) 235-1170.

Holmes Safety Association
Monthly safety topic

Fatal machinery accident

GENERAL INFORMATION: A 37-year-old superintendent and dozer operator, with more than 9 years of experience, was fatally injured when he backed the dozer he was operating over the edge of the sand and gravel pit wall. The falling dozer trapped him under the left track.

The operation was an open pit sand and gravel operation. The mine employed six persons, working one 10-hour shift per day, five days per week.

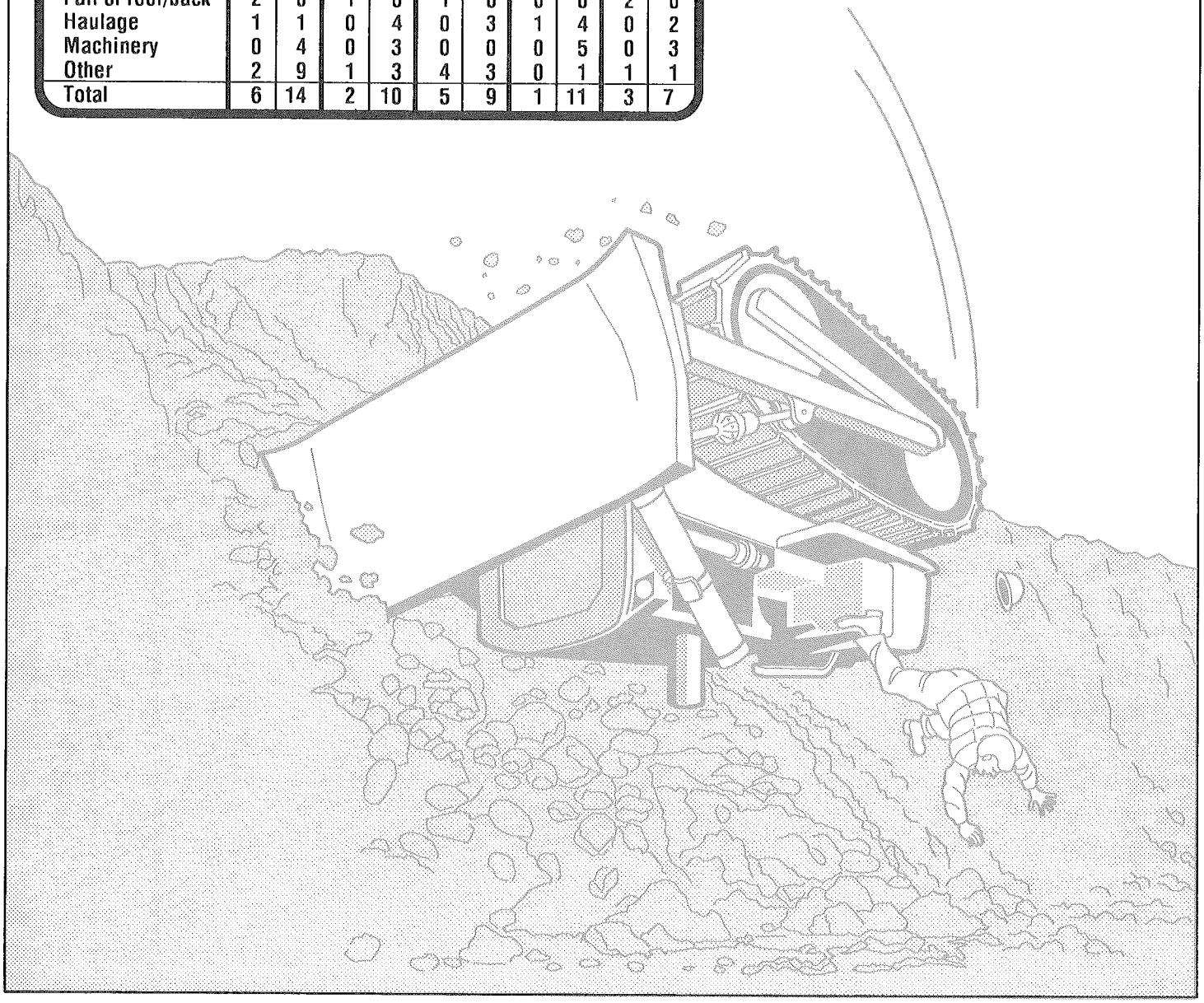
A Caterpillar D-8 dozer was used to remove overburden. A front-end loader was used to mine a 12-foot bench of sand and gravel. The material was processed through a crusher and screens for sizing. The finished product, sand and gravel, was used for concrete aggregate in two ready-mix concrete plants where most of the product was used.

DESCRIPTION OF ACCIDENT: The victim arrived for work at his regular starting time of 7:00 a.m. The victim and the two loader operators helped the plant operators service the crushing and screening plant and get it ready to start. The victim and the loader operator then took the service truck and drove over the pit road to the reclaim area where the dozer and the front-end loader were parked. After checking the oil and starting the equipment, the victim mounted the dozer and backed it at a slight angle toward the active pit wall. The loader operator was picking up a loader bucket of overburden and was facing the victim. He saw the victim backing up in preparation to push overburden. The victim continued backing toward the pit, without looking back or to the right, until the rear part of the right track was over the edge of the pit wall. This was beyond where he should have stopped and changed directions to start pushing material forward. He was looking away to his left until he felt the dozer start to lean. The victim turned his head toward the pit and noticed he had gone too far. He stood up and attempted to jump off on the left side. As he did so, he may have bumped the drive clutch with his knee. As the dozer started to slide and turn over, the victim was thrown out, and the dozer rolled for 3/4 of a turn pinning the victim under the left track when the dozer hit the bottom at the toe of the pit wall.

The loader operator saw the dozer turn over and he went to the scene of the accident. He noted that there was no movement from the victim. He went to the scale house and told the scale house attendant what had happened. She called 911 and the company president. She went to the accident scene and started digging with her hands to uncover the victim's head. She checked for a pulse and found none.

Metal and Nonmetal mine fatalities to date—thru 04-28-93

Type	1989		1990		1991		1992		1993	
	UG	S	UG	S	UG	S	UG	S	UG	S
Electrical	1	0	0	0	0	3	0	1	0	1
Fall of roof/back	2	0	1	0	1	0	0	0	2	0
Haulage	1	1	0	4	0	3	1	4	0	2
Machinery	0	4	0	3	0	0	0	5	0	3
Other	2	9	1	3	4	3	0	1	1	1
Total	6	14	2	10	5	9	1	11	3	7



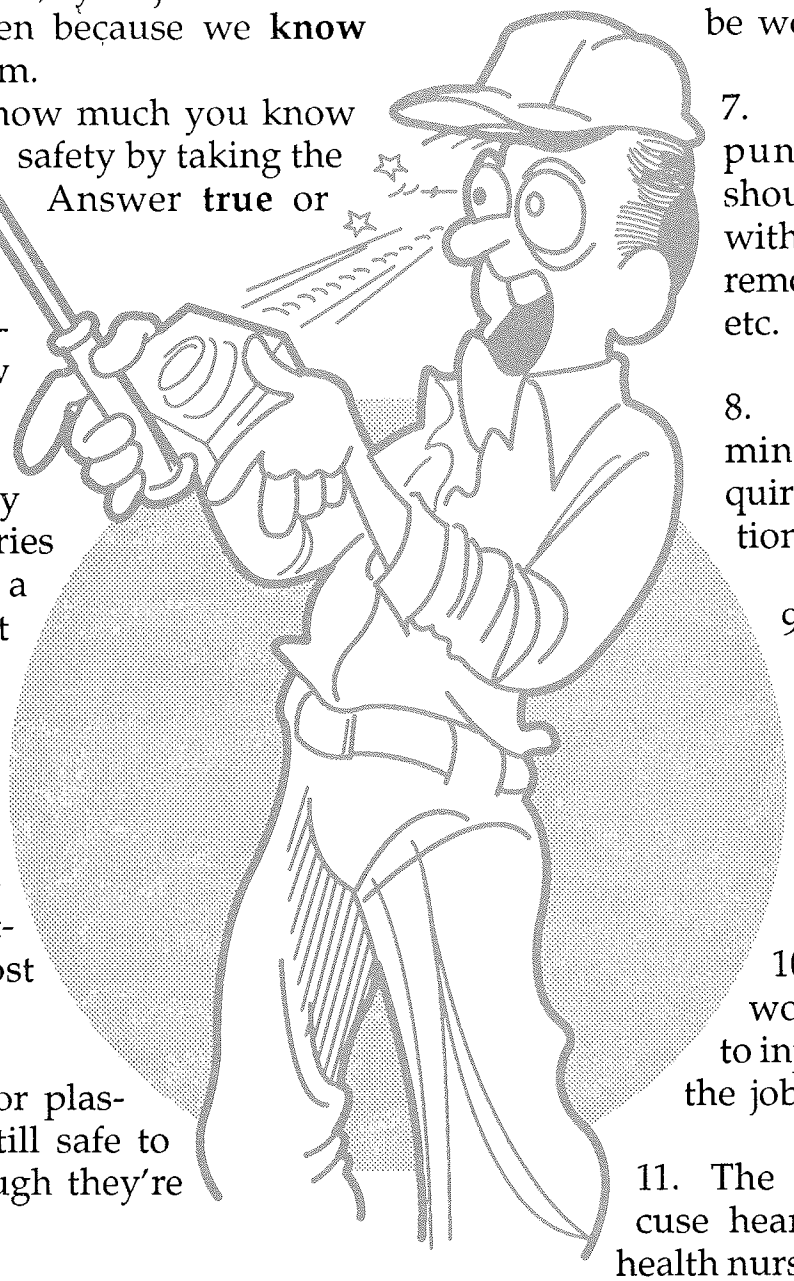
The rescue squad arrived a few minutes later. The coroner arrived at approximately 10:00 a.m., and pronounced the victim dead of multiple and severe crushing injuries at the scene.

CONCLUSIONS: The accident was caused by the dozer operator's inattention to where he was backing the dozer in relation to the pit wall. Witnesses observed the victim looking away from the pit wall as he was backing up until the dozer started to lean when he had gone too far.

Eye injuries are "boring"

According to one doctor who has treated many eye injuries, "An eye injury is not an accident. It is a boring, reproducible, repetitive, predictable, totally preventable event." In other words, eye injuries should almost never happen because we **know** how to prevent them.

Find out how much you know about eye safety by taking the following quiz. Answer **true** or **false** to the statements below and then check your answers to see how well you did.



1. Approximately 60% of eye injuries on the job are a result of not wearing any eye protection.

2. The best safety glasses are those that are the most adaptable to the most jobs.

3. Polycarbonate or plastic lenses are still safe to wear even though they're scratched.

4. A face shield should always be worn in combination with other eye protection equipment.

5. Guards, shields, and other engineering controls eliminate the need to wear eye protection equipment.

6. Contact lenses should not be worn on the job site.

7. Any material that punctures the eye should be flushed out with water rather than removed with tweezers, etc.

8. A black eye is a minor injury that requires no medical attention.

9. The eye's extreme sensitivity acts as a protective device, immediately alerting its owner of any injury.

10. The average worker is more likely to injure his/her eyes off the job than on.

11. The most common excuse heard by occupational health nurses treating eye injuries is "I only took my safety glasses off for just a second."

Answers can be found on page 30

Balance communication, protection to solve industrial noise problem

Select HPD's to provide maximum attenuation in frequency bands with the highest noise levels

By Kevin Michael, MSEE, Penn State University Department of Communication Disorders, State College, Pennsylvania

It is well-documented that noise levels found in some industrial work areas may be high enough to cause permanent deafness in susceptible individuals. Ideally, engineering control measures should be applied to the machinery and to the surroundings, and sound-reducing barriers should be constructed to minimize the potential hazard. In many cases, however, noise cannot be reduced to acceptable levels, and personal hearing protective devices must be worn.

Before choosing hearing protectors, it is important to consider many things. Hearing protectors may limit communication, and loss of communication can be more dangerous than the noise exposures. Workers need to hear warnings from other employees, warning alarms and sounds that indicate improper machine operating conditions. The tradeoff between communication and protection can be life-threatening if the wrong choices are made.

Total cost is another consideration, and this includes the initial cost of the protector, its replacement cost over a given time and the cost of evaluating a noise source to allow proper protector selection.

Choosing to use a single number measure of the noise source, such as the A-weighted sound pressure level, or of the protector attenuation value, such as the Environmental Protection Agency Noise Reduction Rating, may not prove cost-effective in the long term. These measures do not provide any specific spectral information; therefore, they do not allow matching the attenuation characteristics of a protector to the frequency spectrum of a noise source.

Improper protector selection may reduce communication on the job, increasing the risk of injury. Employees may not recognize improper machine operating conditions that can damage equipment or injure a worker, both causing significant costs to industry.

The effects on man of long-term noise exposure have been studied for many years. Typically, this kind of exposure results in a high-frequency, sensorineural hearing loss. Communication for persons with a high-frequency impairment is difficult because of the frequency characteristics of speech. Most of the power of speech is in the vowels, which are low-frequency sounds, and most of the intelligibility of speech is carried by the high-frequency consonants. A noise-induced hearing loss makes consonants difficult to hear, and vowel sounds may mask what consonant sounds are heard. Communication thus becomes difficult, especially in areas where background noise or reverberation exists;

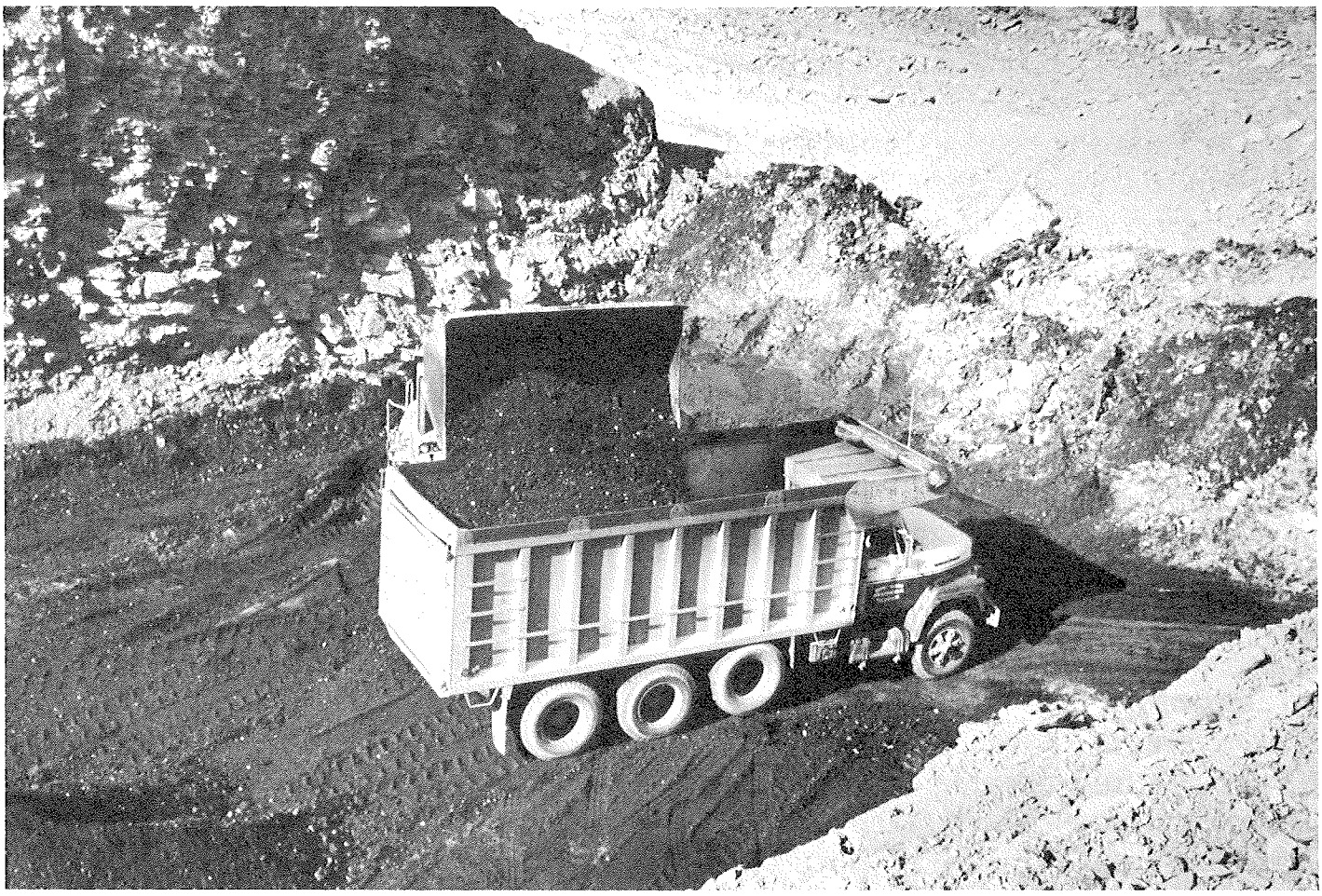
background noise contains primarily low-frequency sounds, which a person with a noise-induced hearing loss hears reasonably well.

For individuals with normal hearing, hearing protectors tend to inhibit the ability to communicate in noise conditions up to about 90 to 95 dBA. Above this level, however, protectors often improve communication by preventing the auditory system from distorting. For individuals with a noise-induced loss (a high-frequency loss), hearing protectors almost always inhibit communication. The protector decreases the information-carrying (high-frequency)portion of the speech signal where the impaired individual already has a deficit, to a point where the impaired person may have great difficulty communicating.

Types of protection

Two types of hearing protectors are prevalent in industry today, the muff-type and the insert-type. Several variations of each type exist. Three insert-type protectors (also called ear plugs) are in wide use: the molded, malleable and individually-molded models.

Insert-Type protectors. For the best performance and for comfort, molded insert-type protectors must be flexible and nontoxic, and they must be washable if intended for long-term use. This type of protector comes in a variety of sizes to fit different sizes and shapes of ear canals,



and proper fit is essential to achieve maximum attenuation of sound. Molded plugs come in a variety of styles, with single, double or triple flanges which act as an acoustic seal against the wall of the canal.

Molded protectors. The size, shape and bend of the canal are critical in the selection of molded ear plugs. For example, a round, straight and relatively firm plug fits best in a round, straight canal; a short, relatively soft plug performs better in a slit-shaped, or bending canal.

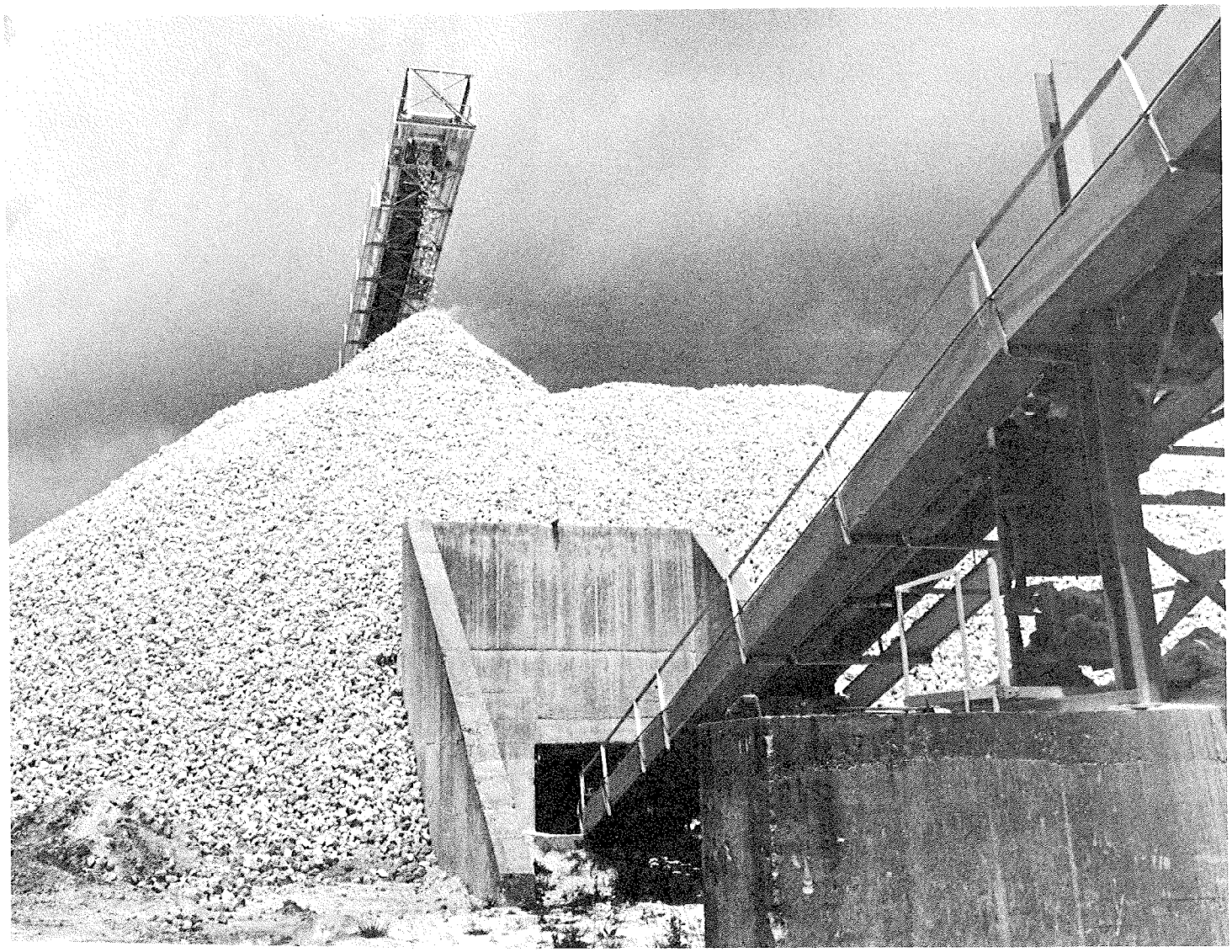
Malleable protectors. Malleable insert-type protectors are cylindrical or conical pieces of imperforate foam material. The material must be malleable enough to be shaped with the fingers so that it can be inserted into the ear canal. The plug must hold its shape while being inserted, and then it must expand to occlude the canal. Malleable insert-type protectors usually come in a single size that is meant to fit the entire population. Some models of malleable plugs are classified as being disposable, and thus are used only a few times before being discarded.

Individually-molded protectors. Individually-molded insert-type protectors are fitted to each user by making an impression of each ear, filling the concha and

extending into the ear canal. In some cases, the original impression is used as the protector, and in other cases the impression is used as a model from which the protector is made. Individually-molded protectors are generally more expensive than the other insert-types because of the custom-fitting process. Their effectiveness depends on the techniques used in taking the initial mold and on the final preparation of the protector.

Muff-Type protectors. The muff-type protector is often chosen for its universal fit, cleanliness and high attenuation characteristics. Muff-type protectors seal to the head with a foam or liquid-filled cushion. The cup of the protector is usually made of hard plastic, and the inside of the cup contains an open-cell foam material to absorb sound and dampen movement. The head band connecting the ear cups is usually made of plastic or metal. A higher inward force of the cups on the head increases attenuation but reduces comfort.

Communication headsets are often muff-type protectors that include an earphone inside each ear cup. The low-frequency attenuation of a muff-type protector is generally proportional to the volume enclosed inside the cup. The earphones in



communication headsets reduce this effective volume, reducing low-frequency attenuation.

Protector combinations. For extremely high noise exposures, a combination of muff-type and plug-type protectors may be used. The maximum gain in attenuation achieved by wearing a second protector simultaneously is about 6 dB; this occurs when the attenuation characteristics of the plug and muff are matched exactly. If the plug and muff are not matched in performance, the attenuation of the combination is only slightly higher than that of the protector with the greatest attenuation.

Selection criteria

There is not a single "best" hearing protector for all industrial conditions. The frequency spectrum of the noise source and communication requirements should be considered when choosing a hearing protector. Many less obvious factors are also important in this selection: the environment, the activity and the physical confinement of the worker, and even individual worker preference. Careful consideration of these factors results in more effective use of hearing protectors.

Muff-type protectors are easy to fit, and their use is easy to monitor from a distance. Many workers prefer them in moderate temperatures and when work activities are not vigorous. However, muff-type protectors can be very uncomfortable in hot and humid conditions, and the use of muffs can actually be dangerous in confined spaces, where they may come in contact with moving machine parts. Muffs are also unattractive to a worker who may have to move vigorously on the job, because of discomfort from the heat and because they are more likely to fall off.

Insert-type protectors are preferred for hot work areas, vigorous activities and confined spaces. But they may be unacceptable to individuals with odd-shaped or tender ear canals. Plugs may be difficult to insert for workers with poor finger dexterity, or for workers who must wear gloves. If a protector is uncomfortable, awkward or dangerous for the employee, it will probably be worn ineffectively or not at all.

Recent technological advances have allowed the introduction of new muff-type protectors with electronic components. The automatic volume control protector includes microphones and audio-limiting circuitry. The microphone/amplifier system transmits outside sound to the wearer at a level that does not cause noise-induced auditory damage.

Another active muff type, the noise cancellation protector, operates on the premise that a microphone samples the noise environment, and then internal circuitry generates the same signal 180 degrees out of phase inside the ear cup. This out-of phase signal cancels out the undesirable noise. Noise-canceling muffs are relatively new and not in widespread use.

Performance and limitations. The attenuation offered by a hearing protector depends on its design and construction, the wearer's physiological characteristics and the quality of the fit. Considering these, sound may reach the inner ear (where damage usually occurs) of an individual wearing a protector in four ways.

First, sound vibrates the bones and tissue of the skull, and the cranial structure transmits these vibrations to the inner ear. The human skull attenuates airborne sound

by approximately 50 dB before it reaches the sensitive nerves of the inner ear.

The *second* way for sound to reach the ear is through protector vibration. The noise vibrates the muff or plug, generating acoustic energy (noise) inside the protector.

Third, if any leaks exist in the plug or muff material, noise gets through the leak and reaches the ear.

Fourth, noise gets through any leaks that exist around the protector.

The second, third, and fourth pathways can be minimized if the protector is constructed of appropriate material and if the wearer maintains a good fit. The first pathway for sound, vibration of the skull, is a characteristic of the individual, and cannot be changed.

Industrial applications

Applying protector performance to an industrial situation reveals how a worker can be protected from hazardous noise. The "short method" of estimating noise exposure under a hearing protector is based on the use of an assumed spectrum of noise and a single number rating of the hearing protector.

To rank the performance of hearing protectors, the Noise Reduction Rating (NRR), an index describing attenuation performance, was established by the EPA as

part of their hearing protector labeling regulation. The EPA mandates this evaluation of all hearing protectors.

Because the NRR is a single number estimate, it does not provide any specific spectral attenuation information. The calculation of the NRR replaces nine different pairs of laboratory-derived mean and standard deviation values with a single number. Also, the calculation of the NRR is based on exposure to a flat spectrum of noise and assumes that the wearer of the protector is exposed to a noise that has equal sound pressure levels in all octavebands. This may mislead the user of a muff-type protector by ± 8 dB depending on the spectrum of the noise source.

However, single number ratings of noise exposure or hearing protector performance are useful in situations where communication is not important, or in cases where noise analyses have not yet been completed. But if consideration is to be given to communication, octaveband data at least is required for describing the attenuation of the protector and the spectrum of the noise source.

Specific data on octaveband protector

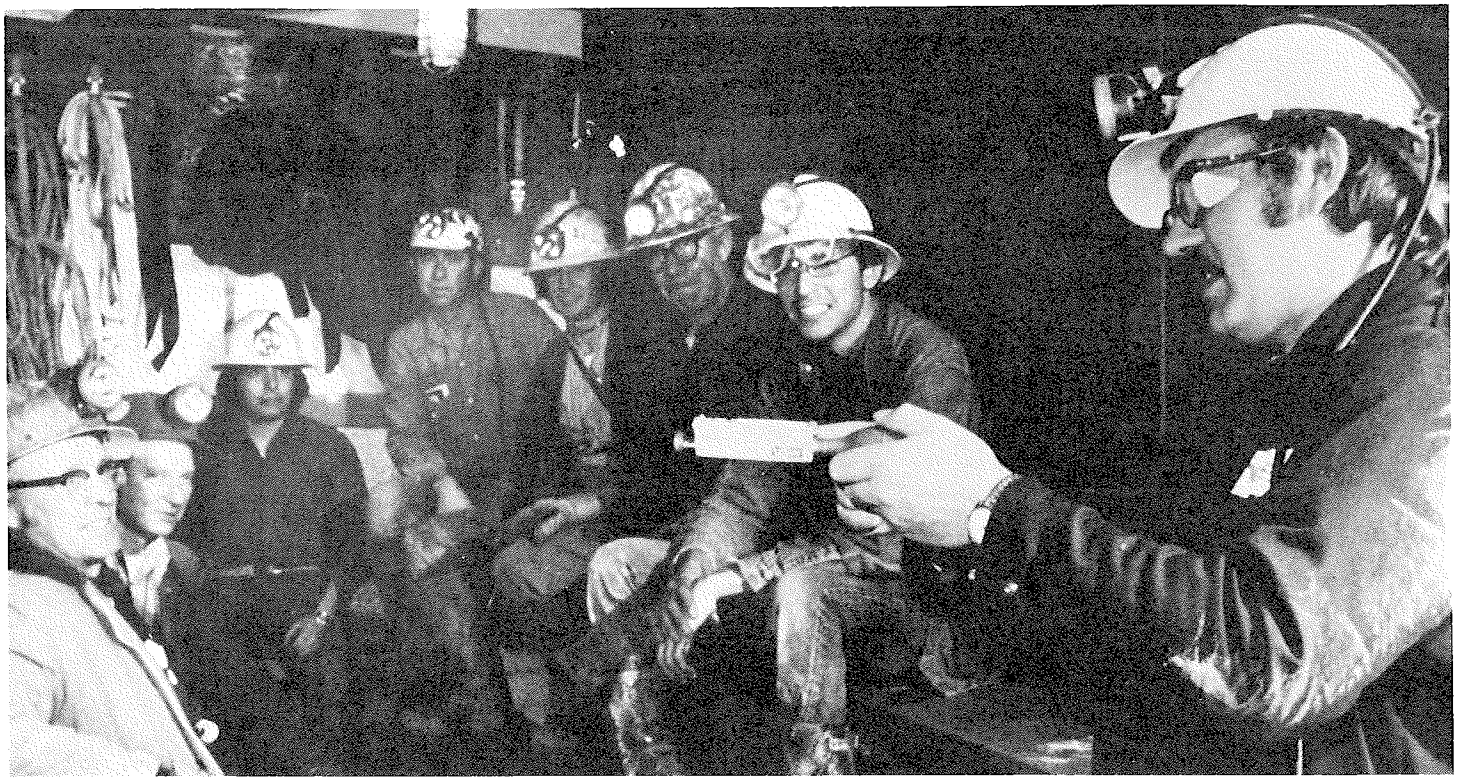
attenuation should be available from hearing protector manufacturers or distributors. Adequate safety factors must be applied to the laboratory-derived data to account for other than the best fitting and use of the protector. That is, the laboratory data is to be considered as "best fit" data, and less attenuation may be presumed in industrial applications. The magnitude of the safety factor depends on the effectiveness of the workplace hearing conservation program.

Main objective

It is important to remember that the main objective of any hearing conservation program should be to prevent noise-induced hearing impairment, rather than simply to obey OSHA regulations. The noise exposure limits set are a compromise between the economic impact of hearing conservation in industry and the percentage of the population to be protected by these programs. Because the workers vary widely in susceptibility to noise-induced hearing impairment, efforts should be made to identify individuals susceptible to noise-induced hearing loss, and to keep them away from high-noise areas. Otherwise, the hearing conservation program must be based on the most susceptible individuals.

The effective use of hearing protectors in the workplace requires cooperation through all levels of the corporate organization. A choice of protective devices must be given to the person responsible for hearing conservation so that protectors can be distributed to those in high-noise areas. Each noise problem should be analyzed, and the information used to choose the correct protector. Finally, the workers must be educated in the harmful effects of noise so they understand the benefit of proper hearing protection.

Reprinted from the November 1989 issue of ***Occupational Health & Safety*** *magazine.*



Miner dies from fall of loader boom

(this accident did NOT happen—but could)

By James Angel, mechanical engineer, Technical Support, MSHA

"A maintenance foreman with 18 years mining experience, crawled under the boom of a loading machine to replace a leaking hydraulic fitting on the boom's lift cylinder.

According to witnesses, as soon as the foreman loosened the fitting, the cribbing used to hold up the boom gave way. The maintenance foreman was crushed when the boom fell. Fellow miners stated that the foreman conscientiously followed good safety practices and noted that the cribbing appeared secure."

In 1981, MSHA, working in cooperation with industry, undertook an effort that has saved an estimated one miner a year from this type of accident. These lives were saved by a small modification to the hydraulic systems which support booms and cutting heads.

An MSHA study found that on average, over a twelve year period prior to 1981, one fatality a year occurred due to a failure to properly block booms or cutting heads during maintenance. The need for an additional machine performance control became apparent.

MSHA and industry determined that the most effective control involved the inexpensive addition of load locking valves to boom and cutting head lift cylinders. The generic term "load locking valve" describes one of several hydraulic valve types. Normally, the boom's weight is supported by pressure in hydraulic hoses. The load locking valve prevents the free fall of the boom or cutting head in the event a hydraulic hose becomes disconnected. These valves will support the machine's boom or cutting head even if the required blocking gives way. Load locking valves were required on all hydraulic cylinders used on cutting heads and conveyor booms on loading machines and continuous miners shipped to mines after January 1, 1981.

At the ten-year anniversary of the establishment of the load locking valve requirement, MSHA conducted a review of the fatalities from the fall of booms and cutting heads to determine the effectiveness of the program. This review showed that in the past decade, three deaths can be attributed to the free fall of improperly blocked booms or cutting heads. None of the machines involved in these accidents were equipped with load locking valves. These machines were shipped to mines before January 1, 1981, the date the load locking valve program went into effect.

Two points are clear from this review of the load locking valve program. First, the program eliminated deaths from accidental falls of booms and cutting heads by equipping machines with load locking valves. Second, continuous miners and loading machines shipped to mines before January 1, 1981, without load locking valves should be equipped with them.

Certainly the death rate from falling booms and cutting heads would have continued at the rate of one per year without the installation of load locking valves. Instead, three fatalities occurred and these involved machines not equipped with load

locking valves.

It is recommended that any remaining loading machines or continuous miners which do not have load locking valves installed be retrofitted with a load locking valve system installed, tested, and determined to meet MSHA load locking valve criteria.

Finally, this program is an example of what MSHA and industry can achieve:

Identify hazards and work together to eliminate fatalities.

Programs developed through MSHA and industry cooperation are the quickest means to incorporate a desired safety feature on equipment and are the most effective in the long run.

By working together, MSHA and Industry can achieve the goal of zero mining deaths by the year 2000.

For More information contact James Angel at the Approval and Certification Center, P.O. Box 251, Triadelphia, WV 26059, or telephone (304) 547-0400, ext. 413.

Underground haulage equipment

Since the introduction of mechanized mining and the subsequent increase in production, the use of mobile haulage equipment has rapidly increased in the mining industry. This has magnified the exposure of employees to haulage-related hazards and has contributed to a large number of haulage accidents. Several accidents involving collisions of haulage equipment have occurred recently in Virginia.

The following are some safety precautions to observe:

- All mobile equipment should be equipped with an audible warning device that will be sounded when approaching curves, curtains, or other places where miners are likely to be.

- The lights on the mobile equipment should operate in the direction of travel.

- Mobile haulage equipment should be operated at a safe speed and under full control at all times.

- Equipment operators should keep all body parts within the confines of the operator's compartment.

- All haulage equipment shall be parked away from curtains, corners, and active haulways.

- All shuttle car operators should examine their haulways for irregularities and debris and other conditions that make it difficult to control the shuttle car.

- Clear communication should be established between haulage equipment operators concerning haulage routes and change out procedures.

Reprinted from the March 1993 issue of Virginia's ***Coal Operator Assistance Bulletin***

Staying alert to changing mine conditions

Although we are through the "Winter Alert" time period, which lasts through the end of March, we have been experiencing weather conditions that have ranged from one extreme to the other. Such dramatic changes in atmospheric pressure, humidity, and temperature can quickly result in equally dramatic changes in the conditions of both underground and surface mining operations. As always, it is important to carefully monitor mine conditions, communicate observed changes to your employees from shift to shift, and immediately take whatever action is necessary to ensure safe mining conditions are maintained. Please review the following precautionary reminders with your employees.

Control methane

Increase checks for methane, especially during the passage of major cold fronts (drops in barometric pressure). Following the Southmountain mine explosion, there has been much discussion of the Mine Safety Laws of Virginia's classification of underground coal mines as nongassy or gassy. Under the existing requirements, mines are considered nongassy unless methane in excess of one-quarter of one percent is detected 12 inches from the roof, rib, or working face of the mine, or where there has been a methane ignition.

These conditions are monitored closely by inspectors during each regular, spot, or special inspection, and methane readings above these levels discovered in the course of mining must he reported in mining logs. Mine operators and owners must not assume that a nongassy classification means methane levels are not subject to sudden and unpredictable change. Again, ensure regular checks for methane and that methane monitors are maintained in operating condition.

A bill has been passed by the Virginia General Assembly to amend the requirements of the law to consider *all* underground mines as potentially gassy.

Maintain proper ventilation

Make regular ventilation checks, especially near the working face and in pillar recovery areas where falls of roof may interrupt adequate fresh air flow.

Control coal dust

Prevent the accumulation of coal dust and apply rock dust on a regular basis.

Roof control

Continually evaluate and test roof and rib conditions.

Beware of freezing conditions

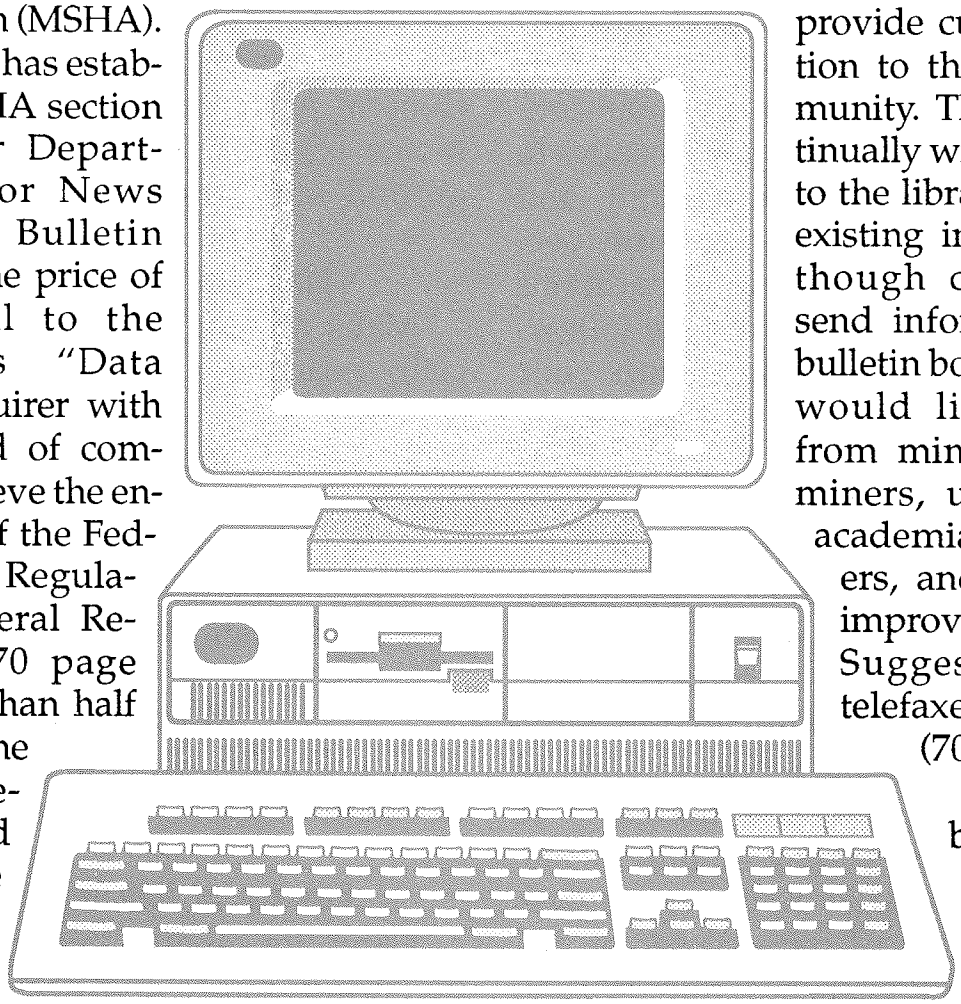
Carefully monitor highwall conditions on surface mines and deep mine face up areas. Watch for the accumulation of ice on the steps of heavy equipment and on all railings and elevated walkways.

Reprinted from the March 1993 issue of Virginia's ***Coal Operator Assistance Bulletin***

MSHA announces new computer based communications system

The mining community now can gain quick access to current regulations, program information bulletins, policy memos and other data by telephoning a computer based electronic bulletin board, announced the Mine Safety and Health Administration (MSHA).

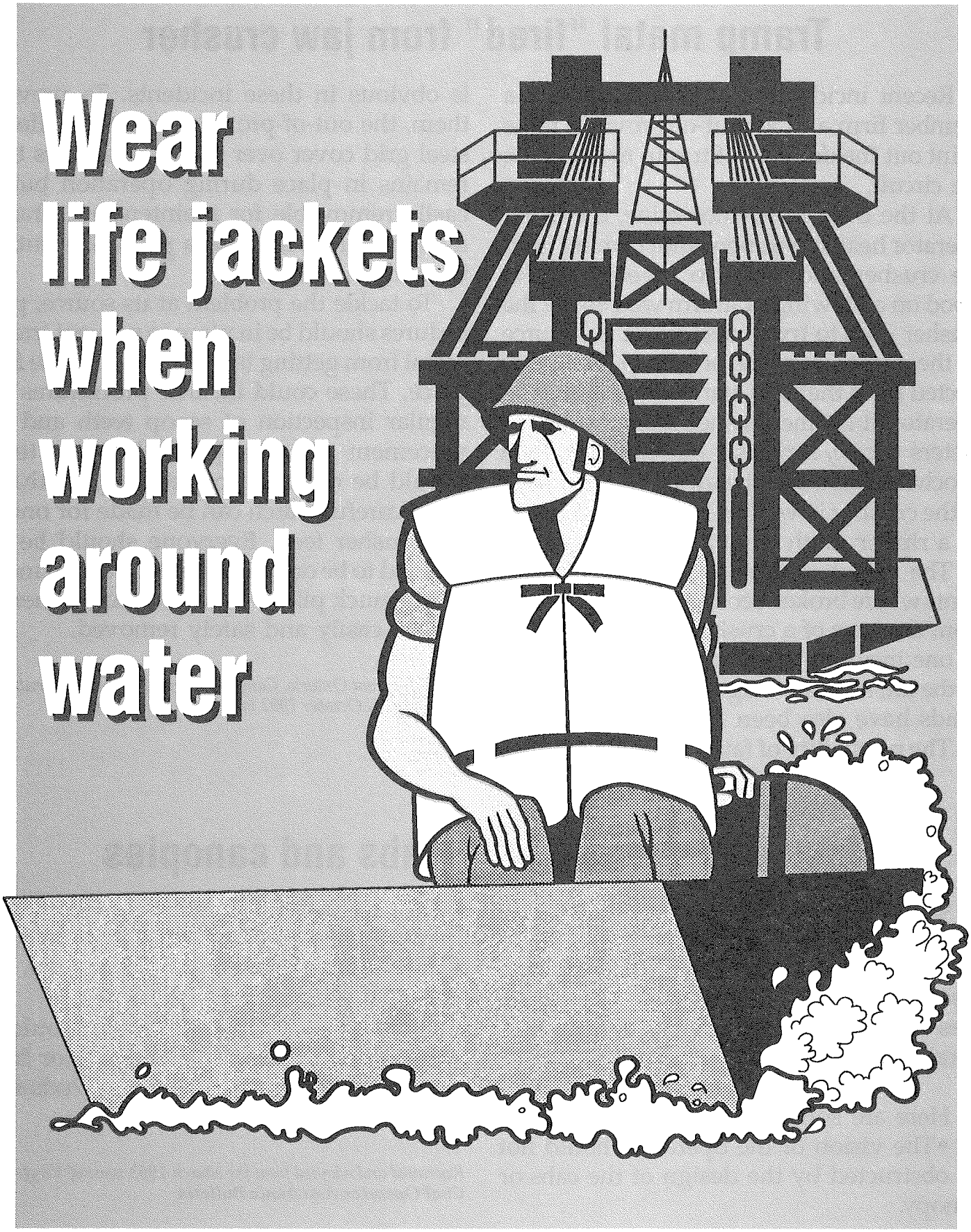
The agency has established an MSHA section on the Labor Department's "Labor News Electronic Bulletin Board." For the price of a phone call to the department's "Data Line," an inquirer with the right kind of computer can retrieve the entire contents of the Federal Code of Regulations on Mineral Resources, a 770 page book, in less than half an hour. Or the user could request updated sections of the regulations and retrieve them in minutes.



Callers must have an office or home computer and a connecting device called a "modem" to access information. Files then can be requested from MSHA libraries on specific subjects such as "30 CFR testing and approval regulations," "Longwall shearer access," "Berms or guards on elevated roadways," "Mine Safety and Health Act of 1977" or fact sheets on major MSHA program activities.

MSHA's objective is to provide current information to the mining community. The agency continually will add new files to the library and update existing information. Although callers cannot send information to the bulletin board, the agency would like comments from mining operators, miners, union officials, academia, manufacturers, and others about improving the system. Suggestions can be telefaxed to MSHA on (703) 235-4323.

The bulletin board data line telephone number is **(202) 219-4784.** To learn more about technical aspects of the Labor News Electronic Bulletin Board, phone Don Berry, Department of Labor, (202) 219-7343. For information on MSHA's bulletin board, phone Rodney Brown of the Office of Information and Public Affairs, at (703) 235-1452.


Wear
life jackets
when
working
around
water

Tramp metal "fired" from jaw crusher

Recent incidents at the operations of a member firm and an out-of-province mine point out the dangers of tramp metal in the ore circuit.

At the out-of-province mine, a crusher operator heard a strange noise coming from the crusher and went to investigate. He stood on a viewing platform well above the crusher jaws to try to determine the source of the noise. A piece of tramp steel was ejected from the jaws, narrowly missing the operator. It hit the crusher control cabin 15 meters above, seriously damaging it, then ricocheted off a steel beam and landed back in the crusher jaws. The piece turned out to be a ripper tooth from a bulldozer.

The member firm experienced several dents where broken scoop teeth were ejected from the jaws of a crusher with great force. In one incident, a scoop tooth shot 30 feet in the air, striking a light fixture. Hammerheads have also been found in the muck.

The possibility of fatal or serious injuries is obvious in these incidents. To prevent them, the out-of-province mine installed a steel grid cover over the crusher jaws that remains in place during operation but is easily removable for maintenance. Tramp metal magnets are also a possible solution in many situations.

To tackle the problem at its source, procedures should be in place to prevent tramp metal from getting into the muck in the first place. These could include procedures for regular inspection of scoop teeth and replacement of worn parts. Missing teeth should be reported immediately so that a more careful watch can be made for one in the crusher feed. Everyone should be reminded to be on the lookout for tramp metal in the muck pile or other locations where it can be easily and safely removed.

Reprinted from Ontario, Canada's Mines Accident Prevention Association's October 1992 issue of ***Incident Report****.*

Installation and use of cabs and canopies

Cabs and canopies were designed to protect equipment operators from falls of roof or ribs. Sometimes hazards have been created by the installation of cabs and canopies by limiting the visibility and maneuverability of the equipment operators.

Here are some precautions to observe:

- The vision of the operator should not be obstructed by the design of the cabs or canopy.
- The operator should be completely within the confines of the operator's compartment and underneath the canopy.
- The operator's compartment should be wide enough to protect the operator from side obstructions such as ribs, overhangs, timbers, etc.

Reprinted and adapted from the March 1993 issue of Virginia's ***Coal Operator Assistance Bulletin***

This is a true story...

"The ambulance wants to know where to take your husband"

My office phone rang at about 4:30 p.m.

"Hello? Is this Mrs. Jones?

"Your husband's been in a car crash. I rear-ended his car with my truck. He looks pretty bad. The ambulance wants to know where to take him."

Drawing a deep breath in disbelief, I told the guy on the phone that my husband should be taken to the hospital across from my office. Then I called the emergency room and told them to call me when he was brought in.

When I rushed into the emergency room (having no idea what I'd find there), I saw my husband on a stretcher, strapped to a backboard from forehead to ankles.

He'd been wearing his seat belt (thank God) so there was no bleeding or bandages; but there *was* some concern about spinal injury.

To make a long story short, he *walked* out of the emergency room about three hours later—gingerly, but he was walking.

In that time span, there had been exams, X-rays, the inevitable emergency room waiting and worrying and, of course, a mountain of paperwork from the hospital and police.

Diagnosis: "cervical strain," i.e., whiplash.

Why I'm telling you this story

•Seconds before *another* car accident several years ago, my husband had a sudden urge to buckle his seat belt. Immediately afterward he was broadsided by a truck going the wrong way on a one-way street.

He says he "just had a feeling," and he's never forgotten to buckle his seat belt since.

The officer told him the seat belt had saved his life.

• This *last* accident occurred on a rainy afternoon on a busy highway outside a tunnel. Five cars were involved.

The car in front of my husband and his car were stopped in traffic—and suddenly behind them there was this chain-reaction pileup.

His seat belt, he says, was the *ONLY* thing that kept him from going through the windshield.

•My husband chose this particular roadway because he thought the freeway was "unsafe."

Which only goes to prove that *all* roads can be unsafe.

•Before setting out, my husband had filled the entire trunk of his car with rubber dish trays which are used in his work.

"Good thing," he says, "because when the cars behind me hit me, they were virtually hitting a 'rubber car.'"

The lessons being...

1. Before you get involved in a five-car pileup, be sure to fill the entire trunk of your car with rubber dish trays.

2. **ALWAYS** wear your seat belt.

Wearing your seat belt *could* mean the difference between walking out of the emergency room, or being wheeled to another place—a place I'm glad I don't have to talk about.

Reprinted from the March 1993 issue of TRW's ChoicePlus Program's ***Lifelines*** *newsletter.*

Holmes Safety Association Monthly Safety topic

Fatal other accident

GENERAL INFORMATION: A 53-year-old car dropper with 26 years of mining experience, 5 years and 3 months at this classification, was fatally injured while trying to close a hopper car door. The operation was a preparation plant and received coal from 13 deep mines contracted from the nearby area. These mines produce coal from the Pocahontas 6, 10, and 11 seams. The plant processes about 3,500 tons of clean coal on two production shifts, five and six days a week, and employs 25 persons. All coal is transported to the plant by coal trucks. The coal is cleaned, sized, and blended, then dried with an ENI thermal dryer system. The coal is then loaded into railroad cars and shipped to the purchaser.

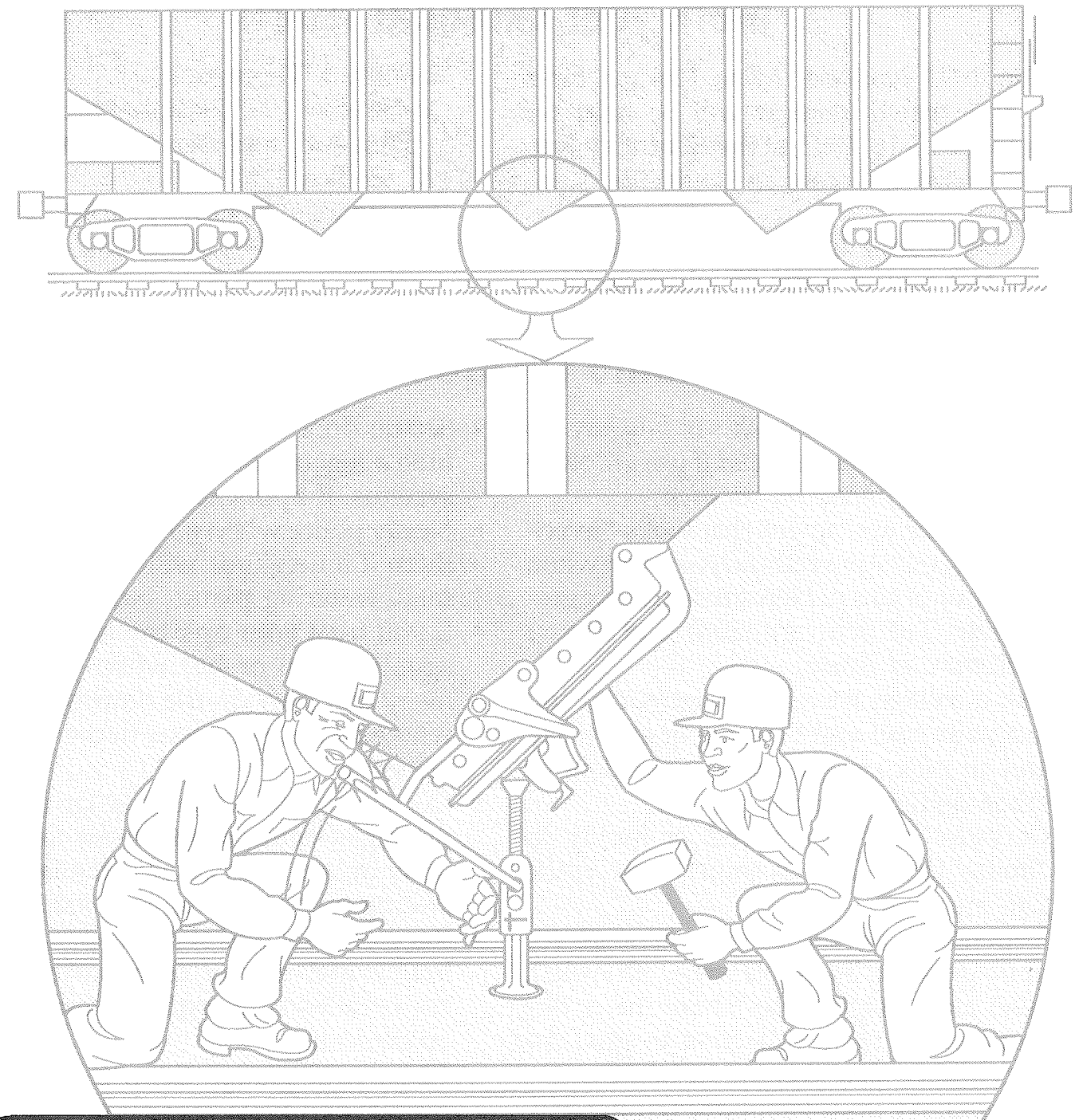
DESCRIPTION OF ACCIDENT: The preparation plant foreman conducted his daily on-shift examination, including the loadout railroad tracks located above the preparation plant, around 7:30 a.m.

The victim, a car trimmer, started his shift without incident. His duties consisted of closing railroad hopper car doors and dropping railroad cars o nto the loadout track to the preparation plant. About 9:50 a.m., the victim attempted to close the middle hopper car door, but the door would not close. He tried several times without success. He called an electrician to assist him in closing the middle hopper car door and told him to bring a lifting jack and a bar.

The victim got a sledge hammer as the electrician arrived with a 5-ton Simplex lifting jack and bar. At 10:05 a.m., the victim and the electrician tried again to close the hopper car door. The victim instructed the electrician to hit the latch assembly with the sledge hammer while he attempted to raise the door so the second notch would latch. The victim raised the door to the second notch while the electrician secured the latch assembly in place. While the victim was applying downward pressure on the jack bar, the pressure kicked the bar back, and it struck the victim on the left jaw.

The electrician did not see the bar strike the victim, but he did see the victim's arms raise toward his head, and he saw him fall over unconscious. The electrician immediately began to administer first aid and, finding no response, summoned help. The plant foreman stated that he checked the victim and did not find a pulse. An ambulance was called and the victim was transported to the hospital where he was pronounced dead at 10:45 a.m.

CONCLUSION: The accident and resultant fatality occurred because mine management failed to provide the proper tools to perform the task of closing the hopper car doors. The victim also failed to properly evaluate the task.



Coal mine fatalities to date—thru 04-28-93

Type	1989		1990		1991		1992		1993	
	UG	S	UG	S	UG	S	UG	S	UG	S
Roof fall	8	0	9	0	10	0	6	0	7	0
Haulage	0	1	4	2	2	1	1	1	0	4
Machinery	1	1	4	1	0	1	3	0	1	0
Electrical	1	1	2	1	0	0	0	1	2	2
Other	0	3	0	7	2	5	0	7	0	3
Total	10	6	19	11	14	7	10	9	10	9

Mark your calendar NOW!

The 1993 National Mine Rescue, First Aid, and Bench Contest will be held on September 13-16, 1993, at the Kentucky Fair and Exposition Center in Louisville, Kentucky.

If you would like further information please feel free to write or telephone:

Timothy J. Thompson,
Co-Director 1993 National Mine Rescue,
First Aid, and Bench Contest
HC 66, Box 1762
Barbourville, Kentucky 40906
Telephone: (606) 546-5123.

Home secure home

As vacation time approaches in July here are a few good tips to bear in mind if you are going to be away from home on vacation.

A home or apartment that looks "lived-in" can discourage a burglary—-even when you are out of town. Here are some suggestions from Ted Schwarz, author of *Protect Your Home and Family:*

- Ask a trusted friend or neighbor to collect your mail and newspaper every day and to pick up advertising circulars or other delivered items.
- Consider asking a friend or family to "house sit"—-live in your home while you are gone.
- Depending on the season, arrange for your grass to be cut or snow shoveled. Also, ask a neighbor to "share" his or her garbage for trash collection to give the appearance that you are at home.
- Do not have your telephone temporarily disconnected. Use an answering machine, arrange for an answering service, or use the "call forwarding" feature offered by telephone companies.
- Set timers around your home to turn lights, radios (tuned to an "all-news" station) and televisions on and off in a pattern that resembles your normal lifestyle.
- Secure door and window locks; do not hide a key on the property. Set all alarm systems, if applicable.
- Notify police when you will be gone. Tell them if a neighbor will be taking in the mail, watering plants, etc.
- If you trust your apartment house manager, tell him or her when you will be away and provide the names of anyone who may be using your home while you are gone.
- Do not switch off heating or air-conditioning systems; just turn the thermostat up or down, respectively (the lack of operating noise is a clue to your absence).
- Keep curtains and shades open or closed in a normal manner; do not arrange them the same way throughout your house or apartment.
- Close your garage door. If you have a carport and your car will be gone, ask a neighbor to park there.
- If possible, remove all valuables from your home; store coin collections, jewelry, private papers, extra credit cards, etc., in a safe deposit box.
- Do not publicly announce your departure.

Bureau of Mines conducts Technology Transfer seminars

Groundfalls are the leading cause of fatalities in the underground coal industry. Of the 115 groundfall fatalities that occurred during 1986-91, 77% took place in Kentucky, West Virginia, and Virginia. Because so many groundfall fatalities are occurring at small mines in the southern Appalachian coal fields, the Bureau of Mines recently conducted technology transfer seminars at several locations throughout that area. The presentations at these seminars approached the prevention of groundfall accidents from two different perspectives: (1) how to train and motivate miners to protect themselves from groundfalls, and (2) how to identify and respond to various geologic conditions that affect roof stability in southern Appalachian mines.

The topics discussed in these seminars included: (1) techniques for keeping people away from unsupported roof, (2) training miners to recognize hazards associated with roof scaling, (3) increasing roof bolter operator awareness to the risks of falling roof material, (4) MSHA's Roof Evaluation and Accident Prevention (REAP) program, (5) ground control problems in multiple seam mining, (6) using lineaments to improve ground control, and (7) geologic structures affecting Appalachian mines (i.e., cutter roof, faults, slips, slickensides, clay veins, kettlebottoms, sandstone channels, and stress relief joints near the coalbed outcrop in drift mines).

Presentations were given by experts from the U.S. Bureau of Mines, the Mine Safety & Health Administration, the Kentucky Department of Mines and Minerals, West Virginia University, and the West Virginia Office of Miner Health, Safety and Training (the list of presenters varied somewhat from state to state).

Between October 1992 and January 1993, seminars were held in Kentucky (Pikeville, Hazard, Prestonsburg, and Pineville), Virginia (Big Stone Gap, Norton, Richlands, and Grundy), and West Virginia (Charleston). The seminars were co-sponsored by mine operators associations and state mining agencies in all 3 states. The audiences were diverse, including both managerial and hourly employees, as well as state and federal mining industry officials. Approximately 375 persons attended these seminars.

An 89-page proceedings containing the seminar papers have been published. This report, Bureau of Mines Information Circular No. 9332 is available free of charge by writing to:

U.S. Bureau of Mines
Publications Distribution, B 149
PO Box 18070
Pittsburgh, PA 15236

Keep kids in the swim

Children and swimming pools can be a deadly combination. If you have a pool, you can reduce the chances of drownings or submersion accidents through constant adult supervision, installation of barriers and alarms, and knowledge of cardiopulmonary resuscitation.

According to the U.S. Consumer Product Safety Commission, pool owners should adhere to local swimming pool regulations and implement these important safety features:

Barriers—A fence or barrier should completely surround the pool. If the house is part of the barrier, install and use an alarm on the doors leading to the pool. Fences and barriers should measure at least four feet high and have no footholds or handholds a child could use to climb. Openings in chain-link fences should be no larger than 1-3/4 inches; vertical slats should be no more than four inches apart to prevent a child from squeezing through.

Gates—They should be self-closing, with a self-latching mechanism out of reach of young children.

Doors—Install an audible alarm on all doors that lead from the house to the pool. A keypad or switch can allow adults to temporarily turn off the alarm for a single opening of the door. (Of course, this keypad or switch should be inaccessible to children.)

Steps and ladders—Secure, lock or remove any steps or ladders from an above-ground pool when not in use.

Pool covers—Always completely remove a pool cover when the pool is in use. And remove standing water from pool covers.

Supervision—According to a 1986 Commission study, 77 percent of children involved in drownings or submersion accidents had been seen within five minutes of being discovered in the pool. Never leave young children alone in or around the pool, even for a moment; adults should always be present. Instruct caregivers about the potential hazards to young children in and around a pool. Never rely on flotation devices or swimming lessons to protect a child

Emergency procedures—Parents and caregivers should know CPR and should immediately begin mouth-to-mouth resuscitation in the event of an accident. Also, keep a list of telephone and emergency numbers by the pool. Call for emergency help as soon as the victim has been pulled out of the pool and begin/continue resuscitation efforts until the victim responds or help arrives.

Diving—Young adult and teenage males are the most common victims of diving accidents. According to the Commission, roughly 700 spinal cord injuries from diving accidents occur each year. The result can be death or paralysis. For in-ground pools, dive only from the end of the diving board, never from the side or shallow end, and immediately steer up after entering the water. Slide feet first down a pool slide to avoid striking your head on the bottom of the pool. And finally, never dive into an above-ground pool; they are simply too shallow for safe diving.

Reprinted from the National Safety Council's ***Safety & Health*** *magazine of June 1992.*

Rocky Mountain District Sentinels of Safety Award Winners

Underground metal group

Republic Goldfields, Inc.	Congress Mine	AZ
Cyprus Minerals, Inc.	Casa Grande Mining Corp.	AZ

Underground nonmetal group

Martin Marietta Aggregate	Weepinq Water Mine	NE
American Gilsonite	Bonanza Mines	UT

Open pit group

Cyprus Industrial Minerals Co.	Yellowstone Mine	MT
C.R. Kendall Corp.	Kendall Mine	MT
American Colloid Co.	Belle/Colony Mine	SD
Homestake Mining	Homestake Mine Open Pit	SD
Power Resources, Inc.	Highland Uranium Project	WY
Montana Talc Co.	Johnny Gulch Mine	MT
Bentonite Corp.	Colony Mine	WY

Quarry group

Concrete Materials	Sioux Falls Quarry	SD
Quartzite Stone Co.	Wilson Ryan Quarry and Mill	AZ
Chemstar Lime Co.	Nelson Quarry & Plant	AZ
Dacotah Cement	Dacotah Cement Quarry	SD
Midwest Minerals, Inc.	Portable Plant No. 3	KS
Martin Marietta Aggregates	Moline No. 330	KS
Midwest Minerals, Inc.	Portable Plant No. 1	KS
Holnam	Portland Quarry & Plant	CO
Colorado Lien Co.	Owl Canyon Quarry	CO
Prairie Mining, Inc.	Plant No. 1	KS
Holnam, Inc.	Devil's Slide Plant	UT
Chemstar Lime Co.	Douglas Plant	AZ

Bank or pit group

The Tanner Companies	Plant No. 1	AZ
Salt River Sand & Rock	Portable Crusher No. 1	AZ
The Tanner Companies	Plant No. 2	AZ
The Tanner Companies	Plant No. 21	AZ
W.A. Morris Sand and Gravel Co., Inc.	Safford Pit	AZ
B & R Materials Corp.	Harrison-Escalante Plant No. 3	AZ

Dredge group

Western Sand and Gravel	Abel Spur Mill	NE
Holliday Sand and Gravel Co.	Muncie Dredge & Plant No. 5 & No. 6	KS

Holmes Safety Council benefits mining operations

Since September 1992, the Texas Hill Country District Council Holmes Safety Association has been meeting to discuss issues that affect the mining industry. Those mine-related organizations that are not aware of the advantages of joining this association should know that Holmes Safety Council Association participants:

- Gain useful information from other mining organizations in their area.
- Receive valuable material that can be used at their safety meetings.
- Discuss updates to MSHA Program Policy Letter and Part 57 Mandatory Standards.
- Act as sounding boards for other participants that have questions which are safety related.

Everyone benefits from practicing safe work habits. Call (512) 471-4633 and speak to Mr. Joe Wood or Mr. Jim Murray about attending the next Holmes Safety Council meeting.

Reprinted from the April-June 1993 issue of the Texas Mine Safety and Health Program's ***Nformation Letter.***

Skin takes a beating in sports

By Rodney G. Basler, M.D., Dermatologist

People who work out regularly are most certainly healthier and fit. A body that's in good shape is more effective at pumping blood, and at carrying oxygen and other nutrients to the skin and other organs. A healthy body can better resist colds, flu viruses, and other illnesses.

But, in addition to these rewards, there's an unexpected downside to working out: injuries. And because it's the single largest organ of the body, skin really takes a beating, whether in the backyard, the gym, the pool, on the courts, or out on the golf course. The friction of rubbing and the sweat from physical activities are the primary causes of many skin problems.

For all outdoors men and women, **sunburns** and suntans are a hazard. Dermatologists know that sunburns and overexposure to the sun can lead to skin cancer and premature wrinkling. Remember to apply a sunscreen with an SPF of 15 *at least a half hour before going out* and to reapply it every two hours.

Beware the sun's burning rays, especially between the hours of 10 a.m. and 3 p.m. Golfers should consider wearing two gloves so that the right hand doesn't age prematurely from unequal sun exposure. And all weekend athletes should wear hats to protect their heads, necks, and ears.

Hand and Foot Problems

Black heel or palm is not uncommon to weekend sportsmen. Tiny capillaries in the skin break open and bleed into the skin, causing discoloration in a spot that has been repeatedly pressured. The injury will heal naturally if you avoid the activity that caused the problem.

Tennis toe or jogger's toe occurs when the big toe bumps up against the front of the shoe, causing bleeding underneath the nail. Keep toenails well-trimmed and buy properly-fitted shoes. These should be high enough so the toe can be curled or bent comfortably. Soak the injured foot in warm water and give your feet a rest.

Corns are round knobs of tough skin that form over foot bones which push into the foot skin if your shoes are too narrow. This can happen on the soles, or on the sides of the feet, or between the toes. If the corns become painful, see your physician for treatment.

Calluses are caused by continued friction or pressure on any part of the skin which comes in contact with athletic equipment. Since feet carry all of a person's body weight, they're particularly susceptible to calluses. While gymnasts and some other athletes may feel hand calluses are an advantage, weekend athletes can prevent them by wearing tight-fitting ventilated gloves. Calluses heal naturally when left alone, but if they become annoying, soak them in water until soft and rub off the upper skin layer with pumice stone.

Blisters are friction injuries that can be prevented by using foot powder and wearing thick, padded cotton socks that absorb moisture. Again, make sure your footwear is properly fitted. Troublesome blisters should be treated by a physician.

Finally, for all sports-minded, physical fitness folks, there's the old familiar fungi,

athlete's foot and jock itch. These two conditions can be avoided by keeping skin clean and dry. Since athlete's foot is highly contagious, it's a good idea to wear rubber clogs in the locker room and in the shower. This may also prevent troublesome warts from developing on the soles of the feet.

For more information about athlete's foot or other skin problems, write to the American Academy of Dermatology to obtain a free pamphlet: Communications Department, American Academy of Dermatology, P.0. Box 681069, Schaumburg, IL 60168-1069.

Reprinted from the September 1992 issue of the American Academy of Dermatology's ***Skin Deep.***

Did You Know?

The Texas Mine Safety and Health Program (TMSHP) provides:

- **Spanish Fatalgrams.** These Fatalgrams are available on a subscription basis for $72 per year.
- **Materials in Spanish.** Several mine-related materials have been translated into Spanish. These materials may be purchased through the TMSHP.
- **Spanish translation services.** In the past, TMSHP has been able to help mining operations by translating forms and materials into Spanish for their operations.

If you would like more information about these and other services provided by TMSHP, please call (512) 471-4633.

Reprinted from the April-June 1993 issue of the Texas Mine Safety and Health Program's ***Nformation Letter.***

Answers to "eye" quiz *from page 6*

1. ***True.*** *Of the 40% of injuries that occurred while wearing eye protection, 94% happened when particles or chemicals went around or under the protection. Goggles or full-face shields are more appropriate in many circumstances than safety glasses, even those with side shields.*

2. ***False.*** *It is important to match the eye protection to the specific hazardous conditions that might be encountered.*

3. ***True.*** *Unless, of course, the scratches obstruct your vision. Scratches on glass lenses, however, weaken their impact resistance.*

4. ***True.*** *Since face shields normally swing up or down on the headgear, safety glasses or goggles should be worn underneath.*

5. ***False.*** *As with other types of injury, engineering controls should be the first line of defense against eye injuries; but unless they are 100% foolproof, it's still a good idea to wear eye protection.*

6. ***False.*** *In most circumstances, contact lenses are now considered to be quite safe on the job. That story a few years ago about the welder having his contact fused to his eye is another "urban legend." High water-content soft lenses may not be suitable around chemical fumes as they can absorb the fumes. Notify your supervisor if you wear contacts.*

7. ***False.*** *Both eyes should be lightly bandaged and medical attention sought immediately. Particles that do not pierce the eye may be flushed out with water.*

8. ***False.*** *There may be internal damage. Any blurring of vision is a definite sign that medical attention should be sought.*

9. ***False.*** *Welder's flash is just one example of eye damage that may not be noticed for several hours. Alkalis splashed in the eye may continue to penetrate and damage eye tissue for up to four days with no pain noticed.*

10. ***True.*** *Cutting the grass, trimming bushes, snowplowing, and carpentry are all examples of off-the-job activities in which eye protection should be worn.*

11. ***True.*** *It only takes a second to be injured or even to permanently lose your sight.*

Reprinted from the April 1993 issue of Canada's Mines Accident Prevention Association's ***Safety Reminder***

Be aware of spring driving hazards

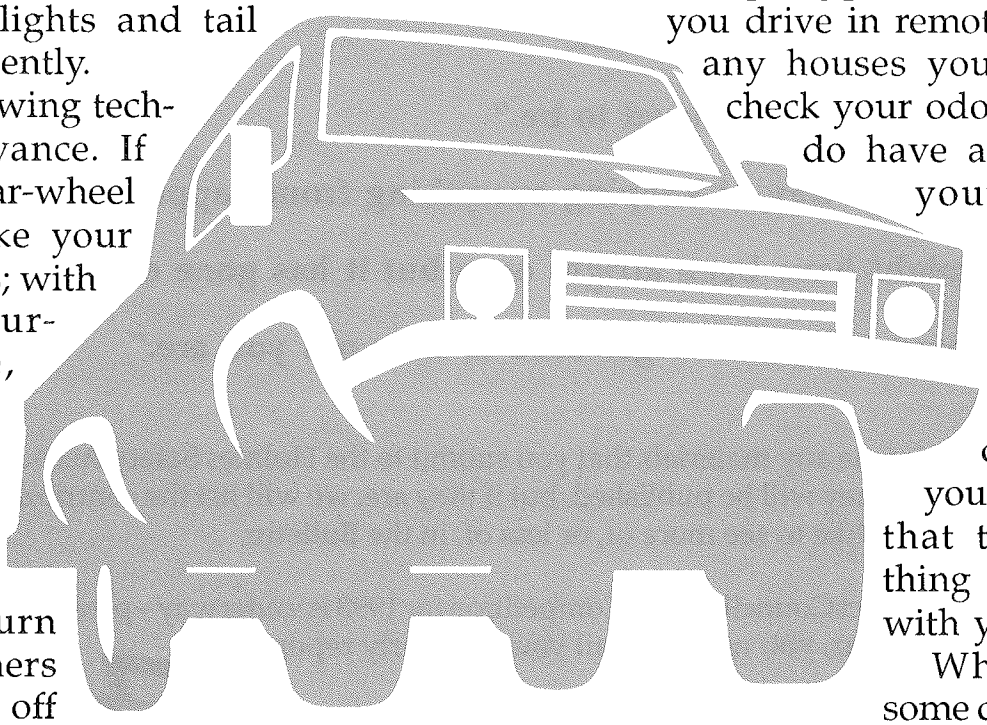
April showers may bring May flowers, but changeable spring weather can also cause traffic accidents.

Get ready

To cut your chance for driving mishaps, prepare your car for spring.

- Install new windshield wiper blades and make sure your windshield cleaner well is full.
- Keep your tires inflated and replace worn ones.
- Test your horn, hazard lights, and heater.
- Wipe headlights and tail lights frequently.

Practice slowing techniques in advance. If you have a rear-wheel drive, just take your foot off the gas; with front- or four-wheel drive, slow down more gradually. If you must pull off the road, remember to turn on your flashers and pull as far off the road as you can.



On the road

When you drive this spring watch for icy patches, especially beneath overpasses, on bridges, and in shady areas. If you hit one, pump your brakes slowly and slow to a crawl. If you skid, take your foot off the brake right after you steer in the direction you want the car to go; the car will tend to straighten itself out.

Sudden thunderstorms or downpours can pose another hazard. Rain mixed with oily road deposits makes surfaces extra slick. Hydroplaning, when tires ride on a thin film of water instead of on the pavement, can also occur and reduce your control.

The little extras

Take other spring precautions too. When you drive in remote areas, note any houses you pass. Then check your odometer. If you do have a breakdown, you'll know whether you can manage a walk back for help. If weather conditions strand you, experts say that the smartest thing to do is stay with your car.

When worrisome driving conditions make you tense, take deep breaths. Think of something pleasant, sing along with the radio and stay calm—sunny skies are just ahead!

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

The last word...

"Nobody has ever bet enough on the winning horse."

"The good lord never gives you more than you can handle. Unless you die of something."

"Seriousness is the only refuge of the shallow."

"It is better to be a coward for a minute than dead for the rest of your life."

"The reverse side also has a reverse side."

"Tell the truth and run."

"Love is an ocean of emotions entirely surrounded by expenses."

"The school of hard knocks is an accelerated curriculum."

"A closed mouth gathers no feet."

"The future isn't what it used to be."

"Time is nature's way of keeping everything from happening at once."

"Progress might have been alright once but it has gone on too long."

"It takes about ten years to get used to how old you are."

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