

MARCH 1980



BULLETIN



United States Department of Labor

MSHA

Mine Safety and Health Administration

March 1980

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WINNERS vs LOSERS

- | | |
|------------|--|
| THE WINNER | IS ALWAYS PART OF THE ANSWER. |
| THE LOSER | IS ALWAYS A PART OF THE PROBLEM. |
| THE WINNER | ALWAYS HAS A PROGRAM. |
| THE LOSER | ALWAYS HAS AN EXCUSE. |
| THE WINNER | SAYS "LET ME DO IT FOR YOU." |
| THE LOSER | SAYS "THAT'S NOT MY JOB." |
| THE WINNER | SEES AN ANSWER FOR EVERY PROBLEM. |
| THE LOSER | SEES A PROBLEM IN EVERY ANSWER. |
| THE WINNER | SEES A GREEN NEAR EVERY SAND TRAP |
| THE LOSER | SEES TWO OR THREE SAND TRAPS
NEAR EVERY GREEN. |
| THE WINNER | SAYS "IT MAY BE DIFFICULT BUT IT'S
POSSIBLE." |
| THE LOSER | SAYS "IT MAY BE POSSIBLE BUT
IT'S TOO DIFFICULT." |

BE A WINNER

March 1980



HOLMES SAFETY ASSOCIATION MONTHLY SAFETY TOPIC

THE SAFETY CIRCUIT CENTER

Today we want to discuss a piece of safety equipment on our section that protects us from certain electrical hazards and reduces the potential for mine fires. Of course, I'm referring to the safety circuit center or "breaker box."

The breaker box has been designed to automatically remove power from a circuit in the event of an overload or electrical ground in either the cable or machine.

Safety circuit centers are rugged devices and will withstand some ill treatment and rough handling, but there is a limit to its capacity for abuse.

In order for this device to properly perform its safety function, there are certain procedures or good work practices that should be followed at all times, such as the following:

1. When moving the breaker box to a new location always use the handles or pull on the frame. Never pull on the ends of the cable at the entrance to the box. The cable is designed to carry electricity and not to be used as a handle.
2. Make good, strong cable splices. Any job worth doing is worth doing well. The splice should be properly insulated and all exposed wires covered as protection against moisture.
3. Frame ground to be securely fastened to the rail or return ground line insuring protection to the operators against electrical shock.
4. In the event the safety circuit center "knocks the power" to your equipment, locate and correct the problem. Never be guilty of setting up the condition for a mine fire by connecting the cable straight to the power without the benefit of a safeguard.

The most useless and unnecessary occurrences in mining are fires and explosions. Do your part to reduce these hazards by properly caring for the safety circuit center.

(For use in all mining operations)

March 1980



HOLMES SAFETY ASSOCIATION MONTHLY SAFETY TOPIC

WHAT DOES SAFETY MEAN?

SAFETY means a way of life and a way to live.

SAFETY means looking out for others as well as yourself. Don't leave safety to the experts.

SAFETY means being alert to what could happen and preventing it.

SAFETY means you should leave a margin for error. Never take a chance.

SAFETY means use of proper equipment. Wear it, use it. Safety is common sense.

SAFETY doesn't just happen. It is achieved by people.....thinking SAFETY.

CAUSE AND CURE

ACCIDENTS are caused.

If you've heard those words once you've heard them a thousand times, right? You hear them at safety meetings and see them on posters. But did you ever give very much thought to just exactly what they mean?

The meaning can be made clearer by adding just three words. Accidents are caused--by human faults!

What are these human faults? Lack of knowledge or training, fatigue, recklessness, stubbornness, laziness, haste, and failure to provide adequate safeguards, just to mention a few.

One thing is evident. Such human faults can be corrected and accidents can be cured--by you!

(For use in all mining operations)



March 1980

Session LXX

HOLMES SAFETY ASSOCIATION MONTHLY SAFETY TOPIC

Federal Mine Safety and Health Act of 1977

Section 303(p)

Part 75.317 of the Code of Federal Regulations

Maintenance of Detecting Devices

Section 303(p) of the Act (Part 75.317 of the Federal Register) requires that each operator shall provide for the proper maintenance and care of devices for detecting methane and oxygen deficiency, including flame safety lamps.

The person(s) designated by the operator to maintain and care for permissible flame safety lamps and other devices for detecting methane and oxygen deficiency shall be trained in the maintenance and care of each such device that is used in the mine. Extreme care should be taken to insure that all detectors are in permissible condition before being carried and used underground. After flame safety lamps have been used underground for a shift or less, they are to be removed from service, checked, serviced, cleaned, and tested before they are again taken underground. Permissible methane-detecting equipment, other than flame safety lamps, is to be calibrated periodically for accuracy in a known methane-air mixture at least once a month or at intervals not exceeding 31 days.

It is very important that all gas-detecting devices be properly maintained and in permissible condition at all times. Bureau of Mines records indicate that between July 1952 and January 1970, there were 17 recorded ignitions and explosions that were attributable to defective flame safety lamps. During the occurrence of the 17 ignitions and explosions, five miners were killed and 25 were injured. There have been no recorded ignitions or explosions that were originated by properly assembled, well-maintained flame safety lamps. To date, there have been no recorded ignitions resulting from permissible battery-powered methane detectors.

(For underground coal-mining operations)

Each miner who carries a flame safety lamp or other detector should make a thorough visual examination of his flame safety lamp or detector before taking it underground. The average miner using a flame safety lamp that is well maintained, despite claims to the contrary, is unable to measure methane in the mine atmosphere at low percentages, except under ideal conditions that are not normally found in the mines. All persons who are required to make tests with flame safety lamps and electrical methane detectors are required to become qualified in their use by receiving instructions according to MSHA instructional guides. (A demonstration by the instructor should be given at this time in the proper care and use of detectors being used in this mine.)



March 1980

HOLMES SAFETY ASSOCIATION MONTHLY SAFETY TOPIC

THE SUPERVISOR AND RESPONSIBILITIES

How many of you have given some thought as to the duties and responsibilities of a supervisor?

It is the supervisor's duty to use to the best advantage the resources the company has placed at his disposal, such as equipment, supplies, and tools, and to comply with company policies.

To accomplish all this requires considerable doing, for in addition to company responsibilities, a supervisor has an obligation to those he works with as well as many legal responsibilities.

Since you are the actual producers, your welfare and performance must receive first consideration, and the supervisor must make every effort to maintain good working conditions and see to it that machines and equipment are in a safe and proper working order. These, of course, are the critical factors. Supervisors are obligated to see that your jobs are performed in a manner and environment in keeping with safe and efficient standards. To do this properly, the supervisor must understand each job in order to realize the hazards involved and assist in the planning of the safest procedures. Your advice is needed and desired for every source will be explored that might give information on safe standards and practices.

Most supervisors believe that the best way to prevent accidents is training and "on-the-spot" correction of substandard performances and substandard conditions. If they ignore violations of safety standards and allow substandard conditions to exist without correction, what will be the end result? Someone will be injured. This neglect of duty would be a reflection on their ability as supervisors and as responsible citizens.

It is the obligation of the supervisor to help develop safety thinking in the crew so that each will acquire safe working habits. Many of our habits are developed by watching the actions of other people, so it is the supervisor's duty and responsibility to be a model of safety.

Often a supervisor must exercise their best judgment in choosing the procedures to be used and methods to be followed. Naturally, decisions concerning many different things will need to be made, some without much information available and often on the "spur of the moment."

(For use in all mining operations)

These decisions may not always be the best or the most popular but they are the supervisor's alone to make. In making these decisions, a supervisor must consider all situations as they are at the time, or will be in the future, and how the other phases of his responsibilities will be affected.

One of the major responsibilities of a supervisor is that of having each miner accepted as a full-fledged member of the crew in order that the work will be both satisfying to the miner as well as a means of making a living. Naturally, this requires a lot of cooperation and understanding from everyone in the crew. A crew expects, and rightly so, loyalty from their supervisor if everyone is to perform his job in a satisfactory manner. If a supervisor is to be any benefit to the company, he must recognize the miners as individuals in order to develop the cooperation and teamwork that is so necessary for the successful performance of a job. If there are any minor frictions between individuals, the supervisor must learn to recognize them, find out the trouble, and correct them, if possible. Life is so much more pleasant for all of us when we get along with everybody, and cooperation results in a crew being more safe and productive.

Conditions in the mine are constantly changing, some good and some bad, which affect our safety, our production, and require that decisions be made. Attitude and general outlook concerning your jobs are also subject to changes which again affect all of us. As individuals, we must meet these changes with an open mind, keeping in mind our various responsibilities and obligations.



March 1980

HOLMES SAFETY ASSOCIATION MONTHLY SAFETY TOPIC

ELECTRICIANS AND MECHANICS

In a previous meeting we talked briefly concerning two aspects of the varied duties of electricians and mechanics, roof control and handling of machinery. Today we will discuss proper lifting procedures, safe blocking of equipment, and a short briefing on hand tools.

The majority of the objects that you handle are heavy and, quite often, are difficult to position when placing onto a piece of equipment that is undergoing repairs. There are enough people on the section to give you the assistance needed to safely handle these heavy and awkward lifting duties. We appreciate your eagerness to get a piece of equipment back into production, but all repairs should be performed in a safe manner. Proper lifting will do much to reduce the number of back injuries that, too often, appear in our accident report.

Still another subject for our discussion is the necessity of proper blocking of equipment while it is undergoing repairs. Safe blocking of machinery is even more critical when it is necessary for you to have a part or all of your body beneath any portion of the equipment. Sudden shifting of the equipment for even a few inches could prove to be fatal. Loading booms and heads of loading machines and continuous miners should be blocked in such a manner that there can be no possibility of their falling.

You are aware that the power should be removed from the equipment before these repairs are started. There will be occasions, however, when it is necessary for the power to be on the machinery in order for some electrical features to be checked. Good judgment is of prime importance when performing your duties under these circumstances. No other type of work should be permitted or performed on the equipment when the power has been connected for you to inspect an electrical feature. Persons in the area should be warned to stay clear in the event the equipment might move or start to operate with no one at the controls. The controller in the "off" position does not remove the possibility of the machinery operating due to a malfunction, such as a "grounded" coil.

The proper use of hand tools is also important in the performance of your job. This may appear to be a minor feature of your job, but reports indicate that many serious injuries have resulted from the improper use of hand tools. As one example, a wrench, improperly

(For use in all mining operations)

seated due to incorrect size or type, could slip and produce a chain reaction that might prove fatal to you or some other person in the immediate vicinity. The subject of hand tools will be dealt with in more detail in future meetings, but for the present, heed this good advice: Use proper tools for the job.

March 1980



HOLMES SAFETY ASSOCIATION MONTHLY SAFETY TOPIC

ELECTRICITY - ONLY FOR ELECTRICIANS

Today we are concerned with why we should leave electricity to the electricians. Most of you haven't had the proper training to perform these jobs in a safe manner, and could make mistakes that might prove fatal. We use a lot of electricity in our work, and it can be deadly if misused. You aren't supposed to be electricians and to know how to make electrical repairs, but there are certain facts you should know to protect yourself against electrical shock.

The first point to remember is that it isn't the amount of electricity in a circuit that makes the difference between life and death, but the amount of current that runs through the vital parts of your body. The only difference between high voltage and low voltage is that the higher the voltage the better the possibility of your being killed if you come in contact with it. Even 50 volts have been known to kill when conditions were right, so don't be fooled by low voltage.

Electricity in any wire can be thought of as always moving from positive to negative or return in a closed circuit with the insulation keeping the electricity flowing in the conductors.

Suppose we attempt to see what develops when someone touches a wire carrying 110 volts. If their hand is dry and clean and they are standing on something that has a high resistance to the flow of electricity and is not touching any grounded metal, the possibility is good that the total resistance through them will be so high that no more than a slight tingle will be felt. But if they are hot and sweaty and standing on a grounded metal surface, their resistance will be so low that enough current will flow through to render them unconscious. Death could result if artificial respiration is not given at once.

Another possibility is that you may get only enough current to paralyze your muscles, and you would be unable to get loose. When this happens, it is likely the shock would be severe enough to be fatal.

You can see that the quicker the current is shut off, the better a victim's chance of survival. If you happen to be nearby when someone is caught in this predicament, use good judgment in rescuing them. Remove the power, if possible, but if it is quicker to free them by other methods, be sure not to get caught yourself.

(For use in all mining operations)

Following are some suggestions that will help keep you safe from electrical hazards:

1. If any electrical device or piece of equipment starts to give off sparks, overheats, or smokes, make no attempt to repair it yourself, but instead, shut it off and report the incident to the supervisor or the electrician.
2. Stay away from all electrical switches or other protective devices unless you have been authorized to handle them and instructed in their use.
3. If you are authorized to replace fuses or any other protective device, follow the operating instructions you have been given. Never bridge a fuse. The fuse is your best safety device on any electrical circuit.

If you follow these safety rules and operating instructions, the possibilities of electrical shock accidents will be greatly reduced.

Do not tackle any electrical job you haven't been assigned to, and then do the job in the manner in which you have been trained.

March 1980

ABSTRACT FROM FATAL ACCIDENT

HOLMES SAFETY ASSOCIATION
MONTHLY SAFETY TOPIC



FATAL FALL-OF-MATERIAL ACCIDENT

General Information: A truckdriver died of a heart attack as a result of an accident in which he was buried with sand while trying to clean material from a conveyor system.

Description of Accident: The victim reported for work at his normal starting time. Work proceeded normally until the Euclid truckdriver parked his vehicle under the shaker screen. He observed that the system was not feeding very well. The truckdriver went to check the feed chute area and found two large sand rocks wedged and holding the sand from feeding onto the conveyor belt. The truckdriver signaled by hand signal to a front-end loader operator, that the conveyor system was plugged and not to dump any more sand into the feed chute. The truckdriver with the conveyor in operation, began to scale the banks. As the banks caved off, the falling sand knocked the scaling bar from his hands, the bar penetrated the conveyor belt, and wedged between the belt, a conveyor roller and the brace of the sand feed control gate. The victim arrived on the scene at this time and the truckdriver told the victim to shut off the power to the conveyor. Without the equipment being locked out they both entered the feed chute and tried to dislodge the scaling bar. Work proceeded in this manner for about 10 minutes.

At the same time, a loader operator was stockpiling sand to be placed into the feed chute when the blockage was cleared. The loader operator inadvertently, due to a habitual response, dumped a bucket of sand into the feed chute where the victim and the truckdriver were working. The victim was completely covered by the sand and the truckdriver's right leg was buried up to his crotch. As soon as the accident happened, the truckdriver started digging with his hand and he had the victim's face and head uncovered within a few seconds.

As soon as the loader operator realized what had happened, he stopped the loader and ran to the feed chute. By the time he arrived, the truckdriver had the victim's head uncovered. The loader operator then went for help and called an ambulance and the rescue squad.

At the time the rescue squad and ambulance arrived, the employees at the mine had the truckdriver and the victim freed from the sand. The men were checked by the rescue squad and transported by ambulance to the hospital. Both men were checked by the doctor on duty.

(For use in surface mining operations - noncoal)

Both men were released from the hospital. The truckdriver was allowed to return to work. The victim was advised to take 10 days off before returning to work.

The next day the victim was found dead on the floor of his home. The coroner attributed the death to a heart attack caused by the compression of the chest and the bruising of the heart muscles due to the weight of the sand he had been covered with during the accident on the previous afternoon.

Cause of Accident: The direct cause of the accident was the failure to use safety belts and lines and having a second person tend the lines while persons are working in feed chutes. If the man had been wearing a safety line with a person in attendance on that line, the accident would have been avoided. The person in attendance would have stopped the loader operator from dumping sand into the feed chute. A contributing cause of the accident was the daily routine of the loader dumping into the feed chute so that the work became a conditioned response instead of a work procedure.

Recommendations: Safety belts and lines shall be worn when work is performed where there is a danger of falling; a second person shall tend the life line when bins, tanks, or other dangerous areas are entered.

Electrically-powered equipment shall be deenergized before mechanical work is done on such equipment. Power switches shall be locked out or other measures taken which shall prevent equipment from being energized without the knowledge of the individuals working on it.

March 1980

ABSTRACT FROM FATAL ACCIDENT

HOLMES SAFETY ASSOCIATION
MONTHLY SAFETY TOPIC



FATAL ELECTROCUTION ACCIDENT

General Information: A contract truckdriver was electrocuted when the bed of the trailer he was raising came in contact with a 7,200-volt overhead powerline. The victim had approximately 7 years experience as a truckdriver, 1 year with his current employer.

The mine was an open-pit limestone mine. A multiple-bench method of mining was used to produce limestone and aggregate lime. Blasted material was hauled from the quarry, crushed, screened and stockpiled by conveyor and trucks.

A Ford, 9000, diesel tractor, operated by the victim, (pulling a 28-foot end-dump trailer) was involved in the accident.

The ground area where the accident occurred was very moist from other truckdriver's washing out the beds of their trucks and water placed on the ground for dust control.

Description of Accident: The victim and a coworker and driver of a similar truck, had been hauling aggregate lime. They had arrived at the office and the coworker stated that the victim told him he was going to the restroom. The coworker proceeded to the area where they washed the beds of their trucks. The coworker backed his truck in, raised the bed and started washing out the bed of his truck. The coworker stated it was normal for them to do this after hauling aggregate lime before switching to other materials.

The coworker further stated he was standing at the back of his truck when the victim backed his truck in beside his on the left side. The bed on the victim's trailer started to raise and the victim walked to the rear of his trailer and tripped the tailgate. He then went back toward the tractor. The coworker stated he heard the motor speed up and saw the bed raise up. He heard a noise and saw the tires of the victim's trailer on fire. He threw down the hose he was using and went around the victim's trailer to see what was going on. This is when he saw the victim lying on the ground beside the tractor, on the driver's side, on his back with his legs near the rear wheel of the tractor. The coworker saw that the tires near the victim's legs were on fire. He grabbed the victim by both arms and pulled him away from the tractor because of the fire. He yelled for an employee working in the area to call for an ambulance and told another employee to bring him a board that was dry. He used it to lower the bed of the trailer that was touching the overhead powerline.

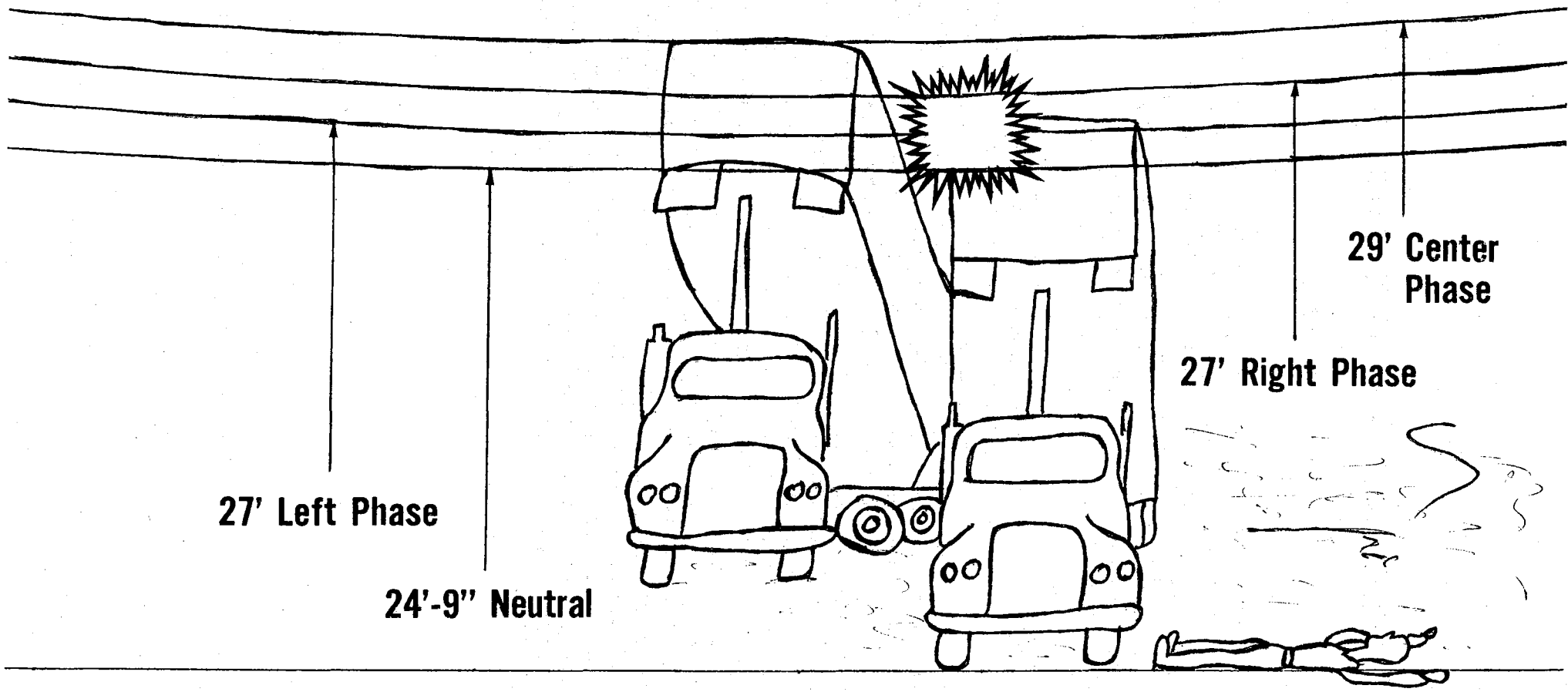
(For use in surface mining operations - noncoal)

Attempts to revive the victim using CPR failed. The ambulance attendants attempted to revive the victim using the bagmask and heart compression method. He was pronounced dead on arrival.

The victim was electrocuted when he apparently stepped from the tractor to the ground while holding onto metal parts of the tractor or trailer.

Cause of the Accident: The cause of the accident was the victim's failure to recognize the 7,200-volt powerline and raising the bed of his trailer into contact with it.

Recommendations: Hoses for washing out truck beds should be placed in areas away from overhead powerlines. Highly visible markers should be placed on all overhead powerlines where they could be seen. (See sketch).



27' Left Phase

24'-9" Neutral

27' Right Phase

29' Center Phase



March 1980

HOLMES SAFETY ASSOCIATION MONTHLY SAFETY TOPIC

What Are The Odds?

When you take a chance at cards, generally, the most common stake is money and an exchange takes place. In the mine, when you take a chance on safety, the best you can do is break even. If you lose, you either get killed or injured. I believe we all agree that this is a bet only for "suckers," and no self-respecting poker player would be caught dead in a game like that.

Now, let's give some thought to improving the odds in our favor. Unlike cards, where the hands drawn from an honest dealer are determined by chance, your chances in safety are generally in your control. This is illustrated by the record of fatal and nonfatal roof-fall injuries which reveals that in three of four instances the safety rules were broken in that the roof-support plan was not followed. Some say we can't lick human nature, but the fact that there are mines that have gone injury free for a year or more indicates we can skin the creature instead of just nicking its hide. In order to do this, I believe we must impress the idea of safety on our mind so that safe actions become instinctive. If you doubt that it can be done, give a thought to primitive man and his reaction when he saw a "sabre-tooth tiger." If "old sabre tooth" appeared today in our midst, we would react instinctively much in the same way. That reaction would have become a safety rule. I'm sure that this rule developed after a number of our ancestors learned the hard way and didn't live to profit from their learning. Primitive societies improved their chances for survival by making safety habits instinctive. Don't you think we can do as well?

(For use in all underground and surface mining operations)



March 1980

HOLMES SAFETY ASSOCIATION MONTHLY SAFETY TOPIC

THE HUMAN SPECIES--ENDANGERED?

There is an insidious logic that implies that society must adapt to machines, not machines to society; that production, speed, novelty, progress at any price must come first, and people second; that mechanization may be pushed as far as human endurance will allow.

It ignores experience - which tells us we should not add new strains and pressures and discomforts to a high-pressure world.

Certain brilliant people are so engrossed in engineering techniques that they have seemingly lost sight of their own species.

Our goal should be to accomplish both a full production and a full life. . . a national prosperity of the human spirit.

Gross National Product is our Holy Grail; the economists and statisticians its keepers. Statistics concerning auto output, steel production, heavy construction, housing starts, freight-car loadings have become the indices of the American advance.

Yet, we have no environmental index, no census statistics to measure whether the country is more or less liveable from year to year.

A tranquility index, a cleanliness index, a privacy index, might have told us something about the condition of society, but a fast-growing country bent on piling up material things has been indifferent to the "little things" that add joy to everyday living.

Despite the amazing advances of science, the approach to our overall world effort at human betterment is most unscientific. We have long since perfected the concept of the land's carrying capacity for animals, and we practice the principles of sustained yield in the management of trees and plants. Yet we abandon the idea of natural balance when we come to our own species.

We have mastered the arts of animal husbandry, we know the life laws of crops and insects, we know how to plan our agricultural output. In effect, we have enhanced the future of everything - except the overall future of the human race.

(For use in all mining operations)

The time has come for us to evolve an ecology in harmony with the constantly unfolded ecologies of other living things. We need a science that will seek to determine the interrelationships of life, interrelationships whose understanding will enhance the human condition.

One could contemplate the United States a century from now with equanimity if our growth rates and growth patterns reflected a mature, purposeful national will. Arrogant events and the headlong pace of material progress have left us little time to ask what people are for, or to agree on long-term societal aspirations. We have learned neither how to grow nor at what pace, and that is our failing and our future trouble.

If we are to establish the secure foundations of an equal-opportunity society and master the sensitive arts of building a life-encouraging environment, than at this moment in history we need to realize:

BIGGER IS NOT ALWAYS BETTER; SLOWER MAY INDEED BE FASTER; LESS MAY WELL MEAN MORE.

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LAB 441

MSHA, Office of Holmes
Safety Association
Education and Training
P.O. Box 25367
Denver, Colorado 80225



HOLMES SAFETY ASSOCIATION
MEETING REPORT FORM

For the month of _____

TOTAL meetings held this month _____

TOTAL attendance this month _____

Chapter Number _____ (See address label, if incorrect, please indicate change.)

(Telephone No.)

(Signature)

(Title)

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