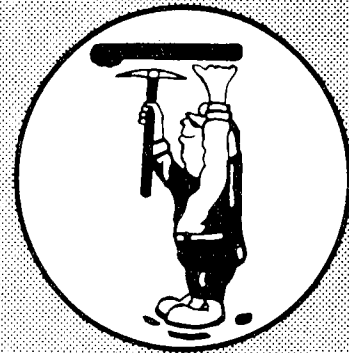
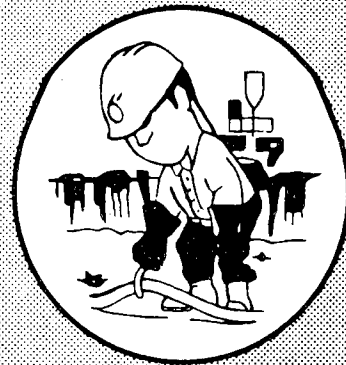


September 1982



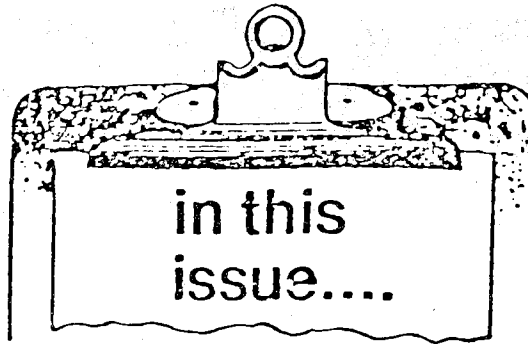
# BULLETIN



**"SAFETY"**  
It's Up to You,  
In '82



# HOLMES SAFETY ASSOCIATION



September 1982

1. NEWS...MSHA Seeks Comment on Review of Underground Coal Mine Safety Standards
2. Safety Topic, "Warning--Explosion"
3. Safety Topic, "Warning--Explosion Season"
4. Posters, "Safety Tips"
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"Practice What You Preach"  
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"Thought"
8. Safety Topic, "Know Your Mine"
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10. Safety Topic, "Lucky You"
11. Safety Topic, "Slogans"
12. Safety Topic, "Part 55.17--Illumination  
55.18--Safety Programs"
13. Safety Topic, "In a Day's Time"
14. Abstract, "Roof Fall Accident"
15. Abstract, "Drowning Accident"
16. The Last Word
17. Meeting Report Form (chapters only)

# News

United States  
Department  
of Labor



Office of Information

Washington, D.C. 20210

MINE SAFETY AND HEALTH ADMINISTRATION

## MSHA SEEKS COMMENT ON REVIEW OF UNDERGROUND COAL MINE SAFETY STANDARDS

The Department of Labor's Mine Safety and Health Administration (MSHA) is asking the mining community for written comments on the review and possible revision of safety standards applicable to underground coal mines.

In an advance notice of proposed rulemaking published in the Federal Register of July 9, 1982, MSHA announced that the agency is soliciting comments in three specific areas: roof support, blasting and explosives, and ventilation plan requirements and criteria. In addition, MSHA is seeking written comments relating to the applicability and effectiveness of any of the underground coal mine safety standards in Part 75 of Title 30, Code of Federal Regulations (CFR).

"Early public participation will assure the success of MSHA's review of the existing standards," said Ford B. Ford, assistant secretary of labor for mine safety and health. "Suggestions from the mining community will help MSHA to identify the standards that need to be revised and to establish priorities for possible regulatory action."

This review will enable MSHA to improve its existing safety standards to promote the health and safety of miners and further the goals of regulatory reform. The agency will use information gathered during this initial review process to evaluate the adequacy of existing standards, eliminate unnecessary reporting or recordkeeping requirements, minimize conflicting provisions, delete irrelevant standards, simplify and consolidate existing regulations, update standards to conform to the latest technological developments, and clarify and reorganize standards, where necessary.

MSHA urges the mining community and other interested persons to submit written comments on any of the underground coal mine safety standards, and particularly those pertaining to the approval of roof control plans and plans for ventilation systems and methane and dust control, as well as those pertaining to explosives and blasting standards, including the related requirements in 30 CFR Parts 15, 16 and 17.

Written comments should be submitted to the Mine Safety and Health Administration, Office of Standards, Regulations and Variances, 4015 Wilson Boulevard, Arlington, Va. 22203.



September 1982

## HOLMES SAFETY ASSOCIATION MONTHLY SAFETY TOPIC

# WARNING

# WARNING

# EXPLOSION

Explosions of gas and dust in coal mines have caused death and injury to miners and destruction of workings in all countries where coal is mined underground. In the United States the first reported explosion was in 1810; explosions have continued to the present. The danger to miners when an explosion occurs is not always measured by the violence created or by their nearness to the area through which flame and violence extend. As many, perhaps more miners have been killed by the blast and heat. Mine explosions often are caused by a combination of factors, including concentration of methane in air, formation of clouds of dust, and the presence of a flame or spark. These explosion factors have varied with changes in mining methods and practices over the years, but the basic causes have always been the same. Understanding of the causes and acceptance of ways to guard against explosions and their effects have been slow to spread from investigators to officials and then to bosses and miners. To a considerable extent there has been a belief that explosions were a mining risk that might be put off but could not be prevented. Such belief is based on the human failure to maintain and observe necessary precautions. These failures, caused by inertia to change, carelessness, or reliance on continuance of past explosion-free years, are being reduced in number and effect by education of miners and supervisors and acceptance of higher prevention standards.

The mine explosion is probably the most dreaded event in the coal industry. Each of us has spent many hours thinking about and discussing with others mine explosions, reasons why and how they occur, as well as the methods needed to eliminate them from the industry. We are not going to discuss methane-air ignitions; such information is readily available in many MSHA and Bureau of Mines circulars.

# MINE EXPLOSION SEASON

However, do you know that it takes three ingredients to have a gas explosion--a volume of methane in the five to fifteen percent explosive range, oxygen, and an igniting agent? The maximum explosion requires a methane air mixture with nine to ten percent methane, two volumes of oxygen to burn one volume of methane, and a flame or spark with a temperature of more than 1,200°F. Only small, insignificant amounts of methane (as little as 150 cubic feet) will initiate an explosion.

Nearly all gas explosions in recent years have occurred when methane accumulated at a working face or a number of working faces because of inadequate ventilation. The inadequate ventilation resulted from numerous reasons, accidental or intentional damaging of ventilation controls, nonuse of checks and line curtains, tying up of checks, and insufficient face ventilation. The investigation of most of the explosions in recent years showed clearly that although two, three, four, or five flame safety lamps were carried by section employees and officials or were on the section, methane accumulated and no one detected the methane. Thereafter, the accumulated methane was ignited by electrical face equipment.

Nearly every extensive explosion that occurred in a coal mine during the past 20 years occurred because of the aforementioned practices. Failure to detect the accumulated methane with flame safety lamps was the basic reason for Congress requiring that methane examinations be made with an approved device capable of detecting small percentages of mine gas. Investigators of nearly all these explosions were able to walk to the ignition, recreate the employee work patterns, and identify the piece of equipment that caused the arc or spark. We were generally able to learn how and why the methane accumulated, but we were never able to explain why neither the section officials nor the employees failed to detect the accumulated methane.

Although most coal mine explosions begin with the ignition of a methane-air mixture, extensive and all widespread explosions are propagated by coal dust. The size and violence of an explosion is determined by three things: first, the body of methane that is ignited; second, the method of ignition; and third, the amount of available fuel (coal dust) for propagation. A given quantity (volume) of methane when ignited will expand only several times its original volume; therefore, explosions of only methane are never extensive. A methane-air mixture, containing nine to ten percent of methane creates greater violence and force because of the ideal two volumes of oxygen to burn one volume of methane. The most violent explosions generally occur when the propagating agents, dust and/or methane, are ignited by blasting or something similar such as the wrecking of a moving haulage trip.

Some explosions move very rapidly and are considered fast-moving explosions; others move slowly and are called slow-moving explosions. A slow-moving explosion generally develops when the accumulated methane is near the lower or higher explosive range, five to six and twelve to fourteen percent, and when the igniting agent is near the 1,200 degree range rather than much higher.

When the ignition area is adjacent or close to open mine areas, the explosion forces expand, spread, and dissipate quickly, and generally, a slow-moving explosion develops. When the ignition occurs near the face of an entry in development work, the explosion takes a gun-barrelling effect and accelerates rapidly. Personnel at the Bureau of Mines Research Center in Bruceton have been able to record explosion travel at almost unbelievable speeds and developing pressures in excess of 300 pounds per square inch. Evidence in some mines following widespread explosions indicates that speed and pressure developed by the explosion greatly exceeded any explosion speed or pressure recorded at the experimental mine in Bruceton.

A widespread explosion must be propagated by coal dust, and the dust must be in suspension for propagation. Actually, the explosion moves by flame of one dust particle jumping to the next particle; therefore, the more dense the coal dust cloud, the greater the force and speed of the explosion wave. Occasionally, the moving explosion will do what we describe as sweeping. For some reason, a stretch of mine entry will be cleaned completely, the entry ribs will be eroded of all loose material, and the mine floor will be cleaned as if with compressed air. We have observed such areas extending from 10 to 200 feet in length.

In determining the direction the explosion has traveled, the experienced investigator checks for impinged dust and streamlining of dusts on posts, timber sets, offsets, and projections. Evidence of gas burning in return airways, crosscuts, and dead ends are often left for the investigator in the form of coking or roof, ribs and/or floor, soot streamers, and discoloring of the roof and ribs. The movement of debris, equipment, and supplies are generally not meaningful in determining direction of the explosion travel or points of origin.

While all of these items are important and information you should have to investigate an explosion, they are often minor items in determining where an explosion originated and the path of travel. The key evidence and the only completely reliable indicator of the origin of an explosion is the stoppings across the entries near an intersection. Such stoppings are necessary for ventilation, are installed in all mines, and show positively the direction of travel. If such stoppings are blown outby, the explosion forces were traveling from the entry faces. If the stoppings are blown towards the entry faces, the explosion forces were traveling towards the faces. These stoppings are the only positive evidence you can rely on regardless of other evidence or the number of explosions that might have occurred before you were able to investigate the disaster. Again, the key to the direction of explosion movement is the stoppings across the entries, not the stoppings in crosscuts between the entries.



September 1982

HOLMES SAFETY ASSOCIATION MONTHLY SAFETY TOPIC

**WARNING**

**WARNING**

# **EXPLOSION**

We are rapidly approaching a particularly hazardous season of the year. Almost every major explosion that has occurred in a bituminous coal mine has been in the late fall, winter, or early spring months. No one seems to have clear-cut, logical answers on why coal mine explosions occur much more frequently during these particular months.

Of course, everyone who works in coal mines knows that we are now in the "drying out" season for our mines. In the spring and summer months, the outside air is about the same or of a higher temperature than that of our mine; therefore, the outside air during these months usually contains large amounts of moisture. As the warm air passes through the mine, it is cooled and loses moisture, which is deposited on the mine surfaces, and we have a situation commonly known as "sweating."

However, in the late fall, winter, and early spring seasons, cool air enters the mine and is warmed as it travels through the underground workings. The changing of the air from cold to warm causes it to "pick up" or gather moisture as it passes through the mine. The absorbing of the moisture by the warmed air as it travels through the mine causes the mine to "dry out."

Although we all agree that it is better to work in a dry area than a wet one, I think we also know that dry areas create greater explosion hazards than wet areas unless precautions are taken. Areas that are too wet to require rock-dusting during summer months often become bone dry during the winter months and require rock dusting. Often such rock dust had not been applied in the wet areas. Dust that was too wet to enter into an explosion during the summer season becomes bone dry, is easy to place in suspension and thus enters strongly into an explosion. Drying out of our mine surfaces during winter months, therefore, requires that we be very thorough in rock dusting all parts of the mine. Because of the drying out of a mine during the winter season, we know exactly why some explosions spread as rapidly and as far

# **MINE EXPLOSION SEASON**

as they do. Dry dust enters into the explosion easier and permits it to spread more rapidly; however, no one has a good, logical reason for why methane appears to accumulate more easily and in greater quantities during the winter months than in the summer months. With or without logical reasons, methane does seem to be liberated more freely and accumulate in larger quantities more frequently during the winter months.

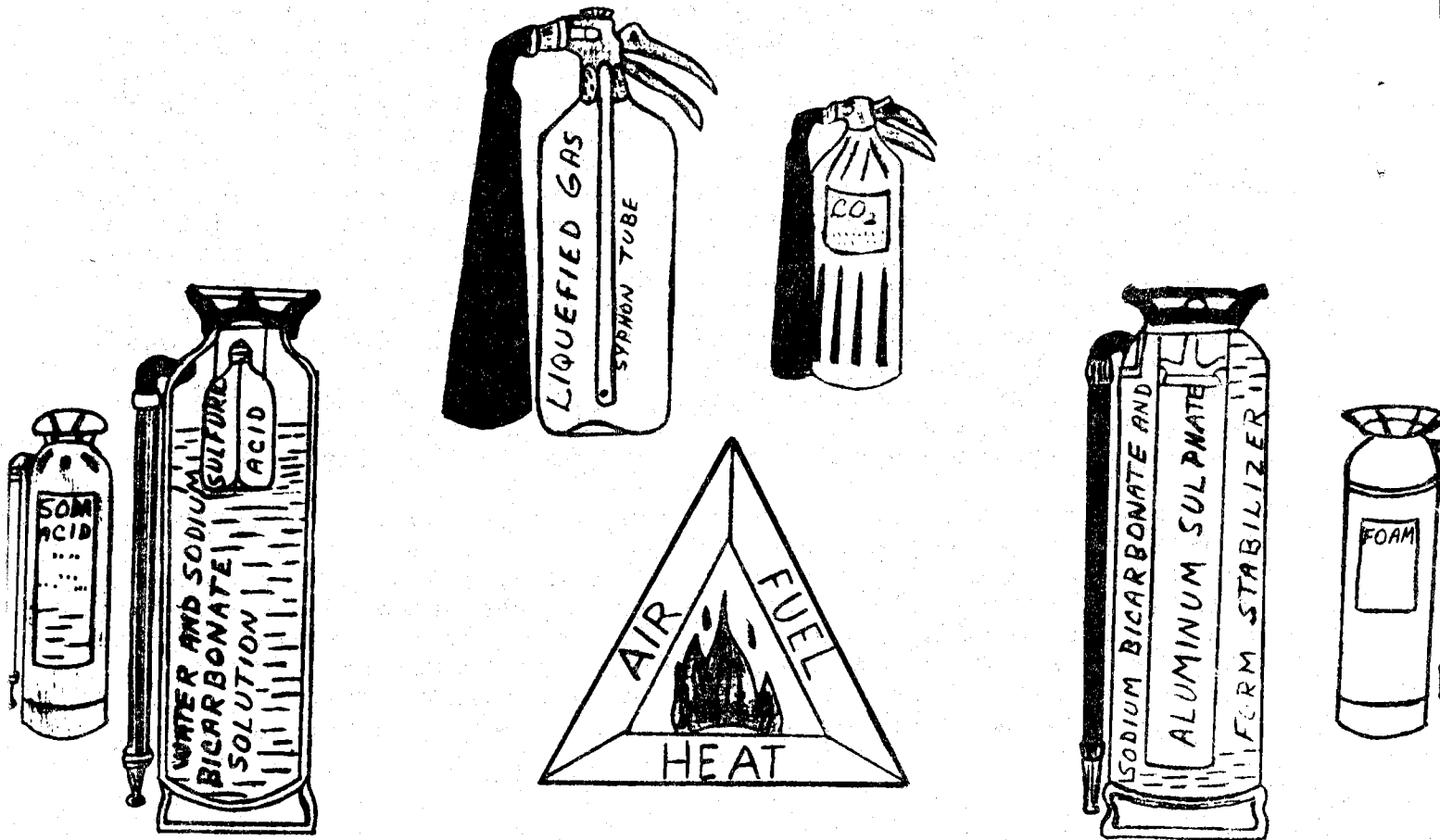
Investigators of the widespread explosions that have occurred in bituminous coal mines have found that the disasters resulted from the accumulation of large quantities of methane. They have found further that the gas was ignited by electrical equipment not maintained in permissible condition and that the explosion spread into other parts of the mine because coal dust entered into the explosion. Investigation of these explosions has shown further that the gas accumulated because of a ventilation interruption, and the gas was not detected even in the face areas. Now that we are in the mine-explosion season, it is absolutely necessary that we do all things that we know must be done to prevent such disasters. This means that we must at all times have adequate volumes of air at the working faces. Our gas testing must be thorough, complete, and regular. Areas that are difficult to keep reasonably free of coal dust and adequately rock dusted are the areas from the loading points to the working face, and these areas need special attention during the winter season.

Let's all resolve to make sure that we do not short circuit the air by hanging or tying up a check curtain or a line curtain. Let's keep our permanent stoppings up. Let's make all of our gas tests thoroughly and regularly. Let's keep our electrical face equipment in as good condition as possible, and let's try to eliminate dust accumulations and maintain our rock dusting to within reasonable distances of the faces. Let's not be responsible, even indirectly, for an injury, a death, or an explosion caused by a gas ignition.



# HOLMES SAFETY ASSOCIATION

# SAFETY TIPS

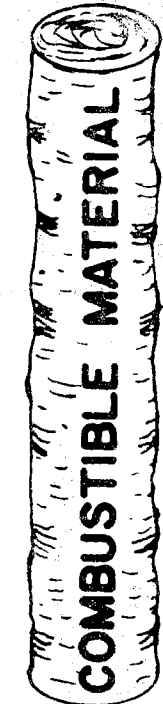


**KNOW**  
the Location of  
Fire Extinguishers

It  
Pays  
Off

# THE FOUR TYPES OF FIRES

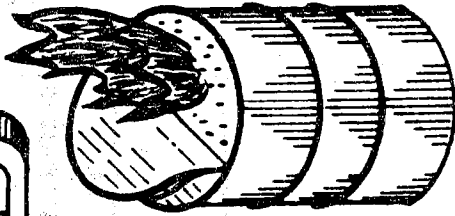
## A



- Timber
- Smoldering Trash
- Card Board Boxes
- Wooden Pallets
- Dry Rags
- Tires

## B

### FLAMMABLE LIQUID

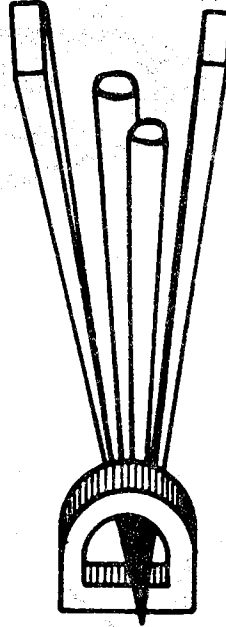


- Lubricating Oils
- Greases
- Fuel Oils
- Gasoline



### ELECTRICAL

- Electrical Motor
- Battery Equipment
- Battery Charging Station
- Junction Box
- Transformer
- Circuit Breaker



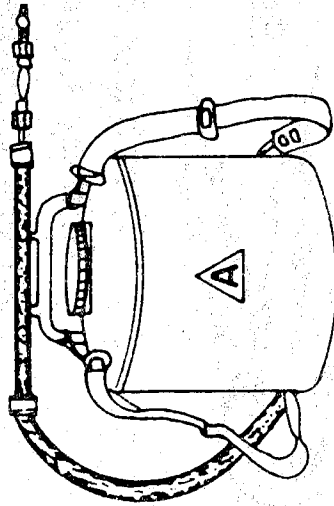
### COMBUSTIBLE METAL

- Sodium
- Titanium
- Zirconium
- Magnesium

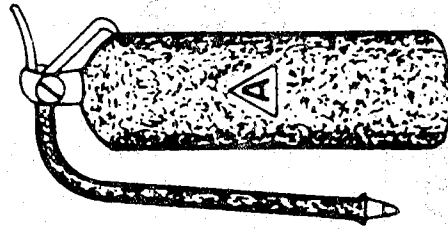
# COMMON TYPES OF FIRE EXTINGUISHERS

## WATER CARRIERS

For Class A Fires Only



PUMP TANK

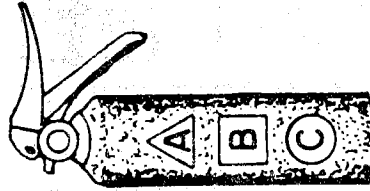


PRESSURIZED WATER

**Do Not Use Water on Class B and C Fires**

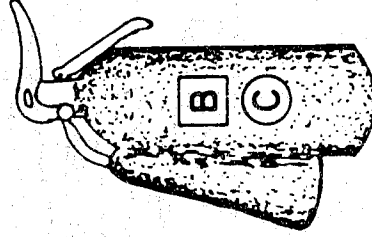
## MULTI-PURPOSE

For All Types of Fires EXCEPT Metal Fires



## CARBON DIOXIDE

For Class B or Class C Fires



Class A	Ordinary Combustibles
Class B	Grease and Other Flammable Liquids
Class C	Electrical Fires

### TIPS ON USE:

Stand close to the fire and aim at the base of the fire using a side-to-side sweeping motion to smother the fire. Stand by in case of reflash.



## HOLMES SAFETY ASSOCIATION MONTHLY SAFETY TOPIC

### Fire Prevention

Fire hazards are always present in mines even in wet mines; however, they are more pronounced during the Fall and Winter months when mines "dry out" due to surface climatic conditions. Now is the time to review work practices related to maintenance of electrical systems and electric equipment, proper blasting procedures, handling and use of lubricants, proper maintenance of frictional drives and other sources of ignition by friction. Removal of accumulations of loose coal, coal dust, discarded timbers and ties, and other combustible debris, and also ample applications of rock dust and good housekeeping practices will help materially toward preventing fires and will retard them if they occur. All supervisors and workers should determine the procedures they will follow in event a fire or explosion occurs, escape routes from their respective sections, and they should learn barricading procedures.

---

## **Practice What You Preach**

Because some of you are supervisors in direct contact with your workers, this article is aimed at you. You have the responsibility to see that the working conditions are safe, and that your employees work safely.

Along with this you must do your work safely also, and by all means--set a good example. The fact that you are supervisors means that you are more capable and responsible at your jobs, therefore, your workers will always watch you and try to imitate your example--good or bad. This is especially true when you have a new person starting, or a person coming into your department from some other department. Talk to these people as they come into your department, and explain to them what is expected of them in respect to their work and safety procedures. Put them at ease, so that when they have questions or special problems they will come to you for the proper answer or method of doing their job.

Put a special emphasis on all phases of safety. Maybe the job doesn't seem like it is particularly hazardous, but as a rule there are more injuries occurring on jobs that seem harmless than on the hazardous-type jobs. For instance, the worker on the ground slips and falls more frequently than the one working on a narrow beam 20 stories up in the air. Because the job is less hazardous the employee is more careless.

Let's not have any of these "Do as I say, not as I do" routines. Do things in the proper manner only. Don't reach into machinery yourself when you wouldn't let your employees do this. The same goes for standing on the top step of a ladder which is too short for the job, or checking for a gas leak with a match, and the many other things you might be tempted to do.

Remember that your employees look to you as their guide. You have a great influence on their well-being. They will remember you mostly for your mistakes and shortcomings. Therefore, always set the very best example you can, and your workers will appreciate and respect you for it.

\* \* \* \* \*

### Which of these are you?

Some Members keep their councils strong,  
While others join and just belong;  
Some dig right in, some serve with pride,  
Some go along just for the ride.  
Some volunteer to do their share,  
While some lay back and just don't care;  
On meeting nights some always show,  
While there are those who never go.  
Some always pay their dues ahead,  
Some get behind for months, instead.  
Some do their best, some build, some make,  
Some never give, but always take.  
Some drag, some pull, some don't, some do.  
CONSIDER, WHICH OF THESE ARE YOU?

\* \* \* \* \*

### Safety Endeavors

- Education - Related to safe work procedures and practices.
- Laws, Rules and Regulations - Promulgated by companies, insurance carriers, and State and Federal agencies which indicate safe operating patterns to follow.
- Supervision - Leadership in all phases of safety and its problems related to production.
- Cooperation - This is sometimes referred to as discipline. In reality it takes the combined efforts of all persons, individually and collectively, to assure success in safety endeavors.



I WAS IN A HURRY



SAFETY IS A MATTER OF  
**DECISION**



September 1982

## HOLMES SAFETY ASSOCIATION MONTHLY SAFETY TOPIC

### The Choice is Yours

There's a TV commercial that's been run recently where an auto mechanic says, "It's up to you. You can pay me now - or you can pay me later." It's a simple truth that everyone should recognize. A couple of dollars now for a badly needed oil filter - or several hundred later for valves, rings, bearings, and labor.

Think about preventive medicine. In our lifetime, it has virtually wiped out tetanus, diphtheria, smallpox - you name it. Now we guard against diseases that killed many of our ancestors like flies. For our health, we get shots when necessary and have regular medical checkups. If we choose not to do these things, we take the chance of catching a serious disease.

The same thing goes for SAFETY...with one big difference. It doesn't cost you a dime when you practice prevention. SAFETY pays you in preventing injury to yourself or your crew. Playing it safe pays in preventing lost time and lost income.

There's a catch in this Preventive Safety Procedure, however. It's true that it doesn't cost you a dime in money, but you still have to pay for it in terms of "Think." Think ahead; think how an accident can happen when you start into an unfamiliar area. Act only after you are alert to all the danger possibilities. And then act with caution and lots of it.

As odd as it may seem, there's a parallel between modern safety practices and an ancient Chinese custom still observed in Formosa today. Some Chinese doctors are paid to prevent illness in their patients. Payday stops for the doctor when the patient gets sick ...and payment does not begin again until the sufferer feels normal.

Parallel? Your company has set up SAFE JOB PROCEDURES planned to avoid accidents while spelling out in detail the best way - the SAFEST way - to do the job. These procedures are your "preventive medicine" to keep you safe on the job and out of harm's way. The only difference is that, unlike the doctor, if you don't keep your safety awareness constantly active, you lose big. You lose time, you lose money, and maybe even your ability to earn a living.

### *Thought*

All of us have two ends: an end to think with and an end to sit with. What we accomplish depends on which end we choose. Heads we win...Tails we lose.



September 1982

## HOLMES SAFETY ASSOCIATION MONTHLY SAFETY TOPIC

### Know Your Mine

Do you think you know your own mine? Let's take a quick test on some of the safety features in your mine and your area to determine if you do know your mine as well as you should. If you answer all the questions correctly you know your way around. If not, find out the correct answers. Some day your life may depend on it.

- Where is the nearest first aid kit located? Is there a stretcher there also?
- Where is the nearest phone to connect you with the surface in case of emergency? Do you know who to call and what to say?
- Where is the nearest fire extinguisher located?
- In case of emergency evacuation what is the primary escape route?
- If the primary escape route is blocked what is the secondary escape route?
- Where are the emergency supplies located? Is the emergency water located in the same place?
- Is your self rescuer on your belt? If not, where is it located?
- Who is in charge in case of an emergency in your work place?
- How do you get in touch with that person?

To know your mine you should be able to answer all these questions.  
Can You?





September 1982

## HOLMES SAFETY ASSOCIATION MONTHLY SAFETY TOPIC

### Care of Protective Equipment

In the past, much has been said about the availability and use of personal protective equipment, but little emphasis has been placed on the proper care of such equipment.

Consider two items that are basic protective equipment--safety glasses and hard hats. Safety-glass lenses are resistant to frontal impact and deserve particular care to prevent scratching, pitting, or etching. Lenses will occasionally get damaged even with the best of care, but many scratched and pitted lenses are due to improper personal care, such as placing them face down on the lenses, carrying them in a pocket along with other items, or dropping them on rough or hard surfaces. Marred lenses will reduce our ability to see, and scratches may weaken the lens.

Hard hats (safety caps) are designed and built according to U.S. Standards specifications and are able to withstand direct impact and protect the skull and neck bones from the force of an impact against the outer shell. The practice of cutting away parts of the hat or cap, of drilling holes through the shell for ventilation, or otherwise removing sections of the hat or cap tends to weaken the structure and thereby reduce its effectiveness. The suspension (head band) of a safety hat or cap is designed to keep the outer shell away from the head; consequently, it acts as a shock absorber between the outer shell and the head. The air space allows for cooling ventilation in hot weather. The suspension is adjustable and snug, yet comfortable fit should be maintained.

There may come a time when your welfare will depend on your protective equipment being in good condition - take care of it.

September 1982



## HOLMES SAFETY ASSOCIATION MONTHLY SAFETY TOPIC

### Lucky You

Accidents never happen to you. They always happen to "someone else". We get reports of how these "other people" get hurt and think that it's too bad, but you don't have to worry because accidents don't happen to you.

Why is it that you aren't involved in accidents? Is it because you're a safe worker at all times or is it just luck? When was the last time you really stopped for a minute and thought about yourself and your safety behavior on the job? Think about these questions.

Are you wearing your safety glasses and other protective equipment?

Are you walking through areas that are littered with loose muck or dust?

Are you operating a machine that doesn't have all the guards in place?

Do you sit down with your back to moving machinery?

Do you attempt to grease your equipment while it's operating?

Do you work on electrical equipment that isn't properly grounded?

Do you smoke in areas where no smoking signs are posted?

Do you use the handrails when going up and down stairs and ladders?

Have you had a close call or near miss lately?

If you answer yes to any of these questions I would say that you are lucky. "Other people" get hurt by not being aware of these hazards. Remember you can only be lucky for so long and then your luck runs out.

DON'T BE LUCKY, BE SAFE!



September 1982

## HOLMES SAFETY ASSOCIATION MONTHLY SAFETY TOPIC

### SLOGANS

It is a well-accepted fact that slogans and catch phrases make strong impressions on people and increase retention periods of the ideas presented. Here are a few good ones for your safety program:

- 1. Control power to enjoy its benefits.**
- 2. Check equipment - Check accidents.**
- 3. Inspection + correction = protection.**
- 4. It's not what you lift, but how you lift it that counts.**
- 5. Your work injury can hurt your entire family!**
- 6. You're not 'on the job' unless you work safely.**



September 1982

## HOLMES SAFETY ASSOCIATION MONTHLY SAFETY TOPIC

Code of Federal Regulations  
Subchapter N--Metal and Nonmetallic  
Open-Pit Mines  
Part 55.17--Illumination  
Part 55.18--Safety Programs

At this time, we should discuss the illumination or lighting standards required by the Federal Government in all open pit metal and non-metal mines. The standard set forth in 55.17 "Illumination" is for the purpose of promoting health and safety, and the prevention of accidents. Since the standard is mandatory, any failure to comply will result in the operator being issued a citation in accordance with section 8 of the Act.

### 55.17 Illumination

55.17-1 Illumination sufficient to provide safe working conditions shall be provided in and on all surface structures, paths, walkways, stairways, switch panels, loading and dumping sites, and work areas.

Our discussion or topic for today, is "Safety Programs", Section 55.18, Federal Code of Regulations. The standards or regulations required in this part or section are mandatory in each metal and non-metal mine which is subject to the Act. As stated in the Purpose and Scope of this part 55, the standards were adopted to promote health and safety, and to prevent accidents in each mine. Should the operator fail to comply with any of these standards, that operator will be cited in accordance with section 8 of the Act.

### 55.18 Safety Programs

55.18-1 (reserved)

55.18-2 (a) A competent person designated by the operator shall examine each working place at least once each shift for conditions which may adversely affect safety or health. The operator shall promptly initiate appropriate action to correct such conditions.

(b) A record that such examinations were conducted shall be kept by the operator for a period of one (1) year, and shall be made available for review by the Secretary or his authorized representative.

(c) In addition, conditions that may present an imminent danger which are noted by the person conducting the examination shall be brought to the immediate attention of the operator who shall with-

draw all person from the area affected (except persons referred to in section 104(c) of the Federal Mine Safety and Health Act of 1977) until the danger is abated.

55.18-3 through 55.18-5 (reserved)

55.18-6 New employees shall be indoctrinated in safety rules and safe work procedures.

55.18-7 through 55.18-8 (reserved)

55.18-9 When persons are working at the mine, a competent person designated by the mine operator shall be in attendance to take charge in case of an emergency.

55.18-10 Selected supervisors shall be trained in first aid. First aid training shall be made available to all interested employees.

55.18-11 (reserved)

55.18-12 Emergency telephone numbers shall be posted at appropriate telephones.

55.18-13 A suitable communication system shall be provided at the mine to obtain assistance in the event of an emergency.

55.18-14 Arrangements shall be made in advance for obtaining emergency medical assistance and transportation for injured persons.

55.18-15 through 55.18-19 (reserved)

55.18-20 No employee shall be assigned, or allowed, or be required to perform work alone in any area where hazardous conditions exist that would endanger him or her safety unless the person can communicate with others, can be heard, or can be seen.



September 1982

## HOLMES SAFETY ASSOCIATION MONTHLY SAFETY TOPIC

# IN A DAY'S TIME!

A LOT OF THINGS HAPPEN DURING A GIVEN PERIOD OF TIME IN THE BODY OF AN ADULT OF AVERAGE SIZE. HERE IS WHAT YOU ACCOMPLISH IN JUST 24 HOURS:

Your HEART beats 103,689 times.

You BREATHE 23,040 times.

You INHALE 438 cubic feet of air.

You EAT 3.25 pounds of food.

You DRINK 2.9 quarts of liquids.

You LOSE .87 pounds of waste.

You SPEAK 4,800 words.

You MOVE 750 muscles.

Your HAIR GROWS .01714 inch.

Your NAILS GROW .00046 inch.

You EXERCISE 7,000,000 brain cells, more or less.

THINK ABOUT IT--ALL THIS ACTIVITY--AND YOU DO IT AS EASILY AS FALLING OFF A LOG. BUT DON'T. ALL THIS ACTIVITY CAN BE STOPPED PERMANENTLY BY AN ACCIDENT THAT CAN HAPPEN IN A SPLIT SECOND.

ACCIDENTS ARE CAUSED BY PEOPLE. PEOPLE CAN AND MUST PREVENT THEM!

### THE HOLMES SAFETY ASSOCIATION CREED

Our work	SAFETY EDUCATION - Goes on,
Our purpose	ACCIDENT PREVENTION - Endures,
Our hope	TOTAL SAFETY AWARENESS - Still lives, and
Our dream	AN ACCIDENT FREE ENVIRONMENT - Will never die,
<u>SAFETY</u>	Is and Always will be <u>OUR FIRST CONSIDERATION!</u>

# ABSTRACT FROM FATAL ACCIDENT

September 1982

HOLMES SAFETY ASSOCIATION  
MONTHLY SAFETY TOPIC

## Roof Fall Accident



General Information: A fatal roof fall accident occurred while bolting a cut in the pillar split. The victim received a fatal injury when a portion of the roof fell crushing him against the mine floor and roof bolting machine.

Description of Accident: The continuous-miner operator explained that when he arrived at the No. 3 pillar split, the victim had already moved the roof-bolting machine into position for installing the first roof bolt. Therefore, the continuous-miner stated that he installed one metal jack and the victim began drilling and installing the first roof bolt while he got the second jack from the roof-bolting machine. He installed the second jack while the victim continued bolting. According to the continuous-miner operator, while he was turned toward the rear of the bolting machine getting a roof bolt for the victim, the roof fall occurred.

After realizing that the victim had been caught by the fall, he tried to manually lift the rock but was unable to do so. He summoned help and the victim was freed but had sustained fatal injuries.

Discussion: The face of the pillar split was not supported as required by the approved roof-control plan. However, temporary roof support (posts) were available.

The approved roof-control plan was not being complied with, in that the controls of the continuous miner had been advanced in by permanent roof support by approximately seven feet in the pillar split and roof bolts were being installed in the same split without adequate temporary roof supports, a violation of Section 75.200.

# ABSTRACT FROM FATAL ACCIDENT

September 1982

HOLMES SAFETY ASSOCIATION  
MONTHLY SAFETY TOPIC



## Drowning Accident

General Information: Two laborers drowned when the boat on which they were passengers swamped forcing them into the dredge pond.

The open-pit sand and gravel operation was mined by a diesel driven eight-inch dredge pump. Material was pumped to shore where it was screened, dried, and stockpiled.

The work boat involved in the accident was aluminum with foam flotation material contained in the three seats. The manufacturer's listed maximum load capacity was 510 pounds. The company had covered the floor of the boat with one-inch boards to protect it when tools and equipment were transported. This effectively reduced the load capacity an undeterminable amount. The boat was powered by a four-horsepower outboard motor which would weigh from 40 to 80 pounds depending on the amount of gasoline carried. Four people, whose total weight was estimated at 630 pounds were in the boat at the time of the accident.

The weather was cold, 35 degrees F., rainy, and a wind of approximately 20 mph was blowing. Witnesses stated that the water on the pond was "choppy." The pond was estimated to be about four acres in size. The men were provided with "Sterns," zip-on, vest-type life preservers. Additional clothing worn by the men because of the weather added an undetermined amount of weight to the overall weight in the boat.

Description of Accident: The victims had been working without incident. Later in the afternoon, a group of seven men helped to float the dredge to its work area at the far side of the dredge pond. After it had been secured, the plant foreman assigned one worker to operate the boat and take three of the employees from the dredge to the shore, then return and pick up the remaining three. The two victims had their life vests on but not secured. Approximately 75 yards from the dredge, witnesses stated that the boat began taking water over the bow and quickly swamped. The bow was submerged and the stern was partially out of the water. As the bow started into the water, the two victims jumped from the boat, feet first. As they entered the water, their life vests came off and neither man surfaced.

Cause of Accident: The accident was caused by loading the boat beyond its capacity. A contributing factor was the rough water of the pond. Failure on the part of the victims to securely fasten their life vests contributed to the severity of the accident.



# THE LAST WORD

## SEPTEMBER

### LABOR DAY

In honor of the wage earners of the Nation, the United States and Canada have set aside the first Monday in September as Labor Day, a legal holiday. The observance of this day grew out of an annual parade in New York City by the Knights of Labor on September 5 in the 1880's. Oregon, in 1887, was the first state to recognize Labor Day as a legal holiday, and other states quickly followed. On June 28, 1894, Congress passed a bill making the day a National holiday. All states in the Union now observe the holiday.

Organized labor has helped to bring about many humanitarian reforms. Laws have been passed regulating the conditions of employment of children, establishing maximum hours and minimum wages for men and women, requiring protection against industrial accidents and providing compensation for unemployment.

Protection against industrial accidents cannot be controlled by laws alone. A sincere desire of the worker is needed in accepting the rules of safety and to become educated in safety before accidents can be substantially reduced.

### "HARVEST"

September preeminently is the month of "Harvest." During this season, people have celebrated harvest festivals. Pagan people celebrated through religious ceremonies in times of peril and disaster, and also to give thanks for Nature's annual bounty which was gathered and stored for use during the long winter months ahead.

Our nationwide accident record for 1982 has not been good and much improvement is desired. During this harvest season, all of our know-how should be gathered along with added desire in improving our record to reduce accidents. Special attention should be given now to improve dust control and to re-rock dust areas which were seasonally wet during the summer months.

## FOLLOW SAFETY THRU in



-82-



Take a pint of ill humor - - -  
 Add one or more unfortunate incidents - - -  
 Set over a good fire - - -  
 When at boiling point, add a teaspoon of temper.  
 Baste from time to time with sarcasm - - -  
 Cook until the edges curl - - -  
 Add a handful of haughty words - - -  
 As the mixture curdles, stir furiously and then  
 Serve while sizzling!  
 Isn't THAT a great recipe for a terrible day???



Here's a Recipe For A Terrible Day

The Joseph A. Holmes Safety Association was founded in 1916 by 24 leading National organizations of the mining industries.

The Joseph A. Holmes Safety Association is named to commemorate the first director of the Bureau of Mines for his efforts in reducing accidents and illness throughout the mineral industries.

The following is the different award criteria:

Type "A" Awards - For Acts of Heroism

The awards are medals with Medal of Honor Certificate.

Type "A" - For Acts of Heroic Assistance

The awards are Certificates of Honor.

Type B-1 Awards - For Individual Workers

(40 years continuous work experience without injury that resulted in lost workdays)

The awards are Certificate of Honor, Gold Pins and Gold Decal.

Type B-2 Awards - For Individual Officials

(For record of group working under their supervision).

The awards are Certificate of Honor.

Type C Awards - For Safety Records

(For all segments of the mineral extractive industries, meeting adopted criteria)

The awards are Certificate of Honor.

Other Awards - For Individual Workers

(For 10, 20, or 30 years without injury resulting in lost workdays)

The awards are 30 years-Silver Pin and Decal, 20 years-Bronze Pin and Decal, 10 years-Decal bearing insignia.

Special Awards - For Small Operators

(Mine operators with 25 employees or less with outstanding safety records)

The awards are Certificate of Honor!

Contact: HSA Office

Department of Labor  
MSHA, Holmes Safety Association  
4800 Forbes Avenue, Room A268  
Pittsburgh, PA 15213

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