February 1980

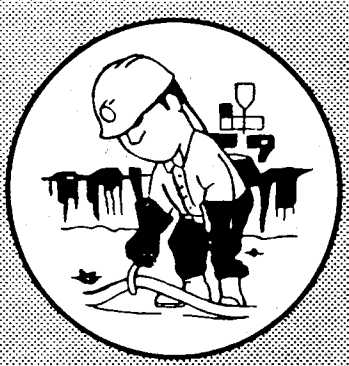
HOLMES SAFETY ASSOCIATION

PLURIBUS UNUM

SAFETY EFFICIENCY

MINERAL INDUSTRIES

BULLETIN



United States Department of Labor

MSHA

Mine Safety and Health Administration

CONTENTS

February 1980

HOLMES SAFETY ASSOCIATION MONTHLY SAFETY TOPIC

In Case of Fire
(On Section)

This week let's discuss a subject that is of prime interest to each of us. What will we do if a fire starts on our section--for example, in a cutting machine? Since the potential for a fire is always present because of the electrical conductors and the numerous combustible supplies that are necessary to perform our duties, it is important for us to thoroughly understand what can happen and to have a general prearranged plan in the event that a fire does start.

What can we do in case of fire? Do we yell for someone to do something? Do we grab the nearest fire extinguisher or sack of rock dust? Do we run like a Derby winner for the nearest exit?

Each of us realizes the hazards that an underground fire presents; however, as with any other job or duty, there are right and wrong ways to act in case of a fire.

In case of a fire, we do give the alarm, we do try to put out the fire, and we do everything possible to protect ourselves; however, we do not yell, we do not run, and we do not grab the first thing that is handy and throw it on the fire.

If we will remember the following thoughts and use them in the right way, it is possible that we can extinguish the fire, save our jobs, and maybe our lives:

1. In case of fire, should we try to put the fire out first? Yes, some of us will start to fight the fire promptly, but one of us must report it to the surface officials immediately.

Many fires have gotten out of hand because all people in the vicinity attempted to control them without having enough equipment or help. Therefore, if there are two or more of us in the area when a fire starts, one of us will report the fire to the surface, and the other will fight the fire. Do not lose your head, and do not run. Panic can only create confusion and may cause someone to be injured or lose their life.

(For use in underground mining operations)

If some of you are not immediately concerned with the fire, you should gather at some central location, for example, the loading point. By doing this, it can quickly be determined if everyone is accounted for and safe. Otherwise, one of us could be trapped behind the fire and smoke, and we would not know of it, which could prove fatal. When everyone is accounted for, then we can begin to plan our actions for combatting the fire.

2. Next we try to put out the fire. Most fires start small and can be extinguished easily if we do not waste time and do the job properly. One of us will remove all electrical power from the area. Each of us should know the location of the cutout switches for our area. (Foreman should be positive that each person is familiar with these locations.) Your self-rescuer should be used only for escape and not to fight the fire.

We will approach the fire from the intake side, and we must take tools and material for the erection of curtains. It is quite possible that we may have to start some distance back from the fire area with these curtains. We do not want the full ventilating current to pass through the fire area, so it will be necessary to short-circuit or divert a portion of the air directly to the return. There should be just enough air passing over the fire to keep back any smoke and to carry away any gases that might accumulate.

If the fire is large, we will probably have to set additional timbers outby the fire area, as the roof will be affected by the heat. Only after we have made ourselves safe can we begin the actual firefighting by using our fire extinguishers, rock dust, water, or sand. Let us hope we never have a fire; if we do, let us keep a cool head and act promptly.

SECTION FOREMAN--GOOD TIME TO CHECK SECTIONAL FIRE-FIGHTING EQUIPMENT.

February 1980

Session LXIX

HOLMES SAFETY ASSOCIATION MONTHLY SAFETY TOPIC

Federal Mine Safety and Health Act of 1977

Section 303(o)

Part 75.316 of the Code of Federal Regulations

Ventilation System and Methane and Dust Control Plan

Section 303(o) of the Act (Part 75.316 of the Code of Federal Regulations) stipulates that a ventilation system and methane and dust-control plan must be formulated for each coal mine. The plan must be submitted to and approved by the district manager in whose district the mine is located. The plan must show the type and location of mechanical ventilation equipment used in the mine, the quantity and velocity of air reaching each working face, and other information required by the district manager. The plan must be reviewed every 6 months.

In order to comply with this requirement, the operator must submit to the district manager the following:

A. An accurate up-to-date map of the coal mine at a scale of not more than 500 feet to the inch and supporting data which shall include:

1. The limits of the mine property including all known underground workings bordering the mine above and below and on adjacent properties.

2. The location of all oil and gas wells.

3. The location of all surface installed fans, type of fan, manufacturer's name, size of fan, and complete current operating specifications.

4. Location of all surface mine openings.

5. Any abnormal conditions or reservations, such as faults which may affect mine ventilation system design.

6. Projections of anticipated mine development for at least 1 year.

7. Direction and volume of air at each surface mine opening.

(For use in underground coal-mining operations)

8. All underground workings with the active working sections delineated.

9. Location of all stoppings, overcasts, undercasts, regulators, seals, and ventilating and man doors.

10. The volume of air entering and leaving each split, passing through the last open crosscut in each set of entries and rooms, at the intake end of each pillar line, and at each face.

11. The velocity of the air current, when such velocity is required at each working face, in all conveyor belt haulage entries, where trolley haulage systems are maintained, and where trolley wires and trolley feeder wires are installed.

12. Average entry height in conveyor belt and trolley haulage systems.

13. Areas which have been abandoned and areas from which pillars have been wholly or partially removed.

B. A ventilation system and methane and dust-control plan which shall show in detail:

1. The methane and dust-control practices along all haulageways and travelways, at all transfer points, at underground crushers and dumps, in all active working places, and in such other areas as may be required by such district manager.

2. All face-ventilation systems used and drawings illustrating system use, anticipated air quantities and velocities in the working place, and the use and application of the system under all anticipated mining conditions.

3. When auxiliary face ventilation systems are used, a detailed plan of such system, including equipment specifications, fan capacity, method of application, and methods to be used for maintaining continuous airflow to the working face in the event of auxiliary equipment failure.

4. The bleeder entry system, when such system is used, including:

a. Methods for maintaining the bleeder entries free of obstructions, such as roof falls and standing water.

b. Ventilating devices, such as regulators, stoppings, and bleeder connectors used to control air movement through the gob bleeder entries.

After receiving this information, the district manager, through his engineering staff, accepts or rejects the plan. You can be sure that the plan has had a meticulous review before it is finally approved. Strict compliance with an approved ventilation and dust-control plan should assure a well-ventilated mine with close control of methane liberations and respirable and explosive dusts.

February 1980

HOLMES SAFETY ASSOCIATION MONTHLY SAFETY TOPIC

You Must Be Right! (Roof Testing)

The No. 1 safety problem and menace to our lives as coal miners is falls of roof, face, and ribs, so we are constantly stressing the importance of using proper procedures and good judgment when examining the roof. Although an examination alone never held one ounce of roof, it is still our first step in protection against falls and must be properly performed.

As miners, we should ask ourselves the following three questions. If an affirmative answer cannot be truthfully given to each one, then you should give serious consideration to changing your attitude concerning roof testing.

1. Do you always make a thorough examination and never assume that the roof is good because it has been good in the past?

2. Do you always use the proper tool to test the roof and never improvise?

3. Do you keep a constant check on the roof for disturbances caused by pillar workings, drilling, shooting or blasting?

(For use in underground coal-mining operations)

February 1980

HOLMES SAFETY ASSOCIATION MONTHLY SAFETY TOPIC

The Three T's of Roof Control

The greatest danger in coal mining is, and always has been, coal or rock falling from the roof, rib, or face. Year after year, falling materials injure and kill far more miners than do mine fires, explosions, and flooding.

Everyone knows that blasting, electricity, or a fast-moving trip can be dangerous, but all these hazards have not produced as many deaths as have roof-fall injuries. One-half to two-thirds of all miners killed in underground coal mines met death from a fall of roof, face, or rib. For example, in one state alone, 30 miners lost their lives due to falls of roof, face, and ribs. During this same period, 466 nonfatal lost-time injuries were reported. Not a pretty record, to say the least.

Roof falls have no respect for anyone who works underground, whether it be a mine owner, superintendent, section boss, a new miner working his first shift, or even an old timer. Experience won't keep the roof off anyone's back. Mine supervisors and miners with several years of experience are being injured and killed. The average experience of miners killed by a fall of roof is about 22 years.

We must profit from the mistakes that have caused the most frequent and serious injuries in the past. These mistakes always involved disregarding one or more of the three "T's" for self-protection from loose roof, namely; Testing the roof, Taking down loose roof, or Timbering weak roof.

Experience has proven that failure to test the roof by sight, hearing, and by touch has been a major factor in numerous roof-fall injuries. In many cases, a casual visual examination was not enough to prevent an injury.

Probably the worst mistake being made, especially by experienced miners, is attempting to "out-guess" roof which is known to be loose. In numberous reported injuries, taking down or supporting the loose area was postponed on the assumption that the roof would hold a few minutes longer, until some small task was done. Our eyes, ears, and sense of touch can only tell us where the roof may be tight or loose, not how long it will stay in place.

(For use in underground coal-mining operations)

Systematic supports will eliminate numerous misjudgments of roof conditions. Unfortunately, the safety effectiveness of standard support methods is not fully appreciated. At least one-half of the fatalities from roof-fall injuries has been traced to the failure of not following standard roof-control plans.

I hope that each of you will remember the three "T's" of good roof-control practices; Testing, Taking down, and Timbering, and never fail to use them in performing your duties. We can and must do our part to reduce the number of roof-fall injuries. Let's each resolve not to be hurt by a roof fall.

February 1980

HOLMES SAFETY ASSOCIATION MONTHLY SAFETY TOPIC

Why Injuries?

Upon hearing of an injury, we usually ask the questions: What happened? What was the reason for the injury? Was it preventable? When the facts become known, we usually discover that this particular injury, in fact, most injuries, result from impulsive actions, bad work habits, and thoughtlessness. These factors are human traits which classifys nearly all accidents, and therefore injuries, as preventable.

An impulse is described as a force in our subconscious mind which produces sudden motion, causing an individual to perform such rash acts as venturing under unsupported roof or crossing in the path of moving equipment. But these impulses can be trained to be either safe or unsafe. If we can absorb into our subconscious mind the fear that we may be injured at any given time, our every action from then on will be to look carefully before placing ourselves in any dangerous position.

A habit is described as a condition of the mind and body by which we act naturally with great ease, comfort, and efficiency. Continued practice brings an involuntary tendency to continue these habits with more ease. Since safety depends entirely upon safe habits, it is up to all of us to see that no unsafe acts are committed when performing our various assigned work duties. This may be difficult when we analyze our habits and discover we have formed or cultivated unsafe work procedures. It takes constant corrective action to develop safe work habits. In order to build for future safety, we should continually correct unsafe habits until they are eliminated.

Finally this leaves thoughtlessness, which will be easily overcome if our impulses and habits are good. How often do we hear the phrase when an accident occurs: "Well, I didn't think," or "We thought the roof was good," or "I forgot to explain or outline the proper work procedures."

If we can come to work with our minds free from outside worries and our every move and thoughts on the correct and safe work procedures; then, bad work habits, impulsiveness, and thoughtlessness can be eliminated. All of these seem very simple,

(For use in all underground and surface mining operations)

but it is good to remember that the simple things of life are often the hardest to overcome.

In the final analysis, we must be honest with ourselves and our co-workers. We all want safety and security for ourselves and our families. We should be willing to change old unsafe habits, impulsive actions, and thoughtlessness. We not only have an individual responsibility, but we truly are responsible for those we work with. They are depending on you. Your work habits will influence their freedom from accidents and injury also. We should take a better look at our work methods and our safety rules, and learn how to recognize the hazards connected with our work. We learn by analyzing, discussing, and suggesting. Keeping an open mind on suggestions to improve safe work habits and putting them into practice will do much to reduce the possibility of injuries.

Remember! Bad habits, impulsiveness and thoughtlessness lead to injuries.

February 1980

HOLMES SAFETY ASSOCIATION MONTHLY SAFETY TOPIC

Our Loading Point

There is considerable activity at the loading point, and almost every member of the crew is involved one way or another. Let's consider some important points:

1. When changing out trips, always give and receive the proper signal, and see that all workers are in the clear.

2. When pushing a trip back under the loading point in a "pull and spot" situation, determine that the track is clear of miners and equipment before starting procedures.

3. No individual or piece of equipment should approach near the track while a trip is in motion.

4. Take extra precaution around a car-spotter rope; never work alongside or over a car-spotter rope. No one except authorized persons should travel inby a car spotter.

5. Work, such as uncoupling cars, placing slides, and cleaning up, should not be done while a shuttle car is unloading or mine cars are in motion.

6. Position the shuttle car to load a uniform mine car and to avoid hanging against the trip as it is moved.

7. Any workers approaching the loading point or track for any purpose should take note of their surroundings and stay well in the clear of moving traffic.

8. There should always be good coordination around the loading point.

9. Position the shuttle car with the boom in line with the crosscut rib while changing out the trip.

(For use in underground coal-mining operations)

ABSTRACT FROM FATAL ACCIDENT

February 1980

HOLMES SAFETY ASSOCIATION
MONTHLY SAFETY TOPIC

FATAL MATERIAL HANDLING (SUFFOCATION) ACCIDENT

General Information: A front-end-loader operator died of suffocation when he was engulfed by sand and gravel as he attempted to free a hang up in a hopper.

Sand and gravel were mined by a floating dredge and pumped to a stock pile where the material was picked up by a front-end loader and loaded into a conveyor-belt-feed hopper. The conveyor belt carried the material to a screening tower where it was washed, screened, and stored in truck load-out bins.

The conveyor-belt-feed hopper where the accident occurred was approximately 12-feet deep. The top opening was 10-feet wide and 22-feet long. The hopper tapered to approximately a 3-foot square section at the bottom. Due to heavy rains in the area, the plant had not been in operation for several days.

Description of Accident: The victim and a truck driver were instructed by the superintendent to start the plant. The truck driver started the conveyor belt but the material in the hopper which had been left full for several days, was hung up and would not feed out. The truck driver said that he and the victim went out on the bridged material to prod the material loose. He also said that all employees had been warned against this practice many times by the superintendent. The material collapsed and the victim was immediately engulfed. The truck driver managed to grab the crossbeam in the center of the hopper and was covered up to his waist.

The truck driver's cries for help were heard by another truck driver who got a rope and tied it around him. The other truck driver stopped the conveyor belt and could not find the victim as he was already covered with material. The other truck driver called the mine office by radio and the dispatcher called the rescue unit.

The unit arrived on the scene within 5 minutes. The truck driver was rescued immediately but, due to the amount of material to be moved, it took 1 hour to recover the victim. He was pronounced dead at the scene, from suffocation, by the county coroner.

Cause of Accident: The accident was caused by the victim placing himself in a dangerous position by entering the hopper on top of bridged material. This was in direct violation of company rules. A contributing factor was failure of the company to provide a safety belt and line at the site.

(For use in surface mining operations - noncoal)

ABSTRACT FROM FATAL ACCIDENT

February 1980

HOLMES SAFETY ASSOCIATION
MONTHLY SAFETY TOPIC

FATAL SURFACE EXPLOSIVES ACCIDENT

General Information: An explosives accident occurred at the construction site of the extension to the refuse dump. The accident resulted in the death of a superintendent, and serious injuries to a foreman and a general laborer, all of whom were officials and/or employees of the company who was constructing the extension to the refuse dump.

Description of Accident: The victim and the foreman and the general laborer went to the drill bench to prepare the first six holes for blasting. These holes had been drilled on the previous day and water had accumulated in them.

According to the general laborer, separate charges of explosives (1 to 2 sticks of 1¼" x 8" regular gel, 60 percent dynamite with 3-to 4-inch safety fuses and caps) had been prepared to blast the water from the holes. The victim had used 13 of the "charges" and about 2:45 p.m., he was attempting to ignite the fuse of the 14th "charge" with a cigarette when it apparently exploded in his hand.

The victim was fatally injured and the general laborer and foreman who were approximately 30-to-40 feet away, were seriously injured by the effects of the blast. The mobile-drill operator, about 60 feet away, heard the explosion and saw the general laborer and foreman run past the drill. He turned and observed the fatally injured victim lying in the roadway to the drill bench and then went to aid the general laborer and foreman. The two injured men were transported by private vehicles to the clinic, where injuries were diagnosed as a contused lung and lacerated neck to the foreman, and the general laborer had lacerations of the head, neck, face, and right arm, and also injuries to the right eye and possible damages to his right ear. The victim was transported to the hospital, where he was pronounced dead on arrival.

The victim was a certified blaster and was also a certified surface foreman.

According to the general laborer, the victim had experienced difficulty in igniting the safety fuses and he instructed the general laborer to cut about one-half inch from the ends of the fuses to expose a fresh powder surface to the ignition source (lighted cigarette).

(For use in surface mining operations)

Eighteen "charged" shots of explosives were found on the drill bench with safety fuses that ranged from 3-to-4 inches in length. One to two sticks of 60 percent regular gel dynamite with a small rock taped to them were being used to blast water from the drill holes prior to preparing them for regular blasting.

The drill operator, who was located approximately 60 feet from the blasting area, stated that no warning was given prior to blasting any of the "water shots".

Cause of Accident: The accident and resultant fatality and injuries occurred because management used explosives in an extremely hazardous manner.

February 1980

HOLMES SAFETY ASSOCIATION MONTHLY SAFETY TOPIC

Portable Electric Tools

Portable electric tools make our work a lot easier for us. In fact, some of us use such tools not only here on the job but in our home workshops as well because they help us do a faster, better job. As with other kinds of equipment though, we have to observe certain precautions if we are going to use the tools with safety.

A portable electric tool consists of a housing (or frame) inside of which is an electric motor with an outside switch, a cord, and a tool chuck or head on the end of the motor shaft. A portable electric tool is a piece of rotating machinery, and this fact alone introduces some hazards. The greatest hazard is the possibility of electric shock. If a breakdown occurs in the insulation of the current-carrying parts of the tool, the full power-line voltage will be placed on the frame. The current may then pass from the frame through the body of the operator, possibly causing a fatal electric shock.

The hazard of electric shock is easily overcome by grounding the housing or frame of the portable electric tool. Then, if a breakdown in the insulation occurs inside the tool, the current will be "shunted" from the housing or frame to the ground and will not pass through the body of the operator.

Grounding is simple. Portable electric tools are now generally made with a three-conductor cord which terminates in a three-prong plug. Two conductors of this cord are the two sides of the electric circuit. The third conductor is connected to the inside of the frame or housing of the tool. In other cases, the green-grounded conductor is brought out of the cord ahead of a two-prong plug. A clip can be put on this grounding conductor so that it can be attached to an external grounded object.

If a portable electric tool has a three-prong plug and a three-wire receptacle is handy, grounding is automatically accomplished when the plug is inserted in the receptacle.

In the case of only two-wire receptacles, grounding can be accomplished by use of a separate grounding cord with a substantial clip on each end--one end to be clipped on the

third conductor coming from the tool and the other end to be clipped on the "ground". It is important that the ground conductor be securely attached to the "ground". Generally, it is safe to use cold water pipes or faucets, radiators, metallic power conduits, or a good driven ground.

A good tool deserves good care. Portable electric tools are easy to inspect, and they do not need much repairing. However, like other tools, they are subject to wear and, as defects develop, repair work should be handled promptly.

Portable electric tools do a lot of work for us. Let's treat them well and use them safely!

MSHA[1]
State[2]
Management[3]

Report of Holmes Safety Association Safety Chapters

Established October through December 1979

U = Underground

S = Surface

P = Plant

Chapter	*Mine*	*Company*	*Product*	*U*	*S*	*P*	*Member-ship*	*Charter No.*	*City*	*County*	*State*	*Established By*	*Date*	*Council Affiliation*
Kayenta	Kayenta	Peabody Coal Co.	coal		X		508	2787	Kayenta	Navajo	AZ	[1]WH Hoover [3]JR Correll	11/1	Nonaffiliated
Bowers Const.	Bowers Const.	Howard Bowers Cont.			X		40	2788	Claring-ton	Monroe	OH	[1]BA Gibbs	11/8	Nonaffiliated
Church Rock 1 East	Church Rock 1 East	Kerr-McGee Nuclear Corp.	uranium	X			100	2789	Church Rock	McKinley	NM	[3]A Galbreath	11/21	Nonaffiliated
McKinley	McKin-ley	Pittsburg & Midway Coal Co.	coal		X		350	2790	Gallup	McKinley	NM	[1]MD Delridge	11/19	Nonaffiliated
Arizona Office of Mine In-spectors		Arizona Office of Mine Inspectors	covers all mining opera-tions	X	X	X	24	2791	Phoenix	Maricope	AZ	[1]WH Hoover	12/3	Nonaffiliated
Calvert& Young	Calvert & Young-blood	Calvert & Youngblood Coal Co.	coal		X		45	2792	County-line	Blount	AL	[1]JH Johnson [3]A Burgett	12/12	Nonaffiliated
Miner-1 Training Facility	Miner-1 Training Facility	Miner-1 Training Facility	coal	X			5	2793	Claring-ton	Monroe	OH	[1]BA Gibbs	12/14	Nonaffiliated

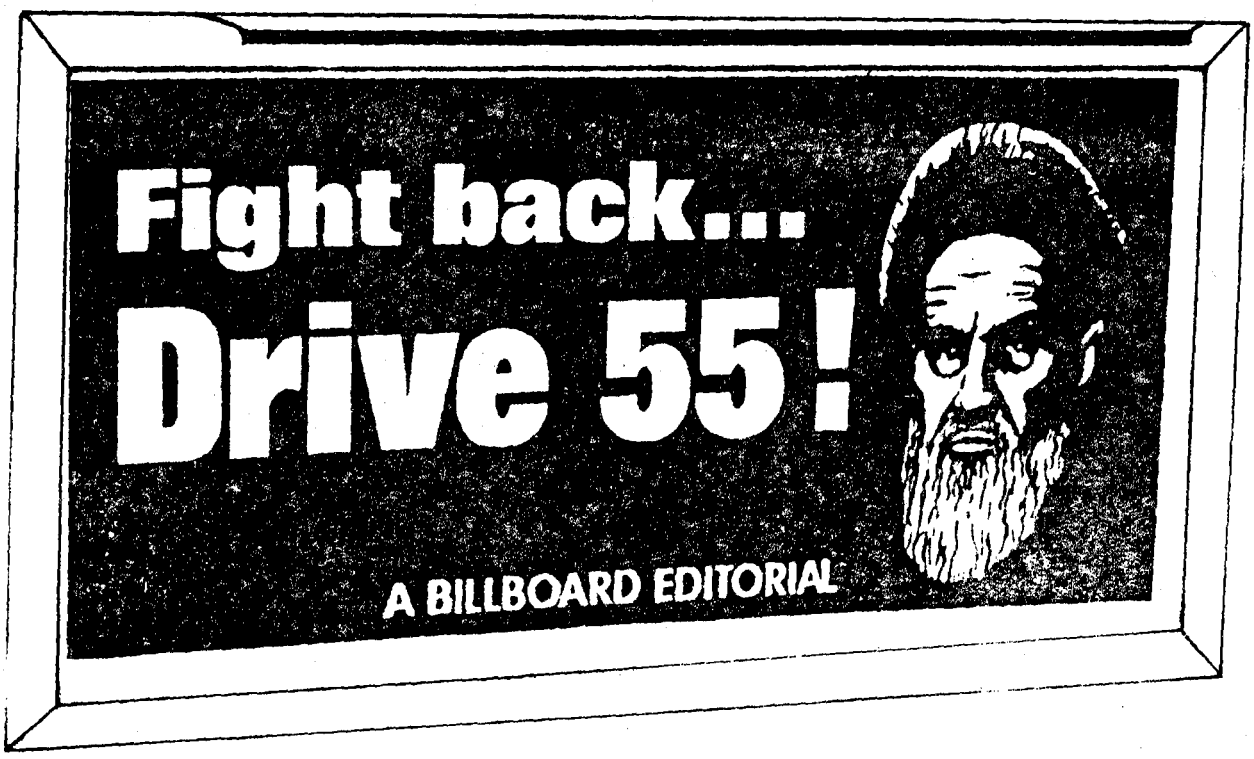
Total chapters established during the fourth quarter of 1979 . . . . . 7 - Membership - 1,072

Total chapters nationwide . . . . . 1,428 - Membership - 208,325

February 1980

February 1980

Your Safety



FEBRUARY

February is the birth month of two of our great presidents.

Day before yesterday we recognized the birth of a great leader, George Washington. He brought this great country of ours through the peril and hardship of the Revolutionary War, winning that war and going on to become our first president. This great accomplishment, history will tell us, could not have been possible without thorough and meticulous planning.

Thorough and meticulous planning is also necessary in the promotion of health and safety in the mineral industries of our nation. Correct planning for safety to conserve manpower will help us to win our wars (cold or hot) and prevent peril and hardship in the industrial workshops of this great land of ours. Keep strong by working safe.

* U.S. GOVERNMENT PRINTING OFFICE: 1980-O-677-182/5

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United States Department of Labor
MSHA
Mine Safety and Health Administration

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.)

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(Signature)

_____
(Telephone No.)

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(Title)

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