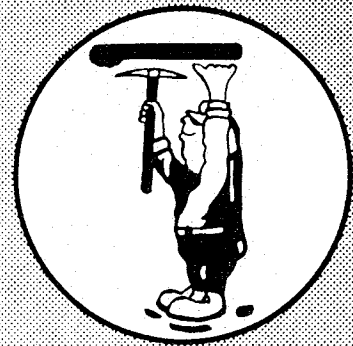
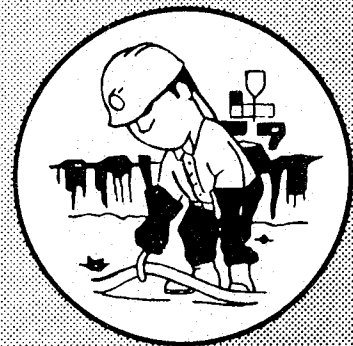


SEPTEMBER 1981



BULLETIN

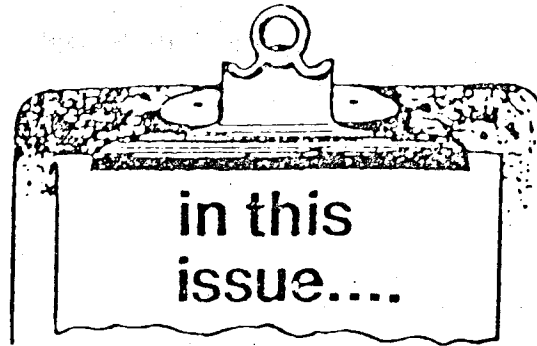


United States Department of Labor

MSHA

Mine Safety and Health Administration

HOLMES SAFETY ASSOCIATION



September 1981

- 1 1. Letter, "Invitation to Second International Symposium"
- 2 2. Fatalgram, "Coal Mine Fatalities January-June 1981"
- 3 3. Fatalgram, "Metal/Nonmetal" *Welding*
- 4 4. Safety Topic, "Machine Guarding"
- 5 5. Abstract, "Machinery Accident"
- 6 6. Abstract, "Belt-Conveyor Accident"
- 7 7. Safety Topics, "Alibis/Part 75.323--Countersigning of Reports"
- 8 8. Safety Topic, "Double Check"
- 9 9. Safety Topics, "You Have a Choice/'Welcome Aboard'"
- 10 10. Safety Topic, "Don't Take Chances"
- 11 11. Safety Topic, "Why Hurry?"
- 12 12. Safety Topic, "Safe Truck Operations"
- 13 13. Poster, "Load Them Out"
- 14 14. Safety Topic, "A Pledge"
15. Meeting Report Form (chapters only)



II INTERNATIONAL SYMPOSIUM: TRAINING IN THE PREVENTION OF OCCUPATIONAL RISKS IN THE MINING INDUSTRY

November 8-13, 1981

Washington, D.C.

Planning Committee

Arthur Baker, III
University of Nevada-Reno

George R. Bockosh
U.S. Bureau of Mines

Jerrold G. Campbell
National Mine Service

Valentine Cullen, III
Mine Safety and Health Administration

Janet D. Earhart
Mine Safety and Health Administration

John H. Gray
Island Creek Coal Company

A. Bennett Hill
International Union of Operating Engineers

Cherie A. Hutchison
Mine Safety and Health Administration

Murray Jacobson
Mine Safety and Health Administration

Gerald H. Johnson
Anamax Mining Company

Robert H. Kerner
American Electric Fuel Supply

Patricia C. Kuhn
Mine Safety and Health Administration

Frank J. Laird, Jr.
Anaconda Company

Joseph A. Lamonica
Mine Safety and Health Administration

Ray Light
Mine Safety Appliances Company

Robert J. Lohr
Bethlehem Steel Corporation

J. Richard Lucas
Virginia Polytechnic Institute

Robert A. Malone
Kennecott Minerals

Zdenek Matusek
Scientific Coal Research Institute
(Ostrava-Radvanice, Czechoslovakia)

Fazlollah L. Misaqi
National Mine Health and Safety Academy

George H. Pudlo
Consolidation Coal Company

Raja V. Ramani
Pennsylvania State University

Samuel R. Sappo
Mine Safety and Health Administration

Thomas L. Savage
West Virginia University

Joe Taylor
United Mine Workers of America

Harry Tuggle
United Steelworkers of America

Janice W. Tyler
Mine Safety and Health Administration

Thomas Utley
Peabody Coal Company

Alan Wampler
National Photographic Laboratory

W. Vernon Weaver
Mine Safety and Health Administration

Alan Weed
Freeman United Coal Mining Company

Frank H. Zimmerman
National Gypsum Company

Dear H.S.A. Chapter Member:

On behalf of the Planning Committee, I cordially invite you to attend the II International Symposium on Training in the Prevention of Occupational Risks in the Mining Industry, November 9-13, 1981, at the Shoreham Hotel in Washington, D.C.

Excellent papers on mining health and safety/education and training/accident prevention will be presented by representatives from the United Kingdom, Canada, Federal Republic of Germany, Czechoslovakia, U.S.S.R., Taiwan, South Africa, Poland, and the United States. In addition, an exposition, film and poster festival, welcoming reception, banquet, spouses program, and Eastern Post-Symposium Field Trip will be held.

If you desire more information regarding this Symposium, please write to the following address for a copy of the Preliminary Program:

Mine Safety Training
Symposium Headquarters
Suite 700, 1629 K Street, N.W.
Washington, DC 20006, U.S.A.

We look forward to seeing you in November!

Sincerely,


Samuel R. Sappo
Chairman

Coal Mine Fatalities January-June 1981



U.S. Department of Labor
Mine Safety and Health Administration

Raymond J. Donovan, Secretary

Thomas J. Shepich
Acting Assistant Secretary
for Mine Safety and Health

**Coal Mine Fatalities in the
first six months of 1981:
June Fatalities: 17**

**Underground: Roof Fall 6, Electrical 2,
Haulage 1, Machinery 1, Other 3**
Surface: Haulage 1, Other 3

(Compared with 1980: 57)

Coal Mine Fatalities for Jan-June 1981
and Jan-June 1980 by State:

	1981	1980	1981	1980
Colorado	17	2	Ohio	2
Kentucky	14	13	Tennessee	2
West Virginia	8	14	Utah	2
Pennsylvania (Bit.)	6	4	Virginia	2
Alabama	4	2	Wyoming	1
Pennsylvania (Anth.)	2	1	Illinois	0
Missouri	2	0		

Fatalities for Jan-June 1981 by Occupation, Location and Cause:

OCCUPATION

Supervisor	12	Truck Driver	3
Superintendent	1	Mechanic	3
Roof Bolter/Helper	8	Laborer	2
Shuttle Car Operator	4	Welder	2
Loading Machine Operator/Helper	1	Motorman	1
Continuous Mine Operator/Helper	6	Maintenance Man	1
Loading Shovel Operator/Oiler	1	Drill Operator	1
Electrician/Helper	3	Rockman	1
Front End Loader Operator	1	Jack Setter	2
Belt Man/Conveyor Man	3	Timberman	2
Scoop Operator	1	Miner Helper (Trainee)	1
Brattice Man	2		

LOCATION

LOCATION	CAUSE
Underground Mine	43
Strip and Auger Mine	12
Surface Area of UG Mine	4
Preparation Plant	3
Roof and Rib Fall	15
Haulage	15
Machinery	4
Electrical	3
Other	25

Fatalgram



U.S. Department of Labor
Mine Safety and Health Administration
Metal and Nonmetal Mine Safety and Health Activity

date July 31, 1981

A 39-YEAR-OLD MILLWRIGHT-WELDER WAS KILLED WHEN A DRUM EXPLODED AS HE STARTED TO CUT THE END OFF WITH A TORCH. THE VICTIM HAD 16½ YEARS OF MINING EXPERIENCE, ALL AT THIS OPERATION, AND ALL BUT 2 YEARS OF IT IN HIS CURRENT JOB AS A MILLWRIGHT-WELDER.

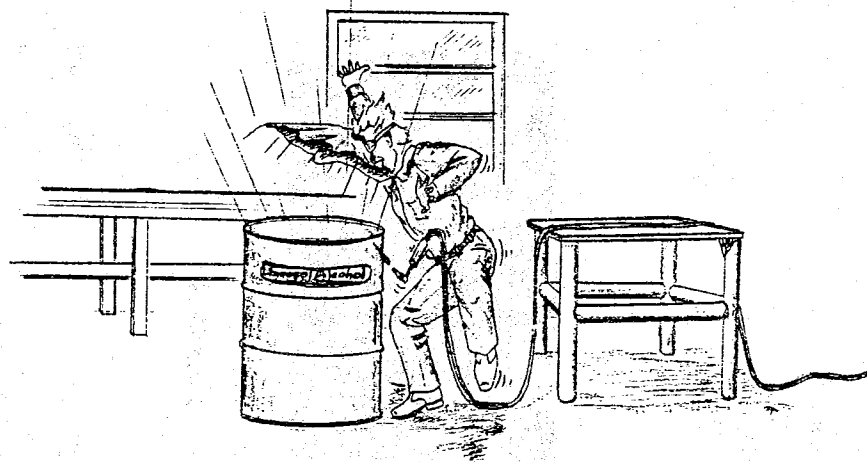
THE DRUM HAD CONTAINED ALCOHOL. THE END WAS BEING REMOVED TO PREPARE THE DRUM FOR PERSONAL USE BY A FRIEND OF THE WELDER. TWO OF THE VICTIM'S CO-WORKERS ADVISED HIM NOT TO TRY CUTTING THE DRUM WITH THE TORCH, BUT HE THOUGHT IT HAD BEEN SUFFICIENTLY WASHED OUT. HOWEVER, HE DID NOT WASH IT OUT HIMSELF.

THE INVESTIGATION ALSO BROUGHT OUT THE FACT THAT 3 OUT OF 4 WELDERS AT THIS OPERATION WERE UNABLE TO DESCRIBE THE PROPER PROCEDURES FOR CUTTING OR WELDING SAFELY CONTAINERS WHICH HAD CONTAINED FLAMMABLE SUBSTANCES. IT ALSO INDICATED THAT, AT LEAST NOMINALLY, THE VICTIM HAD RECEIVED THE SAFETY TRAINING REQUIRED BY THE REGULATIONS OF PART 48, CFR 30.

RECOMMENDATION:

BEFORE ANY HEAT IS APPLIED TO CONTAINERS WHICH HAVE CONTAINED FLAMMABLE SUBSTANCES, THEY SHALL BE DRAINED, VENTILATED, THOROUGHLY CLEANED, AND FILLED WITH EITHER AN INERT GAS, OR WHERE COMPATIBLE, FILLED WITH WATER.

56.4-35 (MANDATORY)



81-033

DEATH TOLL Period covered: January through April

Year	Underground	Surface	Mills	Total
1980	7	16	9	32
1981	9	7	6	22

**DO YOUR PART TO KEEP THE TOLL DOWN!
SAFETY IS EVERYBODY'S BUSINESS**



HOLMES SAFETY ASSOCIATION MONTHLY SAFETY TOPIC

Machine Guarding

Many injuries that are reported involve employees being caught in, struck by, or pinched by machines on which they work. This includes both machine operators and maintenance personnel. Some of these accidents can be avoided if we become aware of the guards and precautions needed around machinery.

Most machine designs include guarding of the moving parts so that we cannot get caught by these parts. It also includes proper guard rails and toe boards in positions where we may fall into the machines. Wearing the proper clothing around machines is an important factor. Loose sleeves, pant cuffs, or shirt tails can be hazards around moving parts of any machine. The use of safety hats, glasses, shoes, belts, and lines are also important in positions where they are required. We sometimes overload the guards that come between us and the machine that can keep us from becoming another injury statistic.

A good practice is to check your machine when you go on shift to see that all guards are in place and operative. Some of the places that should be checked are:

1. Guards placed around moving parts, such as pulleys, flywheels, gears, sprockets, chains, belts, keys, collars, set screws, couplings, shafts, and clutches. These guards must be in place and in correct adjustment to come between you and the moving part.
2. Guard rails and toe boards placed on catwalks, platforms, scaffolds, balconies, and other places where falls may take place. These rails and toeboards must be sufficiently strong and properly placed and maintained to provide the required protection.
3. Protection is also required where falling materials may be present, such as overhead belts, tramways, buckets, etc.
4. Operators should make a special check of the guards if any maintenance has been performed on the machine to insure that all guards have been replaced in the proper manner.

CHECK YOUR AREA, ARE ALL THE GUARDS IN PLACE?

(For use in all mining operations)

ABSTRACT FROM FATAL ACCIDENT

September 1981

HOLMES SAFETY ASSOCIATION
MONTHLY SAFETY TOPIC

Machinery Accident



General Information: A plant laborer was fatally injured when he entered or fell into the feed area of the tub of a log washer which was being restarted. He had a total of 7 days experience. The pit and plant was a sand and gravel mining and sizing operation providing raw material to the construction industry.

Sand and gravel was mined by dragline and transported to the plant site by bottom-dump-type trucks. This plant feed was split at a scalping screen system into waste, sand, and rock fractions. The latter was cleaned of clays, silts, and debris by a 36-inch McLanahan log washer having twin counter rotating paddle-shaft assemblies geared to 29 r.p.m. through a 440-volt, 75 horsepower electric motor-powered reduction unit. Water level within the log washer's tub was maintained by a screen protected weir box welded to the side of the tub adjacent to the feed point.

Cleaning of the screen was performed by striking its downstream surface with a hammer. Cleaning frequency was dictated by day-to-day variation in plant feed tramp levels. The cleaning procedure as outlined did not place a person in a hazardous position.

Description of Accident: An abnormal amount of plant feed tramp was being experienced and the plant operator stated that he had decided to stop the plant feed conveyor and the log washer in order to instruct the laborer (victim) on the method of cleaning the weir box screen. After demonstrating the procedure and advising the victim that he was immediately going to restart the equipment, the plant operator ascended the stairs to the control room. He stated that he heard the victim pounding on the screen and observed him doing so as he climbed the stairs. He entered the control room, energized the feed conveyor and log washer, and then returned to the head of the access stairway to view the log washer operation. He observed the body of the victim entangled in the east paddle assembly and ran to the controls and stopped the log washer.

The investigation could not determine how the victim came into contact with the log washer paddle system due to lack of eye-witnesses. It was assumed that he had climbed onto the structure and then fell or was pulled into the tub by the rotating paddles.

Cause of Accident: The direct cause was the victim's act of putting himself in a position from which he could come into contact with moving log washer internal parts. Contributing factors were the lack of experience of the victim, failure of the startup procedure to guarantee that all persons were clear of moving parts, and the lack of a guard on the washer's exposed internal rotating parts.

(For use in all mining operations)

ABSTRACT FROM FATAL ACCIDENT

September 1981

HOLMES SAFETY ASSOCIATION
MONTHLY SAFETY TOPIC



Belt-Conveyor Accident

General Information: A belt-conveyor accident occurred on the surface of an underground coal mine resulting in the death of a inside laborer. The accident occurred while the victim was lying on the bottom of the overland conveyor belt cleaning coal from around the tail roller. The conveyor belt was started, causing the victim to be crushed between the conveyor belt and tail roller.

Description of Accident: On the crew's arrival at the tailpiece, the victim and a coworker proceeded to shovel coal from around the tailpiece. The lead-belt mechanic informed the victim that when they were finished, someone should come to the top of the hill and flag that it was safe to start the belt. At this time, the lead-belt mechanic and another mechanic traveled to the belt drive, a distance of approximately 810 feet, to check on a reported coal spillage. Upon their arrival, they conversed with the mine supervisor about the condition of the belt tailpiece. The lead-belt mechanic said he observed that the switch for the overland belt was in the "on" position and he turned it off. He was also told to start the stacker belt, a belt independent from the overland belt. After the stacker belt had been running for about a minute, the shift supervisor started the overland belt. It ran for about 15 seconds when the drive roller began to slip in the belt causing the slippage switch to deenergize the belt conveyor.

The eyewitnesses said they had begun to clean out the coal when the victim crawled between the top and bottom belts to rake out some coal. Suddenly, without warning, the belt started, crushing the victim between the belt and tail roller.

Findings of Fact:

1. The entire length of the overland belt was not visible from the control switch. A positive audible or visible warning system had not been installed, a violation of Section 77.1607(bb).
2. The guards for the tailpiece were not securely in place while the belt was operated, a violation of Section 77.400(d). However, the guards had been removed to clean the tailpiece and it was not anticipated that the belt would be started.

Conclusions: The accident occurred because:

1. The victim placed himself in a precarious position.
2. An audible warning device was not installed to be sounded before the belt was started.
3. The belt conveyor was started before the tailpiece area was checked to make sure all persons were in the clear.

(For use in all mining operations)



September 1981

HOLMES SAFETY ASSOCIATION MONTHLY SAFETY TOPIC

Alibis

In looking over our accident records, it appears that a lot of serious injuries occur every year when workers get caught in machines. Considering all the attention that has been given to guarding, we need to examine the causes of these accidents.

Workers get hurt because they do not seem to believe that an accident can happen to them. It is the same way with guards. Most workers caught in machinery left the guards off, or took them off, or misused them in one way or another. They did not believe they would get caught. When an accident occurs as a result of leaving a guard off, we are given many alibis; such as, "The guard slowed me down," "I couldn't get the guard back on," or "I wanted to try it out first." A favorite of mechanics is, "I didn't have time to put the guard back right then. I had to go to another job." Sometimes the alibi is, "I don't have time to look for the guard bolts now, I'll just wire it on and bolt it later." Often, later never comes. Probably the most common alibi is, "I just forgot." This alibi means one thing for sure, this operator was not thinking of safety on the job.

All of these alibis come from accident reports of injuries resulting from the misuse of guards. This is the excuse offered to explain an accident. However, it would be hard to live with this excuse knowing because of your own negligence a coworker lost a hand.

Naturally, a machine should be put back into operation as quickly as possible, but only within the time required to make it function properly and safely. No repair job is complete until guards and other safety devices have been replaced and are in first class condition.

HOLMES SAFETY ASSOCIATION MONTHLY SAFETY TOPIC

Excerpts From Code of Federal Regulations

Part 75.323--Countersigning of Reports

The mine supervisor shall read and countersign promptly the daily reports of the preshift examiner and assistant mine supervisor, and the supervisor shall read and countersign promptly the weekly report covering the examinations for hazardous conditions. Where such reports disclose hazardous conditions, they shall be corrected promptly. If such conditions create an imminent danger, the operator shall withdraw all persons from, or prevent any person from entering, as the case may be, the area affected by such conditions, except those persons referred to in Section 104(d) of the Act, until such danger is abated. The mine superintendent or assistant superintendent of the mine shall also read and countersign the daily and weekly reports of such persons.

September 1981



HOLMES SAFETY ASSOCIATION MONTHLY SAFETY TOPIC

Double Check

Once a famous lawyer was asked how he repeatedly won favorable verdicts. The attorney replied:

"Well, I always make my juries understand the case. First, I tell them what I am going to tell them. Second, I tell them again. Then, over and over again, I tell them what I told them."

According to successful supervisors in industry, the same technique is used in training workers to perform efficiently and safely. But telling is not always enough; often, you must demonstrate.

Did you ever see a cat push its hind end into a corner and stand off a dog? The cat does this only when it can't climb a tree or escape any other way. This is used as a last resort.

The supervisor who alibis with "I told him or her" is in the same tight spot when that worker gets injured. Although it is true that the worker may have disobeyed orders and not performed the operation safely, the fact remains that the person still was injured. When that happens, everyone loses.

When you want an employee to do a job in a safe way, don't just tell the employee, demonstrate and explain. Let the person try, watch that person, and follow through by checking to see that it is performed safely on a continuing basis. There is much more to training than just conversation.

The supervisor who knows how to train people will never be backed into a corner and desperately try to stave off the savage facts with "I told him/her."

(For use in all mining operations)



September 1981

HOLMES SAFETY ASSOCIATION MONTHLY SAFETY TOPIC

You Have A Choice

You can exist without friends,
though they do mean a lot.
Get along without money,
you don't need a yacht.
But exist without care,
for a moment of time;
And it may be for you,
the end of the line.

For years you may toil,
on a lathe or on a press.
For hours on end,
you could run it by "guess."
But just forget safety,
and your face will be red.
As you stare at the ceiling,
from your hospital bed.

You don't need a new car,
every year just for show.
You don't need a new home,
You don't need to save dough.
But you need to be alert,
As you make each daily tour;
Yes, you need the urge of safety,
just to make each day secure.

When at home you may feel,
there are no hazards here.
Disregard all precautions,
there's nothing to fear.
Only too late to beware,
now they are picking you up
at the foot of the stair.

For the errors that we commit,
we pay the judge the fine.
Yes, it takes much more than law,
to "safetyfy" your mind.
Laws don't order "Safety-First,"
they sow the safety seed.
The choice is left to each of us,
to be a plant or a weed.

WELCOME ABOARD

The San Manuel underground copper mine, owned by Newmont Mining Company and operated by the Magma Copper Company, San Manuel Division, San Manuel, Pima County, Arizona, has formed a safety chapter representing 4,800 employees.

This is the largest underground copper mine in the United States and the seventh largest copper-producing company worldwide.

September 1981



HOLMES SAFETY ASSOCIATION MONTHLY SAFETY TOPIC

DON'T TAKE CHANCES

How many of you have been involved in the investigation of an accident? If you will recall, chance-taking possibly played a part in the accident. Many of us have taken chances at one time or another with no adverse effect simply because conditions were not just right for an accident to occur.

Why do we take chances? Is it because we have grown up with the idea that it is acceptable to take chances? Hasn't this feeling been a part of you since your childhood? A young child growing up certainly does not want to be "tagged" as a sissy and does many things of a risky nature to prove his or her bravery.

Keeping this attitude in mind, each of us needs to take a long hard look at ourselves and do some individual soul-searching. If taking chances is a part of our attitude, we must dig it out where it will be easy to see it in its true light and realize that it is nothing more than childish foolishness. As adults, we must think accordingly if we are to live a long and fruitful life.

Of course, we keep some of the good attitudes that we had as children, but the idea of proving bravery by taking chances is one that we can certainly do without.

There is another reason why we may take chances--because of our own impatience. Most of us hate to wait, even for a moment, and will take chances with a dangerous situation when a few extra moments of waiting would possibly make it safe.

Hopefully, by examining our attitudes, we can make an effort to rid ourselves of any attitudes that we have regarding taking careless chances.

Remember a sure thing. If we take enough chances, we are going to injure ourselves or someone else.

(For use in all mining operations)

September 1981



HOLMES SAFETY ASSOCIATION MONTHLY SAFETY TOPIC

Why Hurry?

Today we are concerned about a tendency many of us have, whether it is driving an automobile, loading material, or timbering a working place. We are often so impatient with ourselves and so intent on our duties that we hurry our actions, and as a result, expose not only ourselves but others to possible injury. Certainly, when driving, we want to get to our destination as soon as possible and not have to spend time crawling up a mountain road in a long line of traffic breathing exhaust fumes. But isn't it better to do this than to risk our lives by attempting to pass on curves and take other unnecessary risks?

A good truck driver doesn't hesitate on the highway, but clips along as fast as safety and the law allow. The trucker knows what he is doing and knows his own limits and those of the rig. Most of us are the same type as the truck driver because we work at a fast and steady pace, as fast as good production and safe practices allow. This enables us to continue turning out production today, tomorrow, and for years to come.

Hurrying a job can be just plain short-cutting, whether or not it is done in a rush. Most of our jobs have been thoroughly studied, and the majority, if not all, of the angles have been considered. This is not to say that everything is perfect. No one would disagree with the fact that the person who operates the equipment or performs an operation will know more about its details than anyone else who studies the job for a limited amount of time. Your ideas are necessary and we do not want to shut off that flow of ideas. If you see a way to short-cut a job, tell us about it first and we can discuss it. DON'T TRY THE SHORT-CUT ROUTE ON YOUR OWN.

Another form of hurrying might be called "pressing." Pressing is crowding your equipment beyond its design and capacity or using make-shift arrangements instead of taking time to do it right.

The opposite of pressing is knowing the capacity of your equipment, knowing the standards set for the job, and knowing your own capacity to do the job.

Hurrying on any job usually produces just the opposite of what is intended. A good steady pace will produce much better results and less mistakes in which someone may be injured, perhaps fatally.

(For use in all mining operations)



HOLMES SAFETY ASSOCIATION MONTHLY SAFETY TOPIC

Safe Truck Operations

The safe operation of trucks depend on the skill and knowledge of many people in the mineral industry. The people who design and build the roadways on which the trucks operate and the mechanics that perform the necessary maintenance on the trucks have a large part to play in the total picture of safe truck operations. The primary responsibility, however, for the safe truck operation rests with the driver. The driver should be aware of this responsibility at all times and should be on the alert to recognize the hazards involved. This is as important for the drivers safety as well as the safety of others.

A really skilled driver is one that has the ability to handle the truck, as well as a safety record of no accidents or injuries. How does a driver become skilled? By learning how to handle the truck under all conditions and by following a few simple steps that help keep hazards involved in driving to a minimum.

Here are some rules a skilled driver follows:

1. Inspect the vehicle at the beginning of the shift, using a checklist and immediately report any defects to the supervisor or to the maintenance department. Emergency brakes as well as regular brakes should be inspected.
2. Before a vehicle is moved, the driver will insure that the pressure for the airbrakes is built up to operating pressure.
3. Before moving the vehicle, the driver will check to make sure that the area is clear and will sound the horn or siren to alert people to the fact that the truck is being moved. The truck should never be moved while there are people in the area directly in front or in back of the vehicle.
4. The driver will maintain a speed on the roadways consistent with the conditions of the roadway and traffic present. Never coast on a downgrade, but engage the proper gear prior to entering the grade (usually the same gear used coming up the grade).
5. The driver will be aware of all happening in the area and will maintain a distance of two truck lengths for every 10 miles of speed behind another vehicle.
6. The driver maintains full control of the vehicle by having a firm grip on the steering wheel with the thumbs on the outside of the wheel to avoid steering wheel spins.

(For use in surface mining operations)

7. If drowsiness occurs, the driver should not operate the vehicle but pull out of the line of traffic and stop to avoid an accident.

8. The driver continuously observes the conditions of the roadway ahead to avoid hitting rocks and holes which may cause losing control of the vehicle.

9. While waiting for an area to load, the driver parks in a clear space with the front of the truck toward the shovel or loading pit so that the presence of personnel or equipment can be observed. The driver also follows the traffic patterns established at the loading area and the dump.

IF YOU FOLLOW THESE "RULES OF THE ROAD," YOU WILL BECOME A SKILLED DRIVER WITH A ZERO-ACCIDENT RECORD.

PRE-SHIFT INSPECTION

On/Off-Road Haulers, Service/Utility Trucks



TIRES

Loose lugs, Cracked rims,
Tire condition, Tire pressure



WALK-AROUND

Clear area, Hydraulic lines,
Fluid levels, Engine compartment,
Fire extinguisher



CAB

Clean mirrors and windows,
Loose objects, Seat belt,
Parking brake ON, Controls, Horn,
Back-up alarm,
(Fire extinguisher)



EMERGENCY STEERING

Unusual noises, Jerking,
Steering response



GAUGES AND WARNING LIGHTS

Before starting engine —
zero readings
After starting engine —
normal operating range



ENGINE

Smooth idle, Unusual noises,
Unusual smoke, Wipers,
Exterior lights



SERVICE BRAKES

Pedal action
Against engine power



PARKING BRAKE

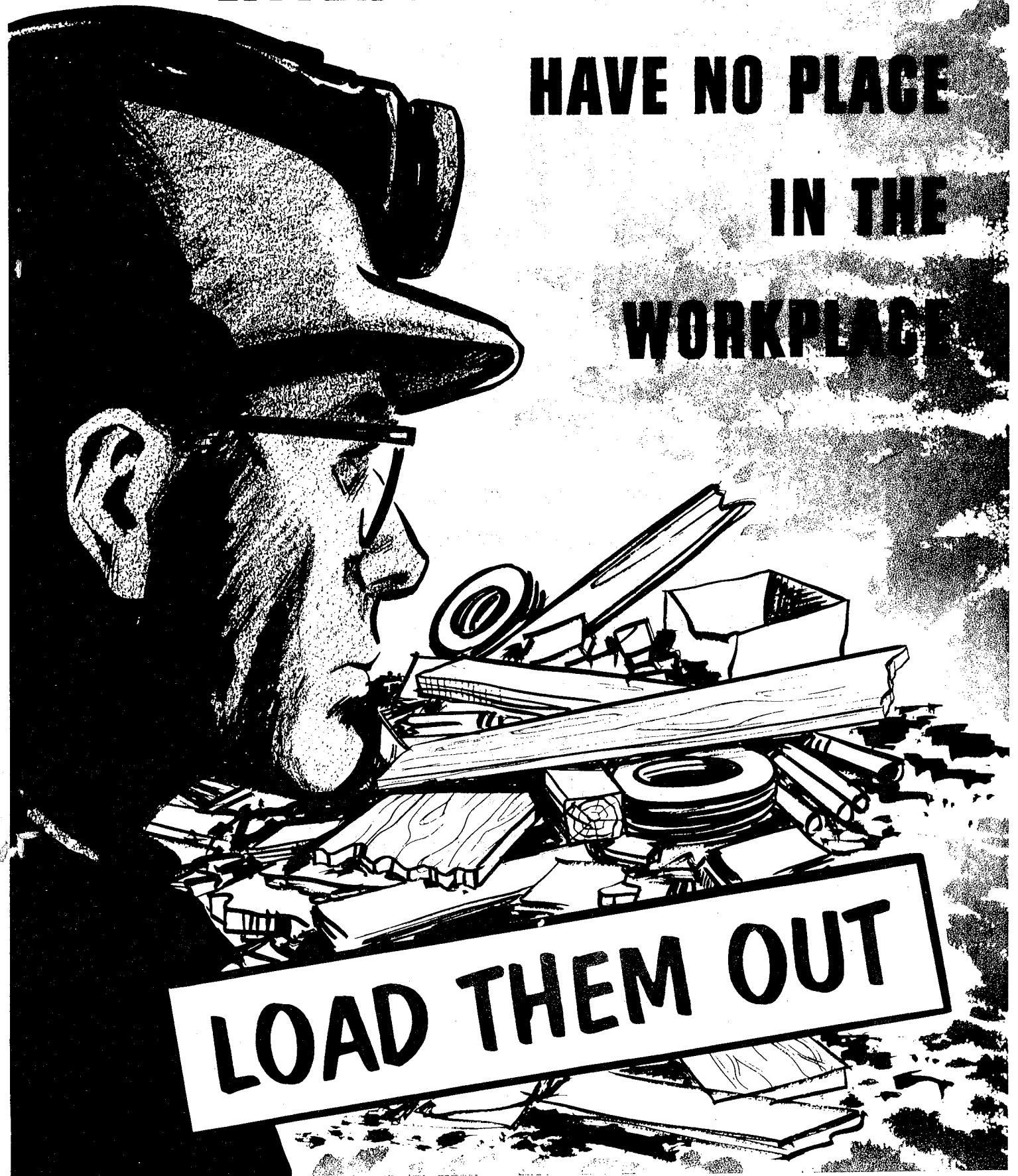
Against engine power



STEERING

Looseness, Jerking,
Steering response, Unusual noises,
Brakes checked with machine
moving

**LITTER AND COMBUSTIBLES
HAVE NO PLACE
IN THE
WORKPLACE**





HOLMES SAFETY ASSOCIATION MONTHLY SAFETY TOPIC

“A PLEDGE”

“I PLEDGE MYSELF TO ACCEPT THE FULL RESPONSIBILITY TO ALWAYS THINK OF MY OWN SAFETY AS WELL AS THE SAFETY OF MY COWORKERS.”

IF THIS THOUGHT IS ACCEPTED IN FULL EARNESTNESS, IT CAN REASONABLY BE EXPECTED THAT YOU WILL BE ABLE TO WORK THIS MONTH AND THE SUCCEEDING MONTHS THAT FOLLOW WITHOUT A DISABLING INJURY.

MAKE SAFETY

ONE in

- 81 -



POSTAGE AND FEES PAID
U.S. Department of Labor

LAB 441

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

5000-22
(Rev. 12-78)



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)

FILL OUT - FOLD AND STAPLE - FREE MAIL-IN

NOTE: BE SURE OUR ADDRESS SHOWS

For uninterrupted delivery, please include any change of address below:

OCTOBER 1981



BULLETIN

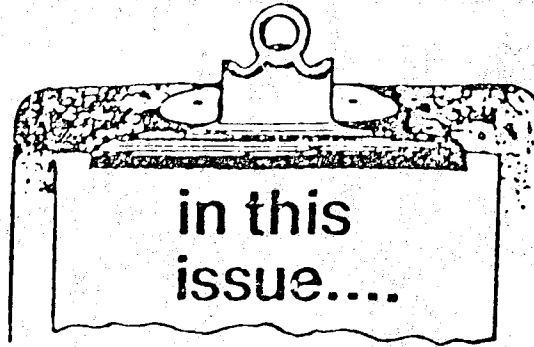


United States Department of Labor

MSHA

Mine Safety and Health Administration

HOLMES SAFETY ASSOCIATION

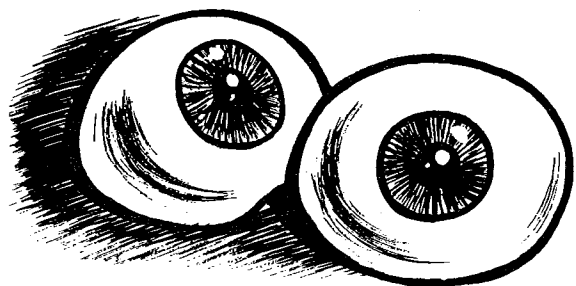


October 1981

- 1 1. Poster, "Better Eye Glasses"
- 2 2. II International Symposium Program/Registration Form
- 6 3. Safety Topic, "Front End Loaders"
- 8 4. Safety Topic, "Ground Control"
- 10 5. Safety Topic, "Part 55.9--Loading, Hauling, Dumping"
- 12 6. Safety Topic, "Part 77 Subpart P--Auger Mining"
- 15 7. Safety Topic, "Part 75.324 through 75.326--Reports by Mine Supervisors"
- 16 8. Safety Topic, "Accidents are Caused" and "Have the Courage to be Safe"
- 17 9. Abstract, "Fall-of-Ground Accident"
- 18 10. Abstract, "Electrical Accident"
- 19 11. Safety Topic, "Foreman-Crew Safety Discussion"
12. Meeting Report Form (chapters only)

SAFETY HAT DIRECTIONS:
GO ON AHEAD!

BETTER EYE GLASSES



THAN
GLASS
EYES

II International Symposium on Training in the Prevention of Occupational Risks in the Mining Industry



Preliminary Program

SHOREHAM HOTEL
Washington, D.C., U.S.A.

SYMPOSIUM PROGRAM

Monday, November 9

Registration 12:00 noon-5:00 p.m.
Welcoming Reception,
U.S. Department of State 6:30 p.m.-8:30 p.m.

*Buses will leave from the main entrance
of the Shoreham Hotel at 5:30 p.m.*

Tuesday, November 10

Registration 7:30 a.m.-5:00 p.m.
Symposium 8:00 a.m.-5:00 p.m.
Exhibits 9:30 a.m.-6:00 p.m.

SESSIONS

8:00 a.m.-12:00 noon

SHOWING OF FILMS
ENTERED FOR FILM FESTIVAL

Papers and discussion on the subject of
**ACHIEVING SAFER AND HIGHER PRODUCTION
THROUGH TRAINING**

- **Accident Reduction and Higher Productivity Through Training**—Gary S. Mihalovich, U.S.A.
- **Goal Setting and Methods of Accident Prevention of the Mining Occupational Association**—Carl Heising, Federal Republic of Germany
- **Training for Accident Repeaters**—Rolene B. Cain and C. Glenn Pierce, U.S.A.
- **Introduction of Mechanized Longwall Systems**—James P. Savage and Marshall Riddell, United Kingdom
- **The Application of Reality Therapy to Accident Prevention**—Edwin S. Ruth, U.S.A.
- **Reduction of Human Error, Injuries, and Accidents as a Result of Training: A Literature Review**—James Peay and William Wiehagen, U.S.A.

1:00 p.m.-5:00 p.m.

SHOWING OF FILMS
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Papers and discussion on the subject of
**TRAINING FOR COPING WITH SPECIAL KINDS OF
HAZARDS IN MINING**

- **Safety Rules on the Use of Explosives and Their Application in Training of Miners in CSSR**—Lubomir Friedl, Czechoslovakia
- **Safety Training and Research for Mine Hoists**—Paul E. Loustaunau, et al., U.S.A.

- **Radiation Protection Training of Uranium Miners**—L. Max Scott and Henry T. Miller, U.S.A.
- **Mine Rescue Training in the U.S.**—William Moser, et al., U.S.A.
- **Mine Rescue Cardiopulmonary Resuscitation (CPR)**—Richard S. Woodland and Richard G. Robinson, U.S.A.

Wednesday, November 11

Registration	7:30 a.m.-5:00 p.m.
Symposium	8:00 a.m.-5:00 p.m.
Exhibits	9:00 a.m.-5:00 p.m.
Reception/Banquet	7:00 p.m.-10:00 p.m.

SESSIONS

8:00 a.m.-12:00 noon

SHOWING OF FILMS
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Papers and discussion on the subject of

APPROACHES TO TRAINING—CASE STUDIES

- **Qualifications and Training for Personnel in the U.K. Coal Mining Industry**—A. Bulmer, et al., United Kingdom
- **Mine Management Approach to a New Training System**—Milton E. Jowsey, Canada
- **Work Instructions for Safety and Efficiency**—James P. Gerkin, U.S.A.
- **Continuous Miner Training System**—C. W. Morris and J. H. TaVoularis, U.S.A.
- **Ergonomics Applied to the Training of Miners**—Jaromir Michalek and Jaroslav Rada, Czechoslovakia
- **Performance Based Training for Mobile Equipment Operators**—Richard Appleton and Richard L. Unger, U.S.A.
- **Assessing Management Goals for Training Front-Line Supervisors**—Mike Klishis, et al., U.S.A.

1:00 p.m.-5:00 p.m.

SHOWING OF FILMS
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Papers and discussion on the subject of

EDUCATIONAL TECHNOLOGY—APPLICATION TO MINER TRAINING

- **Developing Criterion Referenced Instructional (CRI) Mine Safety and Health Courses on the Basis of Task Analysis**—Anne L. Ayers, U.S.A.
- **Modern Training Technology Applied to Miner Training**—Thomas J. Lozito, U.S.A.

- **MORT: A Methodology for Training or Safety Program Development**—Charlette A. Geffen, U.S.A.
- **A Job Titles and Task Analysis Study**—Vicki E. Shell, U.S.A.
- **The Identification and Analysis of State Mine Foreman Certification Procedure and Related Criteria in the U.S.**—Duane A. Letcher, U.S.A.

Thursday, November 12

Registration	7:30 a.m.-5:00 p.m.
Symposium	8:00 a.m.-5:00 p.m.
Exhibits	9:00 a.m.-12:00 noon

SESSIONS

8:00 a.m.-12:00 noon

SHOWING OF FILMS
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Papers and discussion on the subject of

ROLE OF INDUSTRY, INSTITUTIONS OF HIGHER EDUCATION, AND GOVERNMENTS IN TRAINING

- **Training of Industrial Safety Specialists for West German Coal Industry**—Hans Berg, Joseph Buse, and Karl Roettger, Federal Republic of Germany
- **Health and Safety Training for Miners—The Role of the University**—J. D. Bennett, U.S.A.
- **Popularization of Labor Safety, Its Forms and Efficacy**—Alexander F. Belousov, U.S.S.R.
- **Risk Control in Curricula for Mining Engineering Students**—Michael J. Martinson, South Africa
- **Approaches to Health and Safety Education of the Undergraduate Mining Engineering Student**—R. Stefanko, et al., U.S.A.
- **Safety Training in Taiwan Coal Mines and Experience with Philippine Mining Engineers**—Chin-Fu Kao, et al., Taiwan
- **Role of a Two-Year Technical Program in Mine Safety Training**, U.S.A.

1:00 p.m.-5:00 p.m.

SHOWING OF FILMS
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Papers and discussion on the subject of

FACTORS THAT INFLUENCE TRAINING

- **Miners' Responsibility for Respecting Safety Regulations**—G. D. Lidin, U.S.S.R.
- **Preventing Industrial Injuries Through an Analysis of Their Causes**—Ryszard Stecko, et al., Poland
- **Task Demands of Stoopwalking and Crawling**—S. J. Morrissey and M. M. Ayoub, U.S.A.

- **Prevalence Estimation of Heavy Alcohol Use in the Coal Mining Industry**—Thomas F. Beltrame, U.S.A.
- **Reducing Accidents Through Psychosocial Services**—John G. McNutt, U.S.A.
- **What Motivates Trained Miners to Disregard Safe Work Habits**—Charles J. Wisvary, U.S.A.

Friday, November 13

Registration 9:00 a.m.-12:00 noon
 Symposium 9:00 a.m.-12:00 noon

SESSIONS

9:00 a.m.-12:00 noon

**SHOWING OF FILMS
 ENTERED FOR FILM FESTIVAL**

- **Panel Discussion: Learning from the Past—Planning for the Future.**
Panel and audience will recommend topics for the next international symposium
- **Presentation of Awards to first, second, and third place winners of the Film/Poster Festivals**
- **Adjournment**

Symposium Registration Form
 II International Symposium on Training in the
 Prevention of Occupational Risks in the Mining Industry

Symposium Registration Form

II International Symposium on Training in the Prevention of Occupational Risks in the Mining Industry
 November 9-13, 1981

Please Print or Type:

Name: LAST _____ FIRST _____ INITIAL _____

Title: _____

Organization: _____

Address: _____

CITY _____ STATE _____ ZIP _____ COUNTRY _____

Telephone: _____ (AREA CODE) _____

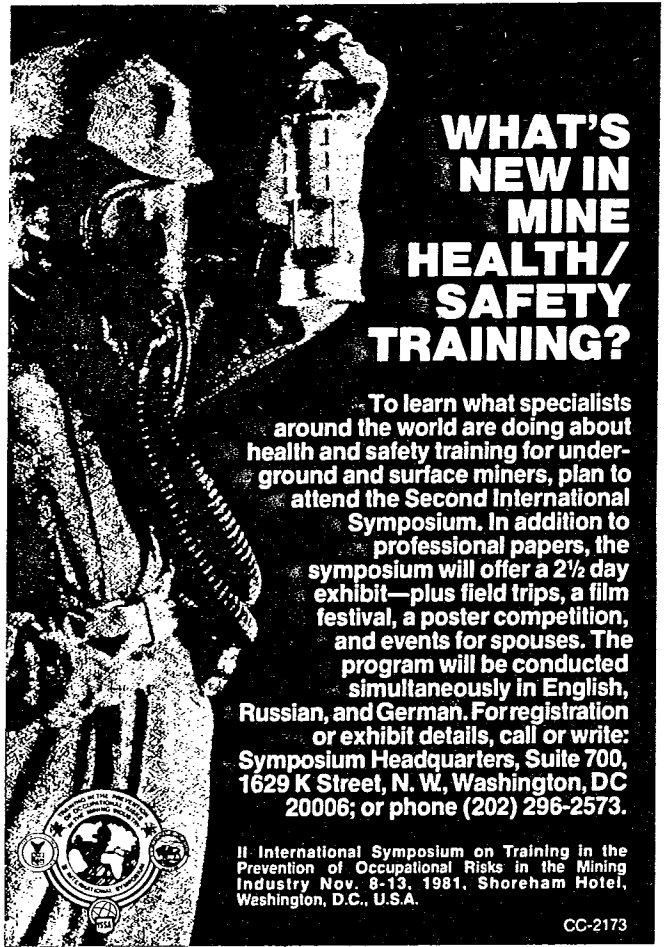
Name of Spouse: _____

Please indicate if interested in a Post-Symposium Western Field Trip

Make Check Payable in U.S. Dollars to: **MSHA**

Mail to: **Mine Safety Training Symposium Headquarters**
 Suite 700, 1629 K Street, N.W.
 Washington, D.C. 20006, U.S.A.

REGISTRATION NO.	EVENT	AMOUNT
_____	Full Registration(s) @ \$250 if Received by October 16, 1981	\$ _____
_____	Full Registration @ \$275 after October 16, 1981	\$ _____
_____	Ticket(s) for Welcoming Reception @ \$25 each	\$ _____
_____	Extra tickets for Wednesday Reception/Banquet @ \$35 each	\$ _____
_____	Ticket(s) for Tuesday Spouse Tour @ \$26 each	\$ _____
_____	Ticket(s) for Wednesday Spouse Tour @ \$26 each	\$ _____
_____	Additional copies of Proceedings Volume @ \$25 each	\$ _____
_____	Tickets for Post-Symposium Eastern Field Trip	\$ _____
_____	Single Occupancy @ \$453	\$ _____
_____	Double Occupancy @ \$804	\$ _____
TOTAL AMOUNT ENCLOSED		\$ _____



WHAT'S NEW IN MINE HEALTH/SAFETY TRAINING?

To learn what specialists around the world are doing about health and safety training for underground and surface miners, plan to attend the **Second International Symposium**. In addition to professional papers, the symposium will offer a 2½ day exhibit—plus field trips, a film festival, a poster competition, and events for spouses. The program will be conducted simultaneously in English, Russian, and German. For registration or exhibit details, call or write: **Symposium Headquarters, Suite 700, 1629 K Street, N. W., Washington, DC 20006; or phone (202) 296-2573.**

II International Symposium on Training in the Prevention of Occupational Risks in the Mining Industry Nov. 8-13, 1981, Shoreham Hotel, Washington, D.C., U.S.A.



HOLMES SAFETY ASSOCIATION MONTHLY SAFETY TOPIC

Front End Loaders

The front end loader has proved to be one of the most hazardous pieces of equipment that we use in the mineral industry. Fatalities involving the front end loader lead all other equipment used in the industry. Statistics seem to show that most accidents occur while the machine is backing up, however most fatalities occur when the unloaded machine is being trammed at high speeds from one area to another. Trimming is especially dangerous because the front end loader, when empty, tends to bounce and weave at high speeds. Downgrades have also proved to be particularly hazardous due to the increased problems in controlling the vehicle. Other hazards include collisions with other equipment while operating in congested areas, getting caught in pinch points of the bucket arms or articulated steering, and the spilling of parts of the load on the operator or others working in the area.

The operator must be aware of these hazards at all times and should be alert to the hazards that may cause injury to him/her or to others on the job. The following suggestions are only a minimum list of ways of minimizing the hazards and reducing the possibility of injuries on the front end loader.

1. Prior to starting the front end loader the operator will check the machine for safety factors, including tires, brakes, emergency brakes, hydraulic systems, steering, lights, and alarm systems. A check list for your equipment should be provided for this purpose. If anything is wrong with the equipment, it should be reported to the proper authorities. Do not start the machine if it is not in safe condition!
2. The operator will wear the proper protective equipment for the job. The minimum equipment must include safety hat, shoes, and glasses, and any other special equipment needed for the specific job.
3. Before starting the machine the operator will make a thorough check of the area around the machine to be sure that the area is clear for movement.
4. No riders other than the operator will ever be allowed on the machine.
5. The operator will move the equipment very cautiously, especially in congested areas. When backing the operator must have a clear field of vision and signal by horn or other device so that others in the area become aware.
6. While traming the machine consideration will be given to road conditions, weather, traffic, and grade. The loader will be moved at a speed slow enough to insure total operator control at all times.

(For use in surface mining operations)

7. When working near embankments or on grades, edges must be guarded by riprap, barricades, berms, or other suitable means to lessen the possibility of running off the edge. The loader speed should be regulated to a minimum, the engine should be engaged, and the transmission should be in low range.

8. In loading a truck, established precedures must be followed at all times. The truck should be loaded from the driver's side whenever possible. The truck driver and loader must follow an established procedure during loading operations. The loader must know where the driver is at all times and the traffic patterns for the area must be known and followed.

9. On leaving the cab, the bucket must be grounded and the machine shut down and locked to prevent any use by unauthorized persons.

Your company probably has established procedures that incorporate the general rules for front end loader operations. Know and follow these procedures for your own safety as well as for the safety of your fellow employees.

PRE-SHIFT INSPECTION

Diesel-Electric Loaders



TIRES

Loose lugs, Cracked rims,
Tire condition, Tire pressure



WALK-AROUND

Clear area, Loader linkage,
Engine compartment,
Hydraulic lines, Fluid levels,
Insulation, Oil leaks,
Fire extinguisher



OPERATOR'S COMPARTMENT

Clean windows, Loose objects,
Seat belt, Parking brake ON,
Controls, Back-up alarm,
(Fire extinguisher)



GAUGES AND WARNING LIGHTS

Before starting engine —
zero readings
After starting engine —
normal operating range



ENGINE

Smooth idle, Unusual smoke,
Unusual noises, Wipers,
Exterior lights



SERVICE BRAKES

Pedal action
Against engine power



PARKING BRAKE

Against engine power



STEERING

Looseness, Jerking,
Steering response,
Unusual noises,
Dynamic brake at 5 mph



HOLMES SAFETY ASSOCIATION MONTHLY SAFETY TOPIC

Ground Control

Every year falls of rock in underground mines lead all other causes of mining deaths. Much has been learned and demonstrated on how ground can be supported and made safe. Basically, such measures are matters of cost, time, and procedures. Despite this knowledge there is a prevalent tendency for many miners to exercise a "gambler's judgment" based on luck and experience. Too often rock conditions and needed support is misjudged, leaving a doubtful piece in place rather than taking it down. Many lives have been lost when a fatal judgment was made that back or wall rock could sustain itself until regular support could be provided.

Faulty judgment can be avoided by establishing and enforcing minimum standards for effective ground control, and by incorporating these into each work cycle. When these measures are taken and supplemented by regular and thorough examinations of the entire mine area whereby unsafe conditions are found and corrected, then and only then can one say ground fall accidents may be beyond human control.

The following recommended rules include minimum measures that should be taken to safeguard mine workers.

1. Safe standards should be established and followed for timbering, rock bolting, and other methods of support consistent with the nature of the ground and the excavation method employed.
2. Miners should be trained in the proper methods of testing for, taking down, and supporting loose ground.
3. Miners should be required to examine and test the back, face and walls of their working areas at the start of each shift. Loose ground and suspected loose ground should be taken down or supported adequately before any work is performed.
4. Supervisors should make thorough examinations of ground conditions during their visits to insure that proper testing and ground control practices are being followed.
5. The back and walls along haulageways and travelways should be examined during each shift and scaled or supported as necessary. Responsibility for this procedure should be assigned to specific qualified persons.
6. A scaling bar of proper length, blunt on one end and equipped with a hand protector, should be provided at each working place.
7. Picks or other short tools that would place the user in danger of falling rock should not be used for barring down.

(For use in underground mining operations)

8. Miners testing for or taking down loose ground should maintain secure footing in safe locations under a properly supported or well-scaled roof.
9. Safe mechanical means should be provided to elevate those who bar down high back beyond the normal reach of scaling bars of reasonable length and weight.
10. Ample and readily accessible supplies of suitable materials should be provided to support all working places safely.
11. Timbers and steel sets or other supports should be blocked tightly and promptly.
12. Damaged or dislodged supports should be repaired or replaced without delay. New supports should be installed wherever possible before removing the damaged supports.
13. Temporary ground support, such as posts, jacks, crown bars, or forepoles, should be installed as needed.
14. Rock bolts should be installed in accordance with recommendations of MSHA.
15. Rock bolts should be installed as soon as possible after an area is exposed.
16. Rock-bolting materials should meet the applicable standards.
17. An impact wrench should be used for tightening rock bolts to insure uniform tightening.
18. Torque meters should be available where rock bolts are used for ground support.
19. Rock bolts should be tightened initially to the recommended torque and tested periodically for continued tightness. Bolts that have lost their torque should be retightened to the specified amount or additional bolts installed.



HOLMES SAFETY ASSOCIATION MONTHLY SAFETY TOPIC

Excerpts from Code of Federal Regulations
Subchapter N--Metal and Nonmetal Mine Safety
Part 55.9--Loading, Hauling, Dumping

All of the standards are mandatory; violation of a standard will subject the mine operator to an order or notice of violation as required by Section 8 of the Act.

55.9-53 Mandatory. Water, debris, or spilled material which create hazards to moving equipment shall be removed.

55.9-54 Mandatory. Berms, bumper blocks, safety hooks, or similar means shall be provided to prevent overtravel and overturning at dumping locations.

55.9-55 Mandatory. Where there is evidence that the ground at a dumping place may fail to support the weight of a vehicle, loads shall be dumped back from the edge of the bank.

55.9-56 Mandatory. Where necessary, bumper blocks or the equivalent shall be provided at track dead ends.

55.9-57 Mandatory. Grizzlies, grates, and other stationary sizing devices shall be anchored securely.

55.9-58 Mandatory. If truck spotters are used, they shall be well in the clear while trucks are backing into dumping positions and dumping; lights shall be used at night to direct trucks.

55.9-59 Mandatory. Public and permanent railroad crossings shall be posted with warning signs or signals, or shall be guarded when trains are passing and shall be planked or otherwise filled between rails.

55.9-60 Mandatory. Where overhead clearance is restricted, warning devices shall be installed and restricted area shall be conspicuously marked.

55.9-61 Mandatory. Stockpile and muckpile faces shall be trimmed to prevent hazards to personnel.

55.9-62 Mandatory. Rocks too large to be handled safely shall be broken before loading.

55.9-63 Mandatory. Ramps and dumping facilities shall:

(A) Be of substantial construction; and

(B) Have suitable width, clearance and headroom to accommodate the equipment using the facilities.

55.9-64 Mandatory. Chute-loading installations shall be designed so that the persons pulling chutes are not required to be in a hazardous position while loading cars.

- 55.9-65 Mandatory. Cars shall not be coupled, or uncoupled manually from the inside of curves unless the railroad and cars are so designed to eliminate any hazard from manual coupling.
- 55.9-66 Mandatory. When a locomotive on one track is used to move equipment on a different track, a suitable chain, cable, or drawbar shall be used.
- 55.9-67 Mandatory. Facilities used to transport people to and from work areas shall not be overcrowded.
- 55.9-68 Mandatory. Lights, flares, or other warning devices shall be posted when parked equipment creates a hazard to vehicular traffic.
- 55.9-69 Mandatory. Tires shall be deflated before repairs on them are started and adequate means shall be provided to prevent wheel locking rims from creating a hazard during tire inflation.
- 55.9-70 Mandatory. A tow bar of substantial construction or other suitable means of control shall be used to tow heavy equipment. A substantial safety chain or wire rope shall be used in conjunction with any primary rigging.
- 55.9-71 Mandatory. Traffic rules including speed, signals, and warning signs shall be standardized at each mine and posted.
- 55.9-72 Mandatory. Persons attempting to free hangups shall be experienced persons who understand the hazards involved.
- 55.9-73 Mandatory. Defective equipment, removed from service as unsafe to operate, shall be tagged to prohibit further use until repairs are completed.
- 55.9-74 Mandatory. Dust shall be suitably controlled at muck piles, material transfer points, crushers, and on haulage roads where hazards to personnel may be created as a result of impaired visibility.
- 55.9-75 Mandatory. through 55.9-82 (RESERVED)
- 55.9-83 Mandatory. Where possible at least 30 inches continuous clearance from the farthest projection of moving railroad equipment shall be provided on at least one side of the tracks; all places where it is not possible to provide 30 inches clearance shall be marked conspicuously.
- 55.9-84 (RESERVED)
- 55.9-85 Mandatory. Tools, materials and equipment shall not be transported with persons in vehicles, rail cars, and other conveyances unless means have been provided to make such transportation safe.
- 55.9-86 (RESERVED)
- 55.9-87 Mandatory. Heavy duty mobile equipment shall be provided with audible warning devices. When the operator of such equipment has an obstructed view to the rear, the equipment shall have either an automatic reverse signal alarm which is audible above the surrounding noise level or an observer to signal when it is safe to back up.



HOLMES SAFETY ASSOCIATION MONTHLY SAFETY TOPIC

Excerpts from Code of Federal Regulations
Part 77--Surface Coal Mines and
Surface Work Areas of Underground Coal Mines
Subpart P--Auger Mining, Sections 77.1500-77.1505

In today's session we will discuss the safety standards as they pertain to auger mining. Auger mining allows for the recovery of coal that might otherwise be lost due to excessive cost to mine, Etc. However, with auger mining workers are subjected to additional hazards such as cutting into abandoned underground workings which may contain explosive or noxious gases and materials falling from the highwall. Highwall related accidents accounted for 70 percent of the auger mining fatalities that occurred during a five-year sample period.

77.1500--Auger mining planning.

Auger mining shall be planned and conducted by the operator to insure against any hazard to underground workings located at or near such auger operations and all auger holes shall be located so as to prevent:

- (A) The disruption of the ventilation system of any active underground mine;
- (B) Inundation hazards from surface water entering any active underground mine;
- (C) Damage to the roof and ribs of active underground workings; and
- (D) Intersection of auger holes with underground mine workings known to contain dangerous quantities of impounded water.

77.1501--Auger mining; inspections.

(A) The face of all highwalls, to a distance of 25 feet on both sides of each drilling site, shall be inspected by a certified person before any augering operation is begun, and at least once during each coal producing shift and all loose material shall be removed from the drilling site before persons are permitted to enter the drilling area. The results of all such inspections shall be recorded daily in a book approved by the Secretary.

"The drilling site" as referred to in Section 77.1501 (A) should include area of the highwall under which augering operations will be conducted during the shift. "All loose material" as used is to be construed to mean loose material that poses a hazard to workers.

(B) In addition, the face of all highwalls, to a distance of 25 feet on both sides of each drilling site, shall be inspected frequently by a certified person during any auger operation conducted either during or after a heavy rainfall or any period of intermittent freezing and thawing and the results of such inspections shall be recorded as provided in paragraph (A) of this section.

The term, "shall be inspected frequently" as used in Section 77.1501 (B) shall be construed to mean that such inspections should be made at intervals not to exceed 30 minutes when augering operations are conducted during a heavy rainfall and as often as necessary to assure the safety of the workers after a heavy rainfall or during any period of intermittent freezing and thawing.

(C) When an auger hole penetrates an abandoned or mined out area of an underground mine, tests for methane and oxygen deficiency shall be made at the collar of the hole by a qualified person using devices approved by the Secretary to determine if dangerous quantities of methane or oxygen-deficient air are present or being emitted. If such is found no further work shall be performed until the atmosphere has been made safe.

(D) Tests for oxygen deficiency shall be conducted with a permissible flame safety lamp or other means approved by the Secretary and all tests for methane shall be conducted with a methane detector approved by the Secretary.

(E) Internal combustion engines shall not be operated in the vicinity of any auger hole in which tests for methane or oxygen deficiency are being made.

77.1502--Auger holes; restrictions against entering.

No person shall be permitted to enter an auger hole except with the approval of the Coal Mine Health and Safety Manager or Subdistrict Manager of the district in which the mine is located and under such conditions as may be prescribed by such managers.

77.1503--Augering equipment; overhead protection.

(A) Auger machines which are exposed to highwall to highwall hazards, together with all those parts of any coal elevating conveyors where persons are required to work during augering operations, shall be covered with heavy gauge screen which does not obstruct the view of the highwall and is strong enough to prevent injuries to workers from falling material.

(B) No work shall be done under any overhang and, when a crew is engaged in connecting or disconnecting auger sections under a highwall, at least one person shall be assigned to observe the highwall for possible movement.

77.1504--Auger equipment; operation.

(A) Persons shall be kept clear of the auger train while it is in motion and shall not be permitted to pass under or over an auger train, except where adequate crossing facilities are provided.

(B) Persons shall be kept clear of auger sections being swung into position.

(C) No person, including the auger machine operator, shall, where practicable, be stationed in direct line with a borehole during augering operations.

The following example meets the requirements of section 77.1504 (C); If the control cab on the augering machine is located directly above or to the side of the auger train, the auger machine operator shall not be considered as being in direct line with the borehole during augering operations.

(D) Operator of auger equipment shall not leave the controls of such equipment while the auger is in operation.

(E) Adequate illumination shall be provided for work areas after dark.

To meet the requirements of Section 77.1504 (E) the face of highwalls at auger mining sites shall be provided with adequate illumination for a distance of 25 feet on both sides of each drilling site.

77.1505--Auger holes; blocking.

Auger holes shall be blocked with highwall spoil or other suitable material before they are abandoned.

In accordance with Section 77.1505, the blocking material should be piled at least 12 inches above the top of the auger hole to allow for settling. "other suitable material" shall consist of material that will not fire readily.



October 1981

HOLMES SAFETY ASSOCIATION MONTHLY SAFETY TOPIC

Excerpts from Code of Federal Regulations

Part 75.324--Reports by Mine Supervisors

Each day, the mine supervisor and each of his/her assistants shall enter plainly and sign with ink or indelible pencil in a book approved by the Secretary provided for that purpose a report of the condition of the mine or portion thereof under his/her supervision, which report shall state clearly the location and nature of any hazardous condition observed or reported during the day and what action was taken to remedy such condition. Such book shall be kept in an area on the surface of the mine chosen by the operator to minimize the danger of destruction by fire or other hazard, and shall be open for inspection by interested persons.

Part 75.325--Reopening Mines

Before a coal mine is reopened after having been abandoned or declared inactive by the operator, the Secretary shall be notified, and an inspection shall be made of the entire mine by an authorized representative of the Secretary before mining operations commence.

Part 75.326--Aircourses and Belt Haulage Entries

In any coal mine opened after March 30, 1970, the entries used as intake and return air courses shall be separated from belt haulage entries, and each operator of such mine shall limit the velocity of the air coursed through belt haulage entries to the amount necessary to provide an adequate supply of oxygen in such entries, and to insure that the air therein shall contain less than 1.0 volume per centum of methane, and such air shall not be used to ventilate active working places. Whenever an authorized representative of the Secretary finds, in the case of any coal mine opened on or prior to March 30, 1970, which has been developed with more than two entries, that the conditions in the entries, other than belt haulage entries, are such as to permit adequately the coursing of intake or return air through such entries, (a) the belt haulage entries shall not be used to ventilate, unless such entries are necessary to ventilate, active working places, and (b) when the belt haulage entries are not necessary to ventilate the active working places, the operator of such mine shall limit the velocity of the air coursed through the belt haulage entries to the amount necessary to provide an adequate supply of oxygen in such entries, and to insure that the air therein shall contain less than 1.0 volume per centum of methane.

(For use in underground coal-mining operations)



HOLMES SAFETY ASSOCIATION MONTHLY SAFETY TOPIC

Accidents are Caused

Many people think that accidents just happen; that they are due to bad luck. Whenever there is an accident, regardless of its nature, someone is sure to ask, "Why did it happen?" The answer could be, "It didn't just happen, it was caused by human negligence".

Quite often, in accidents that were caused at least in part by human negligence, the person who gets hurt is not the one who was negligent. This is unfortunate and a point that each of us should always keep in mind. We may become the victim of another person. With this in mind, each person can only have a moderate amount of control over his or her own safety.

What reasons were given for some of the accidents that you may have recently seen or heard about? Often, it is to carelessness or inattention. If sufficient time is spent tracing the accident back, we may find that somewhere, somehow, someone could have done something to have prevented the accident.

Do something to prevent accidents yourself. Always make sure that you work in a safe manner so that you are not the cause and/or victim of an accident.

Have the Courage to be Safe

An employee was using a hammer and drill to punch a hole in a masonry wall and was wearing a pair of cup goggles so that his eyes would be protected against flying objects from all angles. A coworker passing by, looked over, laughed and commented on his appearance. In spite of the kidding, the worker continued to wear the eye protection. A minute or two later, the drill struck a hard spot. When he hit the drill with the hammer, the drill snapped in half. The broken end flew into his face, striking the right lens of his goggles, ricocheted, and landed 15 feet away. The impact of the blow knocked the right lens out of the goggles, but the glass had kept the drill from striking his eye and he was not injured.

This is a true story of a man who had the courage to ignore the silly remarks of someone with complete disregard for safety. It's an entirely wrong idea to think that people who do great physical feats are unmindful of safety. Athletes--football players, big league baseball stars, deep sea divers and auto racers--all use safety equipment. If we want to get things done and be expert performers, we can not ignore proven safety standards and hope to always come out ahead. Have the courage of your convictions by always following safe procedures at work, at play, and in your home.

(For use in all mining operations)

ABSTRACT FROM FATAL ACCIDENT

October 1981

HOLMES SAFETY ASSOCIATION
MONTHLY SAFETY TOPIC

Fall-of-Ground Accident



General Information: A contract miner was fatally injured when he was struck by a fall-of-ground. He had 1 year and 10 months of mining experience. The mine, an underground uranium operation, was operated three 8-hour shifts a day, 5 days a week. It was opened by two vertical, 14-foot diameter, four compartment shafts connected to two mining levels. A modified room-and-pillar system of mining was used in conjunction with diesel-powered trackless and track haulage.

Description of Accident: The victim and two coworkers were assigned to their working place and proceeded to check their working area. They set up their equipment in the drift and drilled out the round. A coworker stated that after the round was drilled, they removed the roof jack. He and the victim then proceeded to load the face. Suddenly, a slab fell from the back knocking both men down. When the victim's coworker got up he saw the victim pinned under the slab and tried to remove it but it was too heavy to lift. He obtained help and the slab was finally removed and the victim transported to the hospital.

Cause of Accident: The direct cause of the accident was the victim standing under the section of the back where no ground support was provided. A contributing cause was the victim's failure to obey the State and company regulations which prohibit working under an unsupported section of the back.

Recommendations: Permanent ground support shall be provided under all ground before work is done.

Section 57.20-7 of the Code of Federal Regulations states:

Employees should be constantly alert to the potential of accidents on their jobs.

Employees should be trained to the potential hazards of accidents on their jobs. Supervisory personnel should constantly observe work habits of personnel working in areas where ground conditions are expected to be dangerous. Proper procedures concerning safe work practices should be continuously emphasized.

(For use in underground mining operations)

ABSTRACT FROM FATAL ACCIDENT

October 1981

HOLMES SAFETY ASSOCIATION
MONTHLY SAFETY TOPIC



Electrical Accident

General Information: An electrical accident occurred at a sludge pond resulting in the death of a truck driver. The victim had 28 years of mining experience.

Description of Accident: The day shift crew of the preparation plant began their normal work shift. After examining the work areas and reading the necessary reports, the supervisor began assigning duties and work locations to the crew members. The victim was instructed to assist the crane operator in relocating the crane for dredging operations at the sludge pond.

The crane was trammed to the new location near the sludge pond and two of the outriggers were pulled out and blocked. The crane operator then raised the boom and clam shell to use as a counterweight so the other two outriggers could be extended and blocked. As he swung the boom to the side opposite the outriggers to be blocked, the boom cable contacted a high-voltage, single-phase (7200) volt power line that was parallel to the road the crane was located on. The victim, who was standing on the ground in contact with one of the outriggers, received a fatal electric shock as the electric current traveled through his body to earth ground. The crane operator saw that the cable had contacted the high-voltage wire and swung the boom back away from it. He then noticed the victim lying on the ground and summoned aid.

Conclusion: The accident and resultant fatality occurred because the crane was being operated within less than 10 feet of an energized 7200-volt power line, with no other precautions being taken. This is a violation of Section 77.807-3, "Movement of equipment; minimum distance from high-voltage lines," which states:

When any part of any equipment operated on the surface of any coal mine is required to pass under or by any energized high-voltage powerline and the clearance between such equipment and powerline is less than that specified in Section 77.807-2 (10 feet) for booms and masts, such powerlines shall be deenergized or other precautions shall be taken.

(For use in surface mining operations)

October 1981



HOLMES SAFETY ASSOCIATION MONTHLY SAFETY TOPIC

Foreman-Crew Safety Discussion

We all know that safety on the job is everybody's business. Yet we usually use our safety meetings as a one-way information-giving experience where the safety officer instructs the crew in safety by using a set program of materials. We also know that participation is a good way to insure interest in a topic. So why not have a supervisor-crew safety discussion? This would be a break from the regular information-giving safety meetings, and could develop into an information-receiving, problem-solving session that would encourage participation by all members of the crew.

In order to be effective the discussion must be conducted so that the only subject discussed is safety and particular safety situations that relate directly to the group and their working situation. This takes preparation on the part of the supervisor and requires development of a technique that will bring out from the crew information and ideas about safety at the working place. Some points for a safety director to keep in mind when developing a safety discussion are:

1. The objective of a safety discussion is for miners to discuss their safety problems and learn more about safety on their own jobs.
2. Have a carefully planned standby problem to present for discussion in case the employees are not responsive. Work procedures, production requirements, and safety should be integrated into the discussion.
3. Allow suggestions. Participation in discussions stimulates all-around cooperation of employees and should improve their attitudes toward safety on the job.
4. Call upon individuals for discussion when volunteers are not in evidence, and thus encourage participation by the entire crew.
5. Keep meeting objective - safety must be the only subject discussed, insofar as it pertains to the job. Ask for reports on (1) "near accidents", (2) unsafe practices, and (3) accidents.

As in any discussion, the safety director must listen to what the crew is saying. Accept ideas from the crew and work these ideas into the procedures to be followed.

Try a safety discussion with your crew and see how it works. You may find them very helpful.

(For use in all mining operations)