

MARCH 1985



BULLETIN



**Make A
Safety Drive
In "85"**

THIS SAFETY BULLETIN CONTAINS SAFETY ARTICLES ON A VARIETY OF SUBJECTS, FATAL ACCIDENT ABSTRACTS, STUDIES, POSTERS AND OTHER SAFETY INFORMATION FOR PRESENTATION TO GROUPS OF MINE AND PLANT WORKERS.

AS GROUP SPOKESPERSON, LEADER OR SUPERVISOR, YOU PLAY AN IMPORTANT ROLE IN THE ACCIDENT PREVENTION PROGRAM FOR YOUR COMPANY. THE WAY YOU TALK, THINK AND ACT ABOUT SAFETY DETERMINES, TO A GREAT EXTENT, THE ATTITUDE YOUR COWORKERS WILL HAVE ABOUT SAFETY.

THIS MATERIAL, FUNDED BY THE MINE SAFETY AND HEALTH ADMINISTRATION, U.S. DEPARTMENT OF LABOR, IS PROVIDED FREE AS A BASIS FOR DISCUSSION AT ON-THE-JOB SAFETY MEETINGS. IT MAY BE USED AS IS OR TAILORED TO FIT LOCAL CONDITIONS IN ANY MANNER THAT IS APPROPRIATE.

PLEASE USE THE ENCLOSED GREEN MEETING REPORT FORM TO RECORD YOUR SAFETY MEETINGS AND RETURN TO THE HOLMES SAFETY ASSOCIATION, POSTAGE-PAID.



IN THIS ISSUE...

	<u>PAGE</u>
Topic - "Welcome New Members"	2
Topic - "HSA Annual Meeting"	4
Accident Summary - "Fatal Powered-Haulage Accident"	5
Poster - "Powered-Haulage Accident"	6
Safety Topic - "Motivation for Improvement"	7
Topic - "Hearing Aids"	10
Safety Topic - "Safe Operation of Equipment on a Longwall"	11
Table - "Rollover Protective Structure"	14
Safety Topic - "Defensive Driving"	15
Safety Topic - "The Voice"	16
Safety Topic - "Safety is Like Salt"	17
Topic - "Rules are Mental Safety Devices"	18
Comments - "Comments from the Secretary"	19
Study - "Chemical Burns at Coal Mines"	20
Topic - "Notebook"	25
Topic - "The Last Word"	26
Meeting Report Form - (Mine Chapters Only)	



March 1985

<u>COMPANY</u>	<u>CHAPTER NO.</u>	<u>LOCATION</u>
Southern Illinois Stone Co.	5795	Buncombe, IL
Republic Gypsum Co.	5796	Duke, OK
Magcobar Minerals	5797	Galveston, TX
Deca Mining Co., Inc.	5798	Grundy, VA
Bandit Mining Co., Inc.	5799	Grundy, VA
Krest Coal Co., Inc.	5800	Grundy, VA
Heather Coal, Inc.	5801	Grundy, VA
C. and M. Coal Co., Inc.	5802	Grundy, VA
A. L. Lee Corporation	5803	Mt. Hope, WV
Drummond Dolomite Inc.	5804	Drummond Is., MI
Reid Sand & Gravel, Inc.	5805	Bellevue, WA
Beaver Creek Sand & Gravel, Inc.	5806	Salem, OH
Heiser Sand & Gravel	5807	N. Canton, OH
The Belden Brick Company	5808	Sugarcreek, OH
Petersburg Lime	5809	Petersburg, OH
Bocephus Coal Co., Inc.	5810	Grundy, VA
Bituminous Mine Training, Inc.	5811	Barbourville, KY
Tri County Quarries	5812	Palmyra, IL
Rochelle Atwood Quarry	5813	Rochelle, IL
Marathon Industries, Inc.	5814	Montgomery, WV
The Stone Creek Brick Co.	5815	Stone Creek, OH
Harmar Clay Products Inc.	5816	Harmarville, PA
F. Taylor Mining Inc.	5817	Kite, KY
Diamond Coal & Coke Co.	5818	Sutersville, PA
Emelio Mining Company, Ltd.	5819	Bobtown, PA
B & F Coal Co.	5820	Carrolltown, PA
Brown Badgett, Inc.	5821	Beaver Dam, KY
Ropes Unit	5822	Champion, MI
Addy Asphalt Co.	5823	Wilkes-Barre, PA
Antrim Mining Inc.	5824	Antrim, PA
South Hollow Coal Co.	5825	Bee, VA
Elmer Larson Inc.	5826	DeKalb, IL
Sierra Coal Co.	5827	Evanston, KY





<u>COMPANY</u>	<u>CHAPTER NO.</u>	<u>LOCATION</u>
Stoneyhurst Quarries Inc.	5828	Bethesda, MD
Operating Engineers	5829	Escanaba, MI
D. M. Stoltzfus & Son, Inc.	5830	Talmage, PA
McIntyre Sand Co., Inc.	5831	Union, SC
Four D. Coal Co., Inc.	5832	Hurley, VA
Rainelle Land Development, Inc.	5833	Leslie, WV
Gillett Cement Products, Inc.	5834	Gillett, WI
LoBue, Inc.	5835	Chicago Hgts., IL
East Riverdale Gravel Co.	5836	Keeneyville, IL
Beverly Gravel, Inc.	5837	Elgin, IL
Ward Stone, Inc.	5838	Franceville, IN
Central Illinois Stone Co., Inc.	5839	Nokomis, IL
Nokomis Quarry Co. of IL	5840	Nokomis, IL
Heiser Sand & Gravel	5841	N. Canton, OH
Union Quarries, Inc.	5842	Carlisle, PA
Whitehall Cement Mfg. Co.	5843	Whitehall, PA
GAF Corp.	5844	Charmian, PA
Harman Brothers Coal Co., Inc.	5845	Grundy, VA
Sixway Company	5846	Beaver Dam, KY
Southwind Mining Company	5847	Knottsville, KY
Southwind Mining Company	5848	Jetson, KY
Owensboro Coal Dock, Inc.	5849	Owensboro, KY
Spartan Minerals Corp.	5850	Pacolet, SC
Rex Alton and Companies	5851	Vincennes, IN
Umpqua Sand & Gravel	5852	Roseburg, OR
Northern Allegheny Stone Co. Inc.	5853	Curtisville, PA
Superior Preparation Co. Inc.	5854	Hegins, PA
Keystone Filler and Mfg. Co.	5855	Muncy, PA
Trinidad State Jr. College	5856	Trinidad, CO
Enduro Coal Co.	5857	Meta, KY
Driftco Coal Inc.	5858	Drift, KY
Misty K. Mining Co., Inc.	5859	Weeksburry, KY
Meadowbrook Coal Co., Inc.	5860	Lykens, PA
New Leaf Mining Inc.	5861	Grundy, VA
Pinco Mining Co.	5862	Holden, WV



HOLMES SAFETY ASSOCIATION ANNUAL MEETING

THE ANNUAL MEETING OF THE HOLMES SAFETY ASSOCIATION AND THE JOSEPH A. HOLMES SAFETY ASSOCIATION WILL BE HELD ON THE SAME DAY, MAY 22, 1985, AT THE BEST WESTERN FALLS CHURCH INN, 6633 ARLINGTON BOULEVARD, FALLS CHURCH, VIRGINIA.

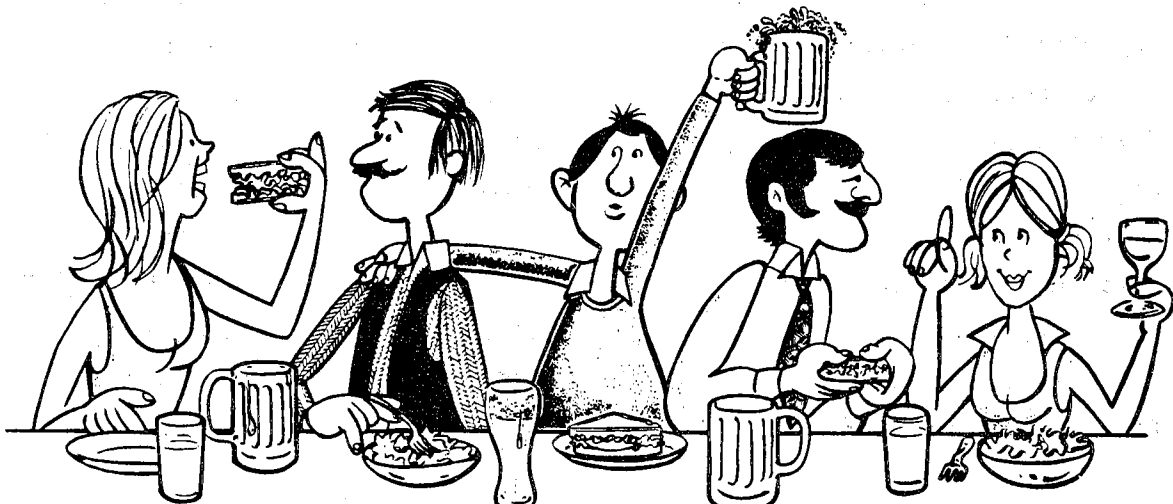
THE MEETING WILL BEGIN WITH THE EXECUTIVE BOARD MEETING AT 9 A.M. FOLLOWED BY THE REGULAR MEETING AT 10 A.M. THE JOSEPH A. HOLMES MEETING WILL CONVENE AT 2 P.M.

THE DISTRICT COUNCIL AWARDS BANQUET WILL BE HELD AT 7 P.M. AWARDS WILL BE PRESENTED TO THOSE COUNCILS WITH THE LOWEST INCIDENCE RATES IN THEIR GROUP.

BANQUET ATTENDEES WILL HAVE A CHOICE OF EITHER TOP SIRLOIN OR RED SNAPPER DINNER. TICKETS ARE \$15 INCLUDING TAX AND GRATUITY.

A HOSPITALITY BAR WILL BE HELD FROM 4:30 - 12 P.M., MAY 21.

PLEASE NOTE THE CHANGE IN LOCATION FOR THIS YEAR.



March 1985

ABSTRACT FROM FATAL ACCIDENT

*This fatality should be discussed at your regular on-the-job safety meeting.



FATAL POWERED-HAULAGE ACCIDENT

GENERAL INFORMATION: The gold and silver was mined at this open-pit mine by the multiple bench method. The ore was drilled, blasted and hauled to large cyanide leach pads with 773-B Caterpillar 50-ton haul trucks.

DESCRIPTION OF ACCIDENT: The victim, a truckdriver, was assigned to operate a water truck. The water tank on the truck held 4,000 gallons and was welded to the frame by using four upright 3-inch heavy steel spring-loaded pipes. A load of water would usually last about 30 minutes when watering the roadways, which were about 55 feet wide and well bermed. The grade of the roadways ranged from 7 to 12 percent.

He was given on-the-job training on the operation of the water truck. The training consisted of riding with the driver and some questions on the operations of the truck.

The victim was observed going down the roadway and using his brakes. An eye witness noticed that the left rear wheels locked up. About 30 minutes later, the victim loaded the water truck again. This was about 5 minutes before the accident. The victim left the water dock which was approximately one-quarter mile from the accident site and proceeded down a 12 percent grade. He apparently lost control of the truck as it proceeded down the roadway at a high rate of speed. The truck struck the rock embankment at such a force that the water tank was torn loose from the truck frame and smashed into the back of the cab and flipped onto the bank to the right side of the truck.

CAUSE OF ACCIDENT: A direct cause of the accident could not be determined. The victim apparently lost control of the truck and possibly some human error contributed to the cause of the accident. During the course of the accident investigation it was observed that a linkage bolt was missing from the brake arm of the maxie air brake on the right rear duels. It was not determined that this was a factor in causing the accident, but should have been in place.

RECOMMENDATION: The driver training program should include the observation of drivers operating different vehicles to assure that individuals know the proper procedures and movement of the vehicles.

-MORE-





H.S.A. SAFETY TOPIC



Motivation For Improvement

Why is our lost-time injury and fatality frequency rate climbing? We could blame it on various things such as the effects of old and young work forces, the labor market, technological development or even the age of anxiety. But do these really answer the question. Are your problems "new" or are they the same problems you had last year.

Let's look at the picture. Recall all the hazardous conditions you encountered last year. How about those near-miss accidents you've experienced? Did you try to study why it was a near miss, or did you just shrug your shoulders and forget it, like water off a duck's back? Think about it -- that near-miss accident could have been the direct-line panic button to a forthcoming lost time or serious accident. The lion's share of injuries happen not because of lack of knowledge but failure to use all the knowledge at your command.

A rule of thumb that works out fairly close is 329 to 1 for every 300 near misses, we have 29 lost-time accidents and for every 29 lost-time accidents, 1 FATAL.

Motivation for improvement is related to achievement -- and to achieve a reduction in lost-time injuries and better the frequency rate, we should first review our accident-prevention program.

HOW GOOD IS YOUR PROGRAM? If you are not sure -- It's time to check!

One very important area to check is the SUPERVISOR.

1. Check areas for improvement

- A. Supervisor's ability to "sell" ideas and methods to their crew.
- B. Supervisor encourages acceptable behavior.
- C. Supervisor's ability to train crew to safely maintain a production output.

1. This is the supervisor's biggest job.

- D. To succeed, time and effort must be spent to know each member of the crew.

-MORE-

- E. One of the greatest motivating factors is the situation that presents a challenge.
- F. One example is the amount of interest created.
 - 1. The amount of interest and recognition shown when an operation has done an outstanding job --- and has a large number of accident-free days.
- G. The challenge is to encourage an enthusiastic attitude toward accident prevention and overcome lack of interest and concern.
- H. Sincerity of supervisor in accident prevention.
- I. Workers follow examples set by their supervisors and if this is just "lip service" to safety -- the crew will the same way.
- J. Sincerity a planned course.
 - 1. Planning
 - 2. Controlling
 - 3. Influencing
- K. The time and effort it takes for the supervisor to get to know each crew member as an individual may be many times repaid.



-MORE-



HOW GOOD IS YOUR ACCIDENT PREVENTION PROGRAM?

Is your answer "Yes" to each of the following questions? If you are not sure, or your answer is "No," then there are yet worlds to conquer for safety.

1. To help prevent accidents, do you train and instruct everyone in safe work methods?
2. Do you have accident-prevention inspections to find unsafe conditions and then correct them?
3. Do you investigate all accidents so that they won't be repeated?
4. Do you have suitable mechanical guards and good protective equipment?
5. When new equipment goes into operation, are its hazards known and is protection provided from them?
6. Does every injury get the proper first aid?
7. Do you keep a record of your accidents and your progress in accident prevention?
8. Do you have safety standards which everyone knows?
9. Does your safety work keep moving and moving toward greater control over accidents?
10. Do you make continuous efforts to create safety-mindedness?
11. Do you reach everyone personally with safety encouragement in the work of preventing accidents?



HOLMES SAFETY ASSOCIATION MONTHLY SAFETY TOPIC

Hearing Aids

The task of motivating employees to protect themselves requires imaginative and innovative approaches. Convincing employees to use barrier guards protective footwear, electrical safety devices, or eye protection has been relatively easy in our plants when compared with the task of convincing some employees to wear hearing protection in a high noise area.

The employee can tangibly detect the advantages of eye protection, for example. Often there is a personal awareness of an accident or near-miss to identify with. Reasoning often works in the opposite direction when you try to convince the employee to wear earplugs or ear muffs, particularly if they have been in a noisy area for a long time.

Plants should adopt hearing conservation programs if there is not one in effect already. Employees should be given audiometric tests as part of the pre-employment physical.

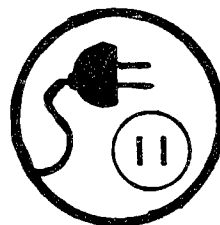
If they are assigned to noisy environments in the plant they should be given an initial test and periodic retests.

Earplugs should be fitted by trained medical personnel who also give talks concerning the importance of fit, ear hygiene and replacement of worn-out hearing protection. This should be followed by films and safety talks to convince employees to use the hearing protectors provided.

There is a hearing test so simple and convincing that many die-hard skeptics are now diligently wearing their plugs or muffs. On the way to work ask each employee to close the car windows to cut down traffic and wind noise and set the radio on a favorite station at the lowest comfortable volume setting. Employees were asked to leave the radio alone when they arrived at work and then following a day in the noisy environment to start home the same way-with the same volume setting. It was their test, on their ears, in their cars, with their radios. This was found to be a convincing approach to motivate employees to wear hearing protection.



Noise



**Electrical
Safety**



H.S.A. SAFETY TOPIC



SAFE OPERATION OF EQUIPMENT ON A LONGWALL MECHANIZED
MINING UNIT*

Some of the requirements for the safe operation of longwall equipment are not to expose oneself and to maintain proper body positioning. Do not walk or stand underneath unsupported roof. Stand clear of moving equipment. Keep hands, feet, fingers and legs from areas where they may get caught or squeezed.

Among the hazards and unsafe practices involved in longwall mining operations are:

1. Injuries to body parts - head, arms, hands, legs and feet, from coal or broken rock falling between roof support shields.
2. Placing hands or fingers on parts of the shearer, plow, or face conveyor panline where they can be struck by fallen rock or coal.
3. Placing hands or fingers on top of roof support shield where they can be caught while pressurizing shields against roof.
4. Possibility of being struck by or caught between roof support shield and face conveyor panline when advancing shields.
5. Connecting roof support shield ram jacks to face conveyor panline clevis rail, using hands and fingers to align holes for locking pin.
6. Crossing over face conveyor panline and walking along working face while mining is in progress.
7. Sudden unexpected movement of equipment, trapping miners between moving shearer and roof support shields.
8. When in the process of changing bits, attempting to cross over moving conveyor to spot bits.
9. Taking shortcuts and performing work on hydraulic lines under pressure, not having full knowledge of pressure system.
10. Performing maintenance and lubrication on energized equipment.

*This article courtesy of Arthur E. Guty, Sr.
Laborer and Vice President
William "Scotty" Groves District Council

-MORE-

The following list of safe practices will prevent these and other types of accidents from occurring:

1. Roof support shields or chocks on longwall faces may have gaps or spaces between them and uniform roof support may not be maintained. Therefore, making a proper observation of the work area before and during operation and the performance of assigned work will limit injuries by loose coal or fallen rock and slate.
2. Make sure your coworker is aware of your next move. Never place arms, hands or fingers on top of roof shield when pressurizing against mine roof. Never put hands on top of steel surfaces where they may be struck by fallen coal, slate or rock.
3. When advancing roof support shields, make sure that legs and feet are properly positioned to prevent from being caught between shield and face conveyor panline. Also, feet must be off mine floor or in a clear position so as not to prevent roof support shield pontoon from sliding on or over them.
4. Hooking up roof support ram jacks to face conveyor panline clevis rails is a hazardous job if not done properly. Using fingers to align the ram jack hole for the insertion of the locking pin should not be done under any circumstances. Proper tools, such as a screw driver or a short bar, will prevent exposure and reduce the chances of a serious accident.
5. Never position your body between moving equipment such as between roof support shield and cutting shearer while in operation. In low areas sudden unexpected movement of the machine can occur due to various conditions. Stop your machine, make sure your coworkers are aware of your intentions.
6. Shear or plow operators should never cross over conveyor systems or change cutting drum bits unless the following is done first:
 - a. Shut off and lock out conveyor.
 - b. Make sure cutting drum is taken out of gear.
 - c. The shearer electrical power breaker should be switched off.
 - d. Make sure adequate roof support is provided in areas where cutting drum bits are to be changed.
 - e. Trim down loose face coal before starting process of changing bits.

-MORE-

7. Performing maintenance or lubrication on any energized equipment should not be performed under any circumstances. STOP!

- a. Make sure equipment is operating properly and is lubricated as required.
- b. Report any defects found.
- c. Make sure equipment is blocked against movement.
- d. Equipment in a raised position should be blocked and secured before attempting to work on or under such equipment.
- e. If electrical work is to be performed, make sure it is locked and tagged out.
- f. Make sure you have the right tools to perform the repair work.

8. Working on any high pressure hydraulic system should not be performed until the pump pressure source is shut OFF and the pressure lines are bled completely before undertaking to uncouple any pressure lines.

9. When walking in confined areas to the working face, such as the stageloader area:

- a. Make sure a good visual examination of the rib conditions is made.
- b. Observe for proper footing to prevent slipping, tripping or falling.
- c. Make sure there is proper clearance between stageloader, rib and roof support dukes (jacks).

* * *

The equipment operator is responsible for the safe operation of equipment and seeing that it is operating efficiently, clean and greased. Report any known defects. The end result from being safety conscious on the job will aid in maintaining a safe work environment for others.

**MAKE A SAFETY
DRIVE IN**



“85”

HOLMES SAFETY ASSOCIATION

CORPS OF ENGINEERS' EXPERIENCE
WITH CONSTRUCTION EQUIPMENT* ROLLING OVER
IN CONTINENTAL U.S., ALASKA, AND HAWAII
DURING A 4-YEAR PERIOD

EQUIPMENT WITH ROLLOVER
PROTECTIVE STRUCTURE

<u>TOTAL NUMBER</u> <u>OF ROLLS</u>	<u>SEVERITY</u>		
	<u>FATAL</u> <u>(NUMBER)</u>	<u>INJURED**</u> <u>(NUMBER)</u>	<u>NOT INJURED</u> <u>(NUMBER)</u>
40	1***	6	33

EQUIPMENT WITHOUT
ROLLOVER PROTECTIVE STRUCTURE

<u>TOTAL NUMBER</u> <u>OF ROLLS</u>	<u>SEVERITY</u>		
	<u>FATAL</u> <u>(NUMBER)</u>	<u>INJURED**</u> <u>(NUMBER)</u>	<u>NOT INJURED</u> <u>(NUMBER)</u>
34	10	13	11

*Equipment includes off-highway trucks, front-end loaders, scrapers, graders, tractors, dozers, rollers, forklifts, dumps and water trucks.

**Physical harm which prevented the employee from reporting for work on the next regularly assigned shift.

***Operator jumped.

These statistics from the Army Corps of Engineers stress the importance of Rollover Protection Structures and should be of significant value to all surface operations.

HOLMES SAFETY ASSOCIATION

Defensive Driving

Defensive driving is driving to prevent accidents and prevention has little to do with who was to blame. It has everything to do with self protection and even survival.

Don't leave your own safety in traffic to the other driver. Do not depend on what you think the other driver will do. When you see a dangerous situation, be prepared to cope with whatever mistake or violation the other driver might commit. Defensive driving is your best chance to avoid auto collisions.

**Say yes to
SEAT
BELTS**



COURTESY OF:

MICHIGAN OFFICE OF HIGHWAY SAFETY PLANNING



HOLMES SAFETY ASSOCIATION MONTHLY SAFETY TOPIC

THE VOICE

I am the voice....the voice behind the wheel. Most of the designers of new safety hardware for the automobile have given up on me. They come up with all sorts of seat belts. It's up to me to buy it. They design anti-skid brakes as an optional feature. It's up to me to buy them.

In their frustration, they have even found a polite name to describe devices that I will have to use whether I want to or not...passive restraints.

I welcome these...let's have more of them. Because the dead and the injured on our highways last year are frightening figures. Bring on more safety, in whatever form, even if it costs a bit more. It will cost less in the long run.

But let's not lose complete sight of the fact that I'm still sitting behind the wheel and making conscious decisions. And by concentrating on my driving I can improve my chances of reaching my destination with my car and myself in one piece.

**BUCKLE UP
WITH
CONFIDENCE**



H.S.A. SAFETY TOPIC

Safety Is Like Salt

Too many of us unconsciously convey the feeling that safety is something for the bulletin board, the monthly safety meeting or something that only the employee relations department has to worry about.

We should think of safety as a necessity in industrial operations--like the nutrients in our food. We may be drifting into erroneous thinking when we place so much emphasis on safety as a separate thing.

The achievement of safety or the avoidance of accidents cannot involve anything different from efficient procedures for conducting any operation. This holds true whether human injury, equipment damage, or product quality is involved.

The first-line supervisor cannot assume that the safety department or the plant manager or the general superintendent will press the button to start the safety program moving.

If the first-line supervisor has the feeling that safety belongs to the employees but that the supervisor does not belong in safety, then the safety program is doomed to failure.

In today's technology, accident prevention work is a necessary and essential part of sound operations. Industrial management also fully recognizes and appreciates that the safety of employees and property cannot be accomplished as a sideline venture.

It can become a reality only through a program designed to make safety a definite and specific working part of every single job. This function falls as a prime responsibility to the first-line supervisor directing the work.

These supervisors are the ones who, through intelligent leadership, can stimulate individual worker responsibility, create a thinking attitude and develop a safety psychology among the workers.

Safety, like salt, gives our operations more taste and zest. Without salt the things we eat would taste stale and flat.

Safety, like salt, preserves from decay. Safety is the antiseptic which keeps our operations from becoming rotten. It may be that some of our working conditions and the danger of being hurt has inspired fear into the hearts of our employees. Be that as it may, it has not purified our operations.

-MORE-

An effective safety program will salt our operations with safety before they become rotten enough to injure someone.

Finally, safety, like salt, loses its identity in its mission.

It is not only that food without salt is insipid, but the salt taste is lost in bringing out the flavor of the separate articles of food.

So it is also with safety and operations. Safety should be so much a part of, and not apart from operations, that like salt in our food, we scarcely know it's there.

Unlike salt, however, it is virtually impossible to add too much safety in our daily lives.

* * * * *

RULES ARE MENTAL SAFETY DEVICES

What's your excuse for being an injury statistic? Did the supervisor assign you to a job that you knew little or nothing about? Did the supervisor give you little or no instruction about how the job had to be done? Was the safe way to get the job done explained to you?

If the supervisor did assign you to a job and did give you instruction in the safe way to perform the job and you still sustained injury, then somewhere in the process you forgot the rules of safety.

Rules, like laws, are provided as guards for people to live and work by. Many times there are situations in which we cannot get everything 100 percent perfect, so we must rely on safety rules.

For instance, take working on a continuous miner where work must be performed under the tail and between the contactor control panel or bumper. You raise the tail by means of hydraulic jacks and you must get into the confined area to work.

But, before doing so, you have a thought that tells you those jacks are not 100 percent safe. So you apply the safety rule of blocking the tail up securely to make sure that nothing is left to chance and you will not become an accident statistic.

Always follow safety rules and take advantage of your mental safety devices.

March 1985

HOLMES SAFETY ASSOCIATION

Comments From The Secretary

TO: MANAGERS AND SUPERVISORS

THE IMPORTANCE OF SAFETY MEETINGS

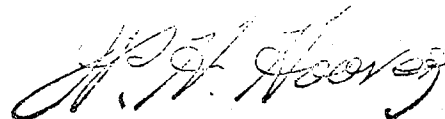
The Holmes Safety Monthly Bulletin is loaded with safety topics to assist you in conducting regularly scheduled safety meetings on various subjects. The ultimate goal is to eliminate the lost-time disabling injuries and fatalities.

Accidents generally involve people and these cause the most concern. However, many accidents occur without personal injuries yet they are costly since they often necessitate repair work or replacement of equipment. The safety topics in the monthly Bulletin are designed to reduce the number of job injuries as well as eliminate equipment accidents and related expenses.

The subject matter in every Bulletin may not be attuned to your safety problems or your particular department. Some will be off-the-job safety, also important to your company. But remember that regular safety meetings keep safety in mind and help develop an attitude among employees that causes them to act safely in the performance of all activities on and off-the-job. Attitude is most important in a good safety program.

It has been aptly said time and time again that no substitute has been found to replace a well-conducted, informative on-the-job safety meeting between supervisors and employees.

William H. Hoover
National Secretary
Holmes Safety Association





H.S.A. SAFETY TOPIC

CHEMICAL BURNS AT COAL MINES

Chemical burns continue to be a source of injuries in the coal mining industry. This report identifies the types of chemicals involved, part of body affected and how the number and severity of these injuries might be reduced.

Data for this analysis were obtained from accident/injury reports in the data base at the Health and Safety Analysis Center, Denver, Colorado.

An analysis was made of 297 injuries reported as depicted in Table 1.

Most of these injuries (62 percent) involved handling materials and 158 (53 percent) of the total number occurred at underground operations.

Burns from alkali compounds accounted for 106 of the incidents. Thirty-two percent of the injuries were attributed to cement or lime and involved abrasions or burns to the upper and lower extremities. These injuries could have been caused by a chemical build up in clothing or direct contact with the compounds. Other alkali injuries (12) were the result of contact with caustic soda, soda ash, potash, radiator flush and resin from roof bolts.

Acid was a reported cause of eye or face burns. Battery acid accounted for 68 of these injuries and resulted from accidental splash or exploding batteries. These injuries indicate that suitable eye or face protection may not have been provided or used. The most common problems appear to be handling or servicing batteries, or improper techniques being used to attach jumper cables when charging batteries. (Figure 1). Other acid contacts produced six burns to the hips from leaking cap lamps and burns to the eye from mine water dripping from the roof.

Sixty-one incidents from hydrocarbons resulted in 51 eye and face injuries due to pressurized systems not being bled or relieved prior to loosening hoses, or hoses bursting under pressure. Hydraulic hoses subject to high pressure or excessive wear warrants a guard or similar device to deflect fluid released. Fourteen other hydrocarbon injuries were caused by diesel fuel, grease, gasoline and creosote coated ties. (Figure 2).

-MORE-

**TABLE 1. - CHEMICAL BURNS BY TYPE AND LOCATION
OVER A TWO-YEAR PERIOD**

	<u>UG</u>	<u>SUR</u>	<u>PREP PLT</u>	<u>TOTAL</u>	<u>PERCENT</u>
<u>Acid</u>					
Batteries					
Sulfur Splash	15	17	5	37	12
Exploding	9	17	5	31	10
Other Acids	6	-	-	6	2
Subtotal	<u>30</u>	<u>34</u>	<u>10</u>	<u>74</u>	<u>24</u>
<u>Alkali</u>					
Cement	59	9	11	79	27
Lime	8	3	4	15	5
Other Alkalis	5	3	4	12	4
Subtotal	<u>72</u>	<u>15</u>	<u>19</u>	<u>106</u>	<u>36</u>
<u>Hydrocarbons</u>					
Hydraulic fluids	15	10	2	27	9
Solvents	5	14	1	20	7
Other Hydrocarbons	7	4	3	14	5
Subtotal	<u>27</u>	<u>28</u>	<u>6</u>	<u>61</u>	<u>21</u>
<u>Other</u>					
(Fire Extinguishers, Blasting Agents, Disinfectants, etc.)	22	12	12	46	16
Subtotal	<u>22</u>	<u>12</u>	<u>12</u>	<u>46</u>	<u>16</u>
<u>Unknown</u>					
Subtotal	<u>7</u>	<u>1</u>	<u>2</u>	<u>10</u>	<u>3</u>
TOTAL	158	90	49	297	100.0

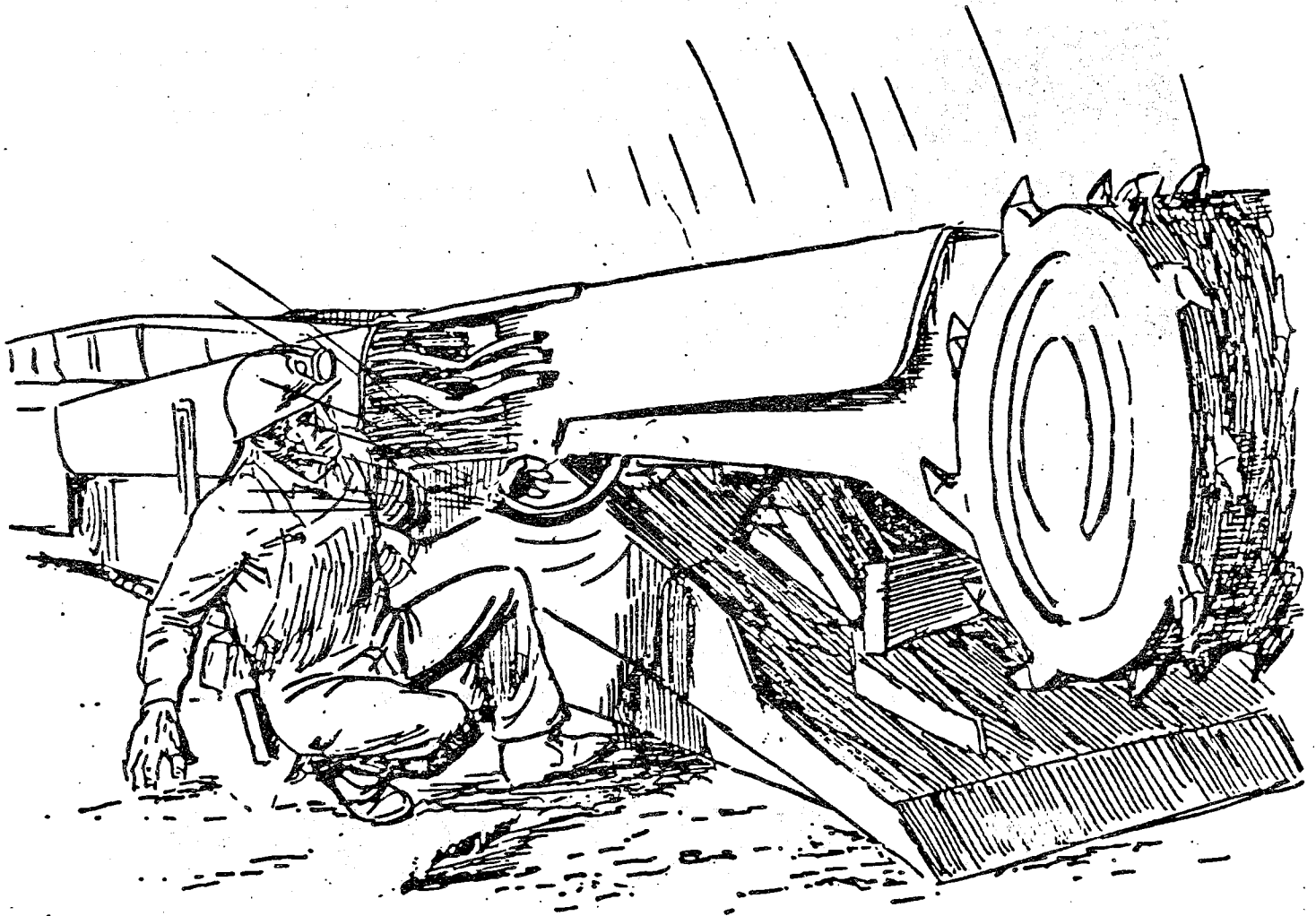
EXPLODING BATTERIES



**Sixty-eight Eye and Face Burns Caused by
Accidental Splash or Exploding Batteries**

Figure 1

**PRESSURIZED SYSTEMS
OR
EQUIPMENT**



**Fifty-one Eye and Face Injuries Caused by
Pressurized Systems or Bursting Hoses**

Figure 2

CONCLUSION

From the number of eye and face injuries, it is apparent there is a necessity for additional face protection. Safety glasses combined with a full face shield or splash proof goggles should be used during the handling of batteries or battery acids.

Appropriate protective clothing and the use of a barrier cream or lotion would improve protection while working in cement or lime. The wearing of clean clothing daily would eliminate chemical buildup and reduce the number of abrasion and burn injuries.

The importance of personal protection while handling batteries, battery acid, cement and lime should be included in the hazard recognition training required at each mine. Additionally, this training should emphasize safe work practices on the maintenance of pressurized systems and batteries and the use of proper personal protective equipment.

Safety Slogan--
Safe Work Rules Are
For Your Protection -
Follow Them!

HOLMES SAFETY ASSOCIATION



Notebook

1. THE PENNSYLVANIA BITUMINOUS COUNCIL ANNUAL BUSINESS DINNER MEETING TO BE HELD MARCH 22, 1985, at 7:00 p.m. AT THE OMNI CIVIC CENTER, INDIANA, PA.

2. OHIO SAFETY CONGRESS-UMWA TO BE HELD APRIL 3, 1985, AT 9:30 a.m. AT THE CONVENTION CENTER IN CINCINNATI, OHIO. NATIONAL SECRETARY HOOVER WILL ADDRESS THE CONGRESS ON THE HOLMES SAFETY ASSOCIATION.

3. WEST VIRGINIA STATE DISTRICT COUNCIL MEETING TO BE HELD APRIL 6, 1985, AT THE LAKEVIEW COUNTRY CLUB, MORGANTOWN, WV.

4. AMERICAN MINING CONGRESS COAL CONVENTION IN PITTSBURGH, PA. TO BE HELD AT THE DAVID L. LAWRENCE CONVENTION/ EXPO CENTER, MAY 12-15, 1985.

5. THE HOLMES SAFETY ASSOCIATION AND THE JOSEPH A. HOLMES SAFETY ASSOCIATION MEETINGS TO BE HELD AT THE BEST WESTERN FALLS CHURCH INN, FALLS CHURCH, VA. THE MEETINGS WILL BE HELD ON MAY 22, 1985.

6. THE INDIANA DISTRICT COUNCIL MEETING HELD AT THE OMNI CIVIC CENTER, ON JANUARY 18, 1985, HAD 105 PERSONS IN ATTENDANCE.

Members: Short news of your council activities can be included in the notebook. Information needed two months in advance. Forward to Louise in Pittsburgh.

MSHA/Holmes Safety Association
4800 Forbes Avenue
Pittsburgh, Pennsylvania 15213

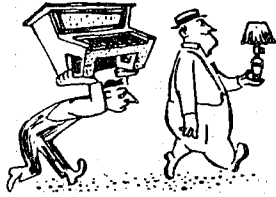
The Last Word

Even the woodpecker owes his success to the fact that he uses his head.

* * * *

If success made the heart swell like it does the head, this would be a far better world.

* * * *



* * * *

Old-timer reminiscing: "I was born on Main Street. I lived there before the village macadamized it, before Henry Ford motorized it, before the unions organized it, before the chain stores standardized it and before the Federal Government subsidized it."

* * * *

The difference between death and taxes is that death doesn't get worse after every session of Congress.

* * * *

As soon as we marry that person in a million, we start wondering what the other 999,999 might have been like.

* * * *

Steno: "When can I expect my raise?"

Employer: "When you raise to your expectations."

Two employers were talking. Said one, "I hear that young man I employed last week is dishonest." "Oh," replied the other, "you shouldn't judge by appearances." "I'm not. In this case I'm judging by disappearances."

* * * *



* * * *

Definition of a chaperone: "One who's too old to get into the game, but still tries to intercept the passes."

* * * *



* * * *

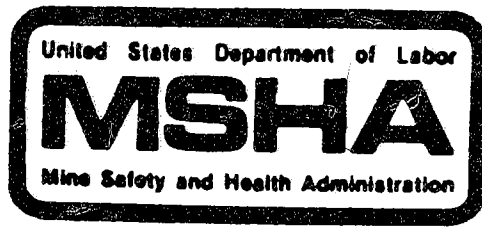
A fiery-tempered lawyer dictated the following letter: "Sir, my stenographer, being a lady, cannot type what I think of you. I, being a gentleman, cannot think it. You, being neither, will understand what I mean."

POSTAGE AND FEES PAID
U.S. Department of Labor

LAB 441

MSHA, Office of Holmes
Safety Association
Educational Policy & Development
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:

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

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

The following is the different award criteria:

Type "A" Awards - For Acts of Heroism

The awards are medals with Medal of Honor Certificate.

Type "A" - For Acts of Heroic Assistance

The awards are Certificates of Honor.

Type B-1 Awards - For Individual Workers

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

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

Type B-2 Awards - For Individual Officials

(For record of group working under their supervision)

The awards are Certificate of Honor.

Type C Awards - For Safety Records

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

The awards are Certificate of Honor.

Other Awards - For Individual Workers

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

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

Special Awards - For Small Operators

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

The awards are Certificate of Honor!

Contact: HSA Office

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

BULK RATE
POSTAGE & FEES PAID
DOL
PERMIT NO. G-59