JUNE 1984

HOLMES SAFETY ASSOCIATION

E PLURIBUS UNUM

SAFETY EFFICIENCY

MINERAL INDUSTRIES

BULLETIN

ACCIDENTS: A GOOSE EGG SCORE IN '84

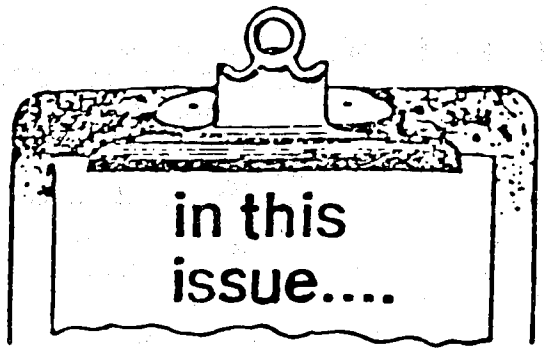
THIS SAFETY BULLETIN CONTAINS SAFETY ARTICLES ON A VARIETY OF SUBJECTS, FATAL ACCIDENT ABSTRACTS, STUDIES, POSTERS AND OTHER SAFETY INFORMATION FOR PRESENTATION TO GROUPS OF MINE AND PLANT WORKERS.

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.

HOLMES SAFETY ASSOCIATION



JUNE 1984

June 1984

HOLMES SAFETY ASSOCIATION MONTHLY SAFETY TOPIC

Gibson Materials Co.
Gibson Materials
Gibson City, IL

Fairfield Builders Supply
Fairfield Builders
Lafayette, IN

B. G. Hoadley Quarries
B. G. Hoadley Quarries
Bloomington, IN

Bybee Stone Co.
Bybee
Ellettsville, IN

Arkansas Dept. of Labor
Labor-Training & Education
Little Rock, AK

Brad Mar Inc.
Brad Mar
Beaver Dam, KY

Lewis Creek Dock Inc.
Lewis Creek
Rockport, KY

Leitchfield Paving
231 Tipple
Morgantown, KY

Zielinski Constr. Co.
Cedar Ridge
Knottsville, KY

C Crabtree Const. Co.
C Crabtree Const.
Jetson, KY

W. W. Coal Co.
W. W.
Morgantown, KY

J. H. Shears' Sons Inc.
J. H. Shears' Sons
Hutchinson, KS

Holliday Sand
Holliday Sand
Overland Park, KS

East Texas Stone & Asphalt
East Texas Stone & Asphalt
Oakwood, TX

Frams Material
Frams Material
McHenry, IL

Herky's Trucking Inc.
Rocky Road Pit
Island Creek, IL

Eureka Sand & Gravel Inc.
Eureka Sand & Gravel
Eureka, IL

Henderson Co. Stone Co.
Henderson Stone
Media, IL

Porter Bros. Inc.
Porter Bros. Pecatonica
Rockford, IL

Woosung Quarry Products
Bruce Lambert
Woosung, IL

Chuck Eller Trucking
Chuck Eller
Milledgeville, IL

W. C. Babcock Const. Inc.
W. C. Babcock Const.
Reensselaer, IN

J & M Gravel
J & M Gravel
Etna Green, IN

Allen County Aggregates
Allen County Aggregates
Fort Wayne, IN

Fisher Run Coal Inc.
Fisher Run
Bergoo, WV

Derwacter S & G
Bellville
Bellville, OH

E. C. #1
E. C. #1
Clearcreek, WV

E. C. #1
E. C. #2
Clearcreek, WV

R & F Coal Inc.
R & F Coal
Danese, WV

Hurlbut Calcium & Chemical
Hurlbut Calcium & Chemical
Green Bay, WI

C & L Processing
#1 Tipple
Morley, TN

Dixie Pine Coal Co.
Dixie Pine Coal
Anthros, TN

Madisonville Vo-Tech School
Experimental Mines No. 1
Madisonville, KY

Moline Consumers Co.
Valley Plant No. 7
St. Augustine, IL

Aptakisic Sand Corp.
Aptakisic Sand
Aptakisic, IL

Thelen Sand & Gravel
Thelen Sand & Gravel
Antioch, IL

Unimin Corporation
Unimin Oregon
Oregon, IL

Oregon Stone Quarries
Oregon
Oregon, IL

Wastone, Inc.
Wastone
Dixon, IL

Nelson S & G Company
Dale Bennett
Rock Falls, IL

Construction Materials
Gravel Div.
Spring Bay, IL

C. J. Kutz
C. J. Kutz Quarry
Forreston, IL

Wilson Quarries
Wilson Quarries
Horsepasture, VA

Lonesome Pine Mining
Lonesome Pine
Wise, VA

Clinchfield Coal Co.
Moss 3-A-2
Dante, VA

Clinchfield Coal Co.
Moss #4
Dante, VA

Clinchfield Coal Co.
Moss 4-A Mine
Dante, VA

H. M. McGlothlin Coal
H. M. McGlothlin #1
Rowe, VA

I.M.C.
I.M.C.- Green Mountain
Green Mountain, NC

I.M.C.
I.M.C.-Spruce Pine
Spruce Pine, NC

U & H Enterprises, Inc.
U & H Enterprises
Summerlee, WV

Elkhorn Stone Company
Elkhorn Stone
Elkhorn City, KY

I.M.C.
I.M.C.- Aberdeen
Aberdeen, MS

I.M.C.
I.M.C.-Hamilton
Hamilton, WA

I.M.C.
I.M.C.- Bartow
Bartow, FL

Pfizer Inc.
Pfizer
Adams, MA

I.M.C.
MC-Esterhazy
Esterhazy, CN

I.M.C.
I.M.C.-Havelock
Havelock, CN

I.M.C.
I.M.C.-Belle Fourche
Belle Fourche, SD

Southern Clay Products
Mr. Tim's
Palestine, TX

Betty B Coal Co.
Betty B. Coal - No. 10
Mavisdale, VA

Indiana Cal-Pro Inc.
Indiana Cal-Pro
Stinesville, IN

Bevins Coal Co., Inc.
Benvins Coal
Turkey Creek, KY

Meyer Material Co.
Meyer Material
Des Plaines, IL

Southwestern Portland
Fairborn
Fairborn, OH

Apple Grove Plant
Letart Falls
Letart Falls, OH

Bradford Bros.
Bradford Bros.
Pineville, WV

Washington Const. Co.
Caribou
Soda Springs, ID

Beckley Magnetite Inc.
Beckley Magnetite
Beckley, WV

Warner Company
Warner - Torrance Quarry
Blairsville, PA

Warner Company
Warner - John T. Dyer
Birdsboro, PA

Warner Company
Cedar Hollow Plant
Devault, PA

Warner Company
Bellefonte Mine & Mill
Bellefonte, PA

Warner Company
Gentzel Quarry
Bellefonte, PA

Warner Company
Union Furnace Quarry
Tyrone, PA

Warner Company
West Side Plant & Pit
Morrisville, PA

Warner Company
New Jersey Silica
Millville, NJ

U. S. Steel Mining Co.
U. S. Steel
Somerset, CO

Elmhurst-Chicago Stone
Illinois Wisconsin
South Beloit, IL

Wilson & Shipler, Inc.
Wilson Shipler
South Beloit, IL

Cessford Const. Co.
Biggsville Quarry
Biggsville, IL

Meyer Material Co.
McGraw Pit
Des Plaines, IL

Meyer Material Co.
Redi-Mix
Des Plaines, IL

Meyer Material Co.
Dundee Pit
Des Plaines, IL

Lone Star Ind. Inc.
Lone Star Oglesby
Oglesby, IL

Meyer Material Co.
Meyer Material Vicks Quarry
Des Plaines, IL

Vulcan Materials Co.
Boyd Sand Plant
Paradise, TX

Betty B Coal Co.
Betty B Mine #2
Coeburn, VA

Betty B Coal Co.
Betty B Mine #4
Coeburn, VA

Betty B Coal Co.
Betty B Mine #8
Coeburn, VA

Southfork Energies Inc.
Southfork Energies
Stone, KY

Red River Fuels Inc.
Red River Fuels
Red River, KY

Cedar City Energies, Inc.
Cedar City Energies
Raccoon, KY

Letart Falls
Letart Falls
Letart Falls, OH

Sidney Sand & Gravel Co.
Sidney
Sidney, OH

Domtar Industries, Inc.
Domtar Industries
Grand Rapids, MI

Superior Coal Company
Superior
Lovilia, IA

Tidewater Crushed Stone
Tidewater
Richmond, VA

Valley View Industries
Valley View
Cornell, IL

Winn Construction Co., Inc.
Poverty Mines
Calhoun, KY

Winn Construction Co., Inc.
Johnson Mines
Knotsville, KY

Columbia Rock Products Co.
Columbia Rock Products
Columbia, TN

June 1984

HOLMES SAFETY ASSOCIATION MONTHLY SAFETY TOPIC

The 3 T's of Roof Control

All of us are familiar with the 3 R's from our school days, readin', 'ritin, and 'rithmetic. Well just as important to miners every day are the 3 T's. Test, Take-down, and Timber.

There are two methods of "testing" the roof: The visual method and the sound and vibration method. Visual roof examination is looking at the roof to see if there are breaks, slips, pots, or rolls readily apparent. The disadvantage of visual examination is that many of the roof weaknesses are not easily detected by observation. Watching bad roof never has prevented a roof fall. Although visual inspection of roof is a necessity, this inspection will not suffice for adequate roof control.

The sound and vibration method is at the present time the best known method of roof inspection. The proper way to detect dangerous roof by this method is to place the bare finger tips against roof, with a slight pressure, and strike the roof with a solid testing rod. The first blows should be light, then increased in force until a solid blow has been struck. The feel of the vibration in the finger tips and the "drummy" sound of the roof are the ways to detect unsafe roof.

Once the unsafe roof has been detected, the next "T" is "take-down." All loose or unsafe roof should be taken down immediately. It is very important in taking down loose unsafe roof that the proper tool be used and the worker be positioned in a safe place.

The final "T" is "timbering." Regardless of the method of timbering, it is only as good as the people doing the timbering. Any timber worth setting is worth setting right. When wood timbers are used they must be:

1. Of the proper size and length.

2. Set tight.

3. Set according to plan.

4. Used within their limitations.

The same general rules apply when roof bolting is utilized. Roof bolts must be:

1. Proper length.

2. Installed according to plan.

-MORE-

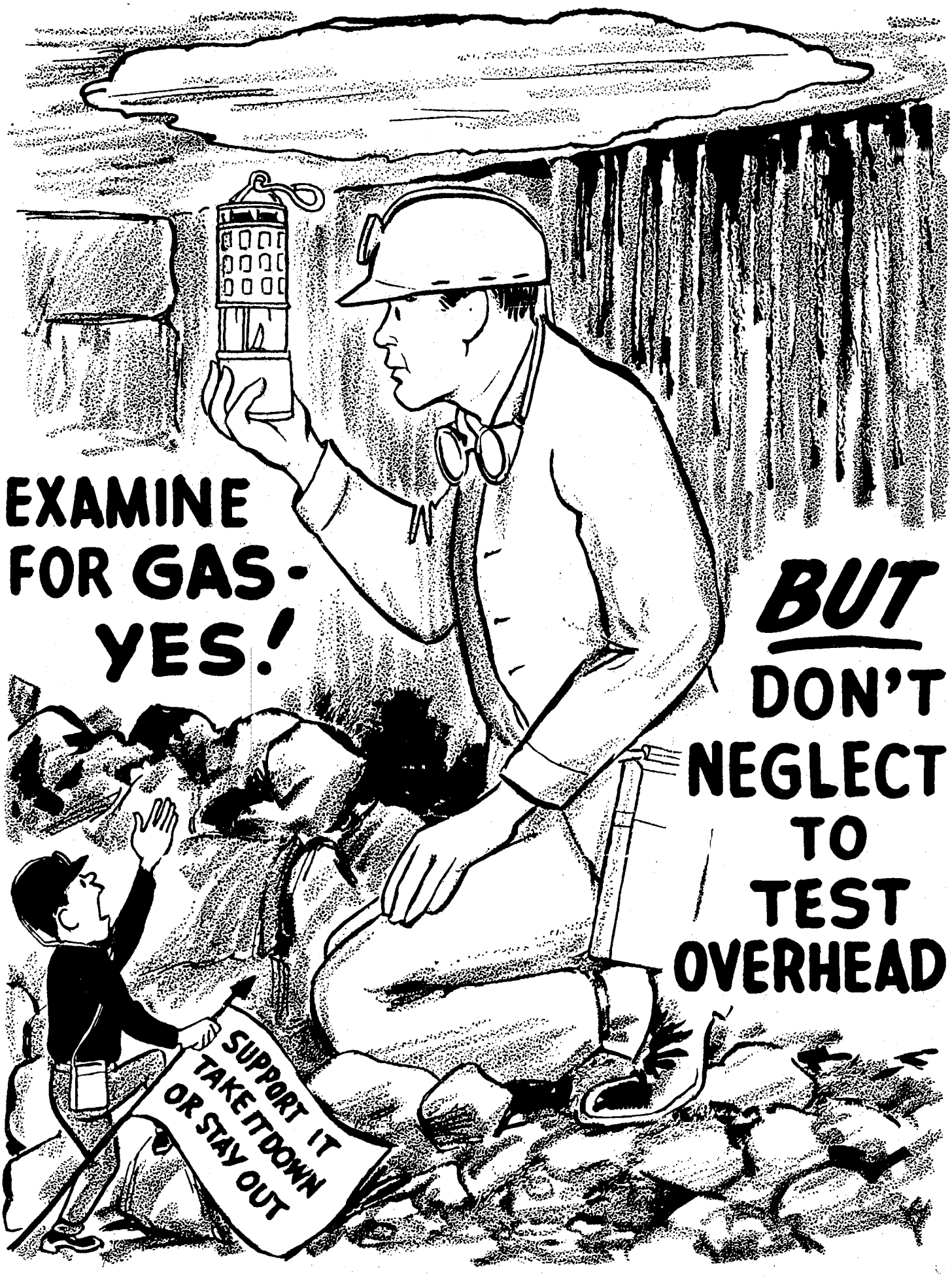
3. Installed with the proper torque.

4. Installed at the proper time.

5. Installed at the proper depth.

6. Used within their limitations.

If we remember the 3 "T"s of roof control -- Test, Take-down and Timber -- we are increasing our chances and the chances of our co-workers for a long and fruitful life.


EXAMINE FOR GAS - YES!
BUT DON'T NEGLECT TO TEST OVERHEAD
SUPPORT IT TAKE IT DOWN OR STAY OUT

REAP

June 1984

Roof Evaluation - Accident Prevention

CAUSE OF ROOF-FALL ACCIDENTS

Falls of roof, face and ribs still continue to be the largest cause of fatal and lost-time accidents in the Pennsylvania bituminous coal mines. Many of the roof-fall accidents occur because the company's own roof-support plan is not followed. In a large number of cases of roof-fall accidents, workers and mine officials lost their lives or were seriously injured because known safety measures such as proper roof tests were neglected. Evaluations of roof conditions were not made, safety posts or jacks were not set and taking down or supporting loose roof was postponed on the assumption that the roof would hold a few minutes longer until some small job was done.

It certainly is tragic enough to have accidents from unforeseen or "unavoidable" causes but it is folly of the worst kind for miners to loose their lives because of failure to do what we know must be done to prevent roof-fall accidents.

It is a human trait for workers to follow the line of least resistance and use less than the required roof supports. This makes it necessary that the mine official not only give instructions to the miners as to safe roof support procedure but to insure that the instructions are carried out.

If we are to reduce roof-fall accidents, the workers and mine officials must comply with the adopted timbering plan and they must not take chances of exposing themselves to danger. Remember, there is no substitute for safe timbering and safe working practices. Also, remember the three T's for safety--Test-Take Down-or Timber.

Accident prevention is a matter of anticipation; it means the removal of hazards before and not after the accident. It means always to think and be on the alert to do our jobs safely because danger is a challenge which we must meet intelligently. I would like to urge the wholehearted cooperation of each and everyone, that we all dedicate a little more effort in a drive against accidents, so that the safety, health and happiness of all of our families may be respected and protected and our dreams and plans for the future for our loved ones be realized.

Let us not fail in this drive for safety; let us strengthen and not weaken in the proper discharge of our daily duties. Let's get together as a team for safety.

June 1984

HOLMES SAFETY ASSOCIATION MONTHLY SAFETY TOPIC

MANDATORY SAFETY STANDARDS, SURFACE COAL MINES AND SURFACE WORK AREAS OF UNDERGROUND COAL MINES

SUBPART S

TROLLEY WIRES AND TROLLEY FEEDER WIRES SECTIONS 77.1800 - 77.1802

In today's session we will discuss the safety standards as they pertain to trolley wires and trolley feeder wires. Trolley wires and trolley feeder wires are uninsulated conductors of large amounts of current, which when touched may cause severe injuries or a fatal shock. But how can this occur when the trolley wires are located high off the ground and/or guarded? How many of you have walked under an unguarded trolley wire carrying a shovel, pick, slate bar or other metal object on your shoulder? How many of you have seen a section of trolley wire that protruded below the guarding, or the guarding has been torn off and not replaced promptly? How many of you have worked around an energized trolley wire and not put up temporary guarding because you were only going to be there for a minute and you knew you could be careful during that period of time? Past accident records reveal that the above conditions or practices have been present in numberous fatal electrical accidents. Electrical shock is very dangerous. How well you avoid hazards associated with trolley wires and trolley feeder wires depends on you.

Section 77.1800 Cutout switches.

Trolley wires and trolley feeder wires shall be provided with cutout switches at intervals of not more than 2,000 feet and near the beginning of all branch lines.

It is the intent of Section 77.1800 to require trolley feeder wires, parallel trolley wires, cutout switches shall be installed in both circuits at the same point. Where it is necessary to use a cutout switch in each circuit they shall be installed reasonably close to facilitate the opening of both circuits. The practice of using a jumper to bridge a removed section of trolley wire as a means of disconnecting power shall not be accepted.

Section 77.1801 Overcurrent protection.

Trolley wires and trolley feeder wires shall be provided with overcurrent protection.

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Section 77.1801-1 Devices for overcurrent protection.

Automatic circuit interrupting devices that will deenergize the affected circuit upon occurrence of a short circuit at any point in the system will meet the requirements of Section 77.1801.

Section 77.1802 Insulation of trolley wires, wires; guarding of trolley wires and trolley feeder wires and bare signal trolley feeder wires.

Trolley wires, trolley feeder wires and bare signal wires shall be adequately guarded:

(a) At all points where persons are required to work or pass regularly under the wires; and

(b) At man-trip stations.

The Secretary or his authorized representative shall specify other conditions where trolley wires and trolley feeder wires shall be adequately protected to prevent contact by any person, or shall require the use of improved methods to prevent such contact. Temporary guards shall be provided where trackmen and other persons are required to work in proximity to trolley wires and trolley feeder wires.

It is the intent of Section 77.1802 that guarding shall be done with wood, plastic or other substantial nonconductive material and be firmly secured. The mine inspector shall require additional guarding of trolley wires at all locations where a potential shock hazard exists.

ABSTRACT FROM FATAL ACCIDENT

June 1984

HOLMES SAFETY ASSOCIATION
MONTHLY SAFETY TOPIC

MULTIPLE FATAL ROOF FALL ACCIDENT

GENERAL INFORMATION: A roof fall occurred at the face of the No. 3 entry resulting in the death of a cutting-machine operator and a general laborer. The victim had about 15 years mining experience, the last 6 months as a cutting-machine operator. The general laborer had over 13 years mining experience, the last 4 months as a general laborer. The accident occurred during second mining when they were cutting the final stump of a pillar.

CAUSE OF ACCIDENT: The victim was assisting in setting breaker and roadway posts in preparation for cutting the final stump of a pillar on the left side of the No. 3 entry.

When the posts were set, the victim trammed the cutting machine into position. Within a few minutes after the cutting machine entered the place, a massive section of roof fell without warning, instantly killing the victim.

CONCLUSION: The fall occurred without warning about 3 minutes after cutting operations began. The exact number and placement of posts and the dimensions of the final stump could not be determined because the operator did not clean up or reopen the area. The cutting machine was equipped with a canopy and the cutting machine operator apparently got out of the operator's compartment and tried to outrun the fall.

A major portion of the fall separated above the anchorage point of the 30-inch roof bolts.

The approved roof control plan was revised, seven days previous to the accident to allow total pillar recovery. The original plan required leaving the four corner 8-foot square stumps.

The accident and resultant fatalities occurred due to management's failure to properly evaluate the condition of the roof.

ABSTRACT FROM FATAL ACCIDENT

June 1984

HOLMES SAFETY ASSOCIATION
MONTHLY SAFETY TOPIC

FATAL EXPLOSIVES ACCIDENT

GENERAL INFORMATION: A blaster was fatally injured when a blasthole he had loaded with a primer and blasting agent was drilled into and prematurely detonated in a trona mine operation. A room-and-pillar method of mining was used, utilizing continuous and bore-mining machinery and conventional methods consisting of drilling and blasting.

DESCRIPTION OF ACCIDENT: The victim performing his normal duties as shot firer or blaster was instructed to go to No. 4 room to load and blast. This round had been completed by the driller just previously. The victim was to load the No. 4 room face first and then the No. 4 room crosscut left. Working from right to left in the intersection was standard procedure.

The victim loaded only primers in the No. 4 room face. He then proceeded to the No. 4 room at 30 crosscut face and charged the blasthole with primers and blasting agent. At the time he proceeded to load the No. 4 room at 30 crosscut face, the drill was operating on the opposite side of the crosscut in the No. 5 room at 30 crosscut right.

The blaster's helper at this time proceeded to wire the No. 4 room at 30 crosscut left round under the direction of the victim. He was wiring in the bottom left lifter hole when the dentonation occurred. The detonation was caused by the drill intersecting the loaded bottom right lifter hole.

When the detonation occurred the victim was rolling up the loading hose for the powder monkey. Fly rock from the detonation hit the victim on the head and back.

CAUSE OF ACCIDENT: The cause of the accident was the failure of the victim to follow established company procedures for charging blastholes and failure to take cognizance of the fact that a drill was operating in the opposite face.

RECOMMENDATIONS: 1. Poor work habits must be corrected.
2. Work areas should be inspected frequently, especially during periods which have the greatest accident potential.

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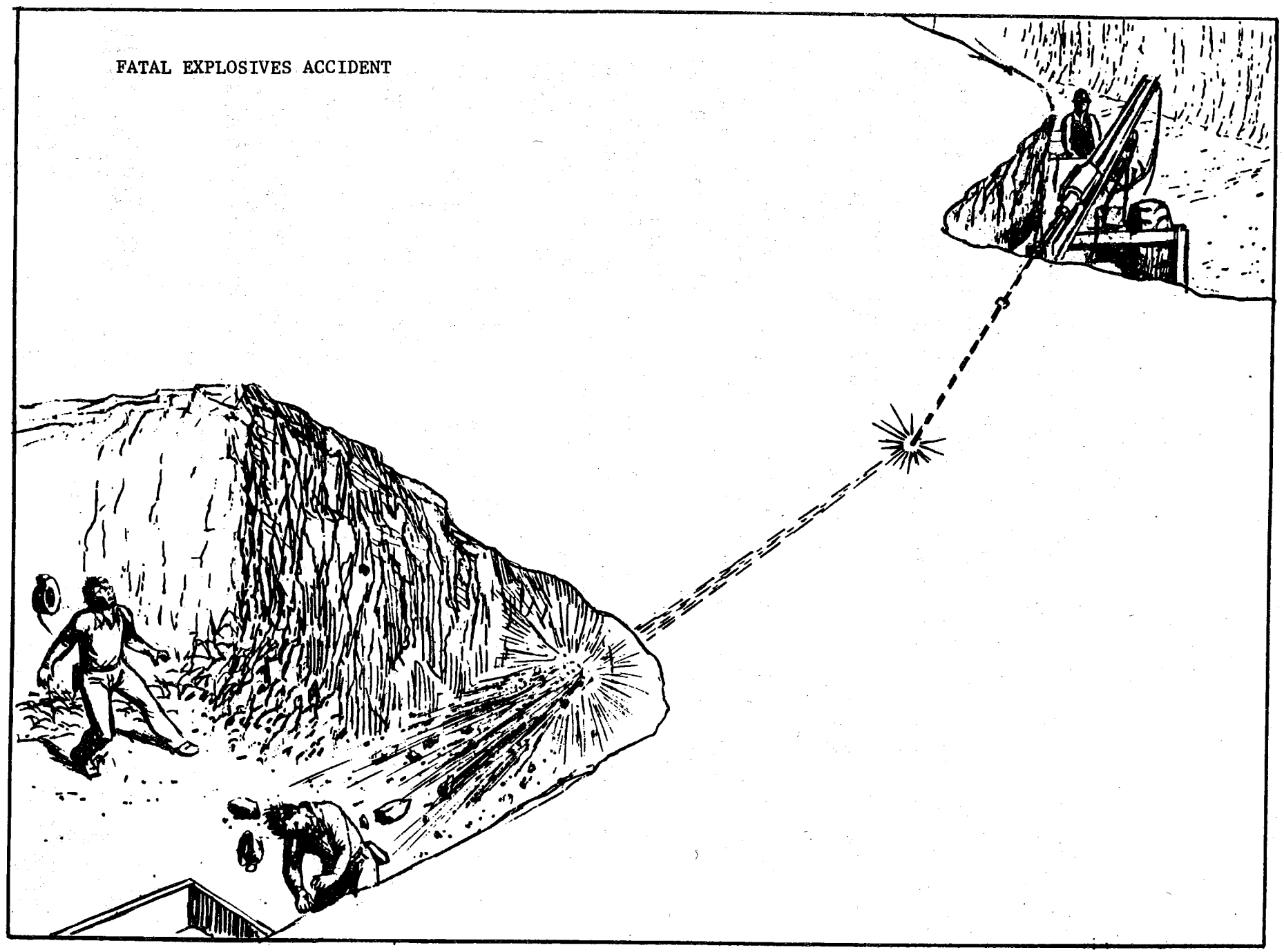
FATAL EXPLOSIVES ACCIDENT



June 1984

HOLMES SAFETY ASSOCIATION MONTHLY SAFETY TOPIC

Establish Goals

In mining complexes where goals are established by management for the safe operation of all departments, these goals serve as a target for accomplishments, with the results that all persons are more conscious of their responsibility and exert a special effort to meet the goals.

We know by definition that an accident is an unplanned event. If we are having accidents, we can assume that someone did not take the time to plan. They didn't plan what needed to be done to prevent the accident. Plans must be developed to meet these goals and controls must be established to determine the degree of accomplishment in meeting the goals.

Goals, then, are something you want to measure by or be measured by. Some are measured more easily than others; those not easily measured are often neglected and the easily measured goals become key goals. A key goal can only be achieved by daily personal attention.

First, we need to know the attitudes and motivations of people. Second, we need to know specifically and in detail what behaviors are required to perform the job--which behaviors are potentially unsafe and in what ways. People will support that which they helped to create.

Being systematic in determining causes of accidents is a big help in achieving a goal because an accident that has occurred will recur and recur until all of the causes are eliminated.

Corrective action steps are the next concern and training programs must be sound. An interesting example explaining the difference between training and education was recently written: "A monkey can be trained to ride a bicycle but he is only educated when he knows where he is going."

People avoid mistakes if they know why. Telling why satisfies curiosity and helps stop unsafe acts. People act according to what they believe and what they think you expect of them.

There is an answer to preventing accidents but it's not complex and not secret. Too many times we miss the answer because we are looking for a "gimmick" solution that will be a magic cure-all for our problems and at the same time not require any effort or interfere with our present methods. The goal of any

-MORE-

management is maximum production and productivity through effective and efficient operations. To apply accident prevention fundamentals is to optimize safe human performance, thereby increasing efficiency and effectiveness of operations.

When we achieve and maintain high safety performances, any assessment made in respect to safety performance is really an assessment of the operations environment and efficiency. A lower accident rate, like efficient production is a consequence of a job well done.

June 1984

HOLMES SAFETY ASSOCIATION MONTHLY SAFETY TOPIC

SUPERVISORY FATALITIES IN COAL MINING

1973 - 1981

An analysis was made of fatal injuries occurring to supervisors in coal mining industries (underground, surface, preparation plants) between the years 1973-1981. Mine supervisors have the highest number of fatal injuries followed by mine superintendents. Accident analysis shows that a significant number of these accidents can be characterized as resulting from shortcutting or failure to follow safe work practices. These activities not only result in death or serious injury to supervisors but collectively reflect an unacceptable attitude by supervision and management toward safety.

As the fatal investigative report for each fatality was reviewed, it was found that the most frequently identified activity remains such non-supervisory activities as maintenance and repair, operating equipment and setting props or timber. Examples of unsafe acts or conditions permitted by managers and supervisors which were contributing factors to these fatal accidents are:

(1) Working in a hazardous area or in an unsafe position--supervisors are entering dangerous areas or positioning themselves unsafely.

(2) Failure to follow safe roof control practices.

(3) Operating mining equipment in an unsafe manner.

(4) Failure to work in a safe manner (unsafe act), and

(5) Failure to de-energize or block power systems.

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Table 1 categorizes causes leading to fatal injuries. Categories are listed in descending order of occurrence.

Table 1. - Causes Leading to Supervisory Fatals, Coal Mining, 1973-1981

CATEGORY	Number of Fatals 1973-1978	1979	1980	1981	Total	Percent
Working in area of recognizable hazard or working from an unsafe working position	46	7	20	18	91	48.6
Failure to follow roof control plan	46	16	3	2	67	35.8
Failure to clear area prior to operating equipment or failure to control equipment	14	1	1	0	16	8.6
Failure to de-energize or block out power source	8	2	0	3	13	7.0
TOTAL	114	26	24	23	187	100.0

-MORE-

Table 2 lists 62 percent of the accidents as occurring while performing non-supervisory type work of which 28.8 percent were roof fall related. These activities indicate that supervisors were attempting to expedite production by performing non-supervisory tasks.

Table 2. - Supervisory Fatalities by Activity, 1973-1981

Activity	Supervisory Fatalities					Percent
Non-Supervisory	1973-1978	1979	1980	1981	Total	Total
Maintenance and repair	38	6	4	8	56	29.9
Operating equipment	30	5	4	4	43	23.0
Setting props or timber	6	4	2	0	12	6.4
Hand loading coal	2	3	0	0	5	2.7
SUBTOTAL	76	18	10	12	116	62.0
Supervision						
Supervising or observing crew	17	5	6	9	37	19.8
Walking through or standing in a hazardous area	20	4	8	2	34	18.2
SUBTOTAL	37	9	14	11	71	38.0
TOTAL	113	27	24	23	187	100.0

-MORE-

Table 3 shows that 57 (30.5 percent) of the supervisory fatalities involve supervisors with less than two years experience in that capacity. This may indicate mine management has not taken steps to insure that new supervisors are trained in techniques of accident prevention, safety rules, regulations and safe job procedures. This relatively short experience as a supervisor may help to explain the victim performing non-supervisory tasks by reverting to former work.

Table 3. - Supervisory Fatalities by Experience as a Supervisor, 1973 - 1981

Supervisory Experience in Years	No. Fatals	Percent
0 - 2	57	30.5
3 - 4	33	17.6
5 - 9	35	18.7
10 - 14	32	17.1
14 or more	2	1.1
Unknown	28	15.0
TOTAL	187	100.0

Data in Table 4 shows that 11 percent of the supervisors that were fatally injured had less than two years mining experience. This lack of experience may have prevented the victim from recognizing the hazards contributing to the accident. Although these data are not normalized, it would be reasonable to assume that only a few supervisors have less than two years mining experience; therefore, this category is incurring more accidents than could be expected.

Table 4. - Supervisory Fatalities by Mining Experience 1973 - 1981

Total Years Mining Experience	No. Fatals	Percent
0 - 2	21	11.2
3 - 5	19	10.2
6 - 10	40	21.4
11 - 15	31	16.6
15 or more	76	40.6
TOTAL	187	100.0

-MORE-

Table 5 shows that mine foremen lead all other supervisory occupations involved in fatal accidents. Analyses show 130 (69.5 percent) supervisory fatal injuries were incurred by mine foremen, followed by company officers/mine owners, 35 (18.9 percent); and superintendents, 22 (11.8 percent). These data are not normalized but it is most likely that foremen comprise the largest population group.

Table 5. - Supervisory Fatalities by Occupation, 1973 - 1981

Supervisors	No. Fatals	Percent
Foremen	130	69.5
Company Officer/Mine Owner	35	18.7
Superintendent	22	11.8
TOTAL	187	100.0

CONCLUSION

The large number of coal mine supervisor fatalities may possibly be explained by the following: inexperience as supervisors and miners, performing non-supervisory work rather than securing qualified personnel to do the work and working in an unsafe manner. The current requirement to train miners would seem to imply that supervisors should receive training in safe working practices beyond that given all miners. The broader training of supervisors as opposed to the task-specific training of the miner should help prevent accidents in non-supervisory tasks.

June 1984

HOLMES SAFETY ASSOCIATION MONTHLY SAFETY TOPIC

Accidental

Accident Prevention

Why do we insist on calling things accidents when people get hurt? Maybe we should think about what an accident is.

Reminds me of the day my next-door neighbor fell off his 20-foot extension ladder. He had one foot of it on the ground and the other foot on the concrete sidewalk. He reached out to the side a little too far to paint a shutter and the next thing he knew he was right in the middle of his evergreens. He said he had an accident but it looks to me like the only accidental part was that he didn't break his neck as well as his arm.

One day on the job John had to do a little repair work on a compressor. As usual, he had his rear pockets jammed with tools, including a 12-inch screwdriver. As he was crossing the storage yard he tripped over a piece of 2-inch pipe and fell, ramming the tip of the screwdriver about an inch into his back. They said he had an accident, but I say it was merely accidental he wasn't permanently injured.

I thought an accident was a chance happening--unexpected, unintentional and without known or assignable cause. Didn't all these things have causes? Shouldn't they have been expected? Maybe if we stop calling these things accidents, people would think more about not having them.

Just like the man who blew himself up using some flammable solvents in the basement near his gas heater.

It would have been an accident if he hadn't been killed!

HOW GOOD IS YOUR ACCIDENT PREVENTION PROGRAM?

June 1984

HOLMES SAFETY ASSOCIATION MONTHLY SAFETY TOPIC

MINERS--TEN RULES THAT WILL SAFEGUARD YOUR PERSONAL SAFETY AND THE SAFETY OF YOUR CO-WORKERS

1. Read and obey all the rules listed in your safety rule book or on the special safety instruction sheets provided for your particular job.

2. Always bar down any open ground under which you may be required to work. Drummy ground or slabs, which cannot be barred down, must be either blasted down, stulled or rock-bolted up, stringered or cribbed.

3. Be sure to wet down your working place and do a good job of housekeeping. A clean orderly place is a safe place to work in.

4. Obey the safety instructions given by the shift boss or other supervisor; their chief responsibility is your safety.

5. Watch out for mine locomotives and cars. Keep in the clear, use the safety zones. Keep away from the inside of curves when getting in the clear.

6. Stope and raise miners: Remember to keep the grizzlies in place and properly spaced, except when blasting in a raise or when working in the chute below. Be sure all timber is blocked and lagged over properly.

7. Whenever working in a chute, always wear a safety belt and use a secure staging with a three-inch lagging floor.

8. Remember that explosives are dangerous; always get powder in a powder sack and keep primers separate until the holes are being loaded. Return unused powder and primers to the proper magazines.

9. Build good secure stagings, using straight grained two-inch lagging for runners with one spike through the lagging and one under it on each end. Use good three-inch lagging for staging floors.

10. Be sure all floors are made of good, sound three-inch lagging, spiked on one end, and do not leave openings in floors.

"Be Alert....Don't Get Hurt"

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BEWARE OF THE LAWN MOWER

While the engine of a lawn mower would barely power a go-cart or a boat, it, nevertheless, spins its cutting blade at a speed of about 299 miles an hour. During the course of whacking off grass tops, this whirling blade causes about 125,000 accidents a year, accidents serious enough to end up as medical statistics.

In 85 percent of mower accidents, the injured party is the person behind the handles; however, nearly 20,000 bystanders also are injured by stones, nails, glass, debris, or forgotten toys which have been hurried sideways or upward by the rotary cutting blade.

No single household product holds such potential for human destruction as the power lawn mower. So fantastic is the force, that bits of wire have been driven completely through the skull and fragments of glass have penetrated the heart.

By following these ten recommended rules, experts say that you can drastically reduce the chances of a nasty accident:

1. Never allow children to operate a power mower.

2. Learn how to stop the mower quickly.

3. Before starting to mow, clear area of debris.

4. Do not operate mower in wet grass.

5. Do not operate the mower with guards removed.

6. Wear substantial shoes and long pants while using mower.

7. Fill gas tank outdoors, but never while engine is running.

8. Keep engine or motor free of grass or debris buildup.

9. Have the mower inspected each year by a competent repair person.

10. Give complete and undivided attention to the job of mowing.

Safety Tip

June 1984

HOLMES SAFETY ASSOCIATION MONTHLY SAFETY TOPIC

Charcoal Grills

The scent of charcoal-broiled steaks wafted on the summer breeze has become a popular part of the Great American Outdoors. However, with the increasing popularity of the charcoal grill has come another increase--in fires. Charcoal grill fires have led to more serious fires when lighting fluids have been misused, insulated gloves or other combustibles set too close to the coals, or when hot coals have fallen out of the grill and onto some combustible material.

A few precautions taken by the outdoor "chef" could lessen the chances of a tragic fire:

1. Once a fire has been started, never add any kind of flammable liquid to it;

2. Use lighting fluids sparingly--and only those prepared specifically for that purpose; do not use such liquids as gasoline or paint thinner to start a charcoal grill fire;

3. Keep the containers of flammable liquids and other combustible materials several feet away from the grill;

4. Place the grill on the ground on some other noncombustible surface;

5. Keep children away from the grill;

6. Do not wear loose-fitting clothing that could be swept into the grill by a sudden wind; remember, that most clothing will burn if its wearer gets too close to the ignition source;

7. Use charcoal grills and hibachies outdoors or in well-ventilated areas, thus reducing the chances of accidental carbon monoxide poisoning. Burning charcoal emits this unseen, deadly gas;

8. Store charcoal in a cool, dry, ventilated area. Damp charcoal has occasionally ignited spontaneously.

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HOW CAN A GOOD SWIMMER DROWN?

About 8,000 drownings occur each year. Some of the victims are young, healthy, able swimmers. Why do such puzzling tragedies happen? The National Safety Council says that voluntary hyperventilation--taking many deep breaths before diving underwater--may frequently be the cause.

The American Red Cross explains, "Hyperventilation, or deep breathing, increases breath-holding time by blowing off carbon monoxide and lowering the amount of carbon dioxide in the blood. If, after hyperventilation, the swimmer attempts to swim underwater for distance, a considerable length of time may elapse before the carbon dioxide level, reduced by overbreathing, will provide a strong stimulus to breathe."

The danger is that the oxygen level may drop to a point where the swimmer blacks out before the carbon dioxide level increases to the point where the swimmer feels the urge to take a breath.

If this happens, drowning will result unless help is at hand to get the swimmer to the surface. When rescued, such a victim should be given artificial respiration immediately.

Distance underwater swimming is discouraged by the Red Cross. Persons trying to increase their underwater swimming distances should be aware of the extreme danger of hyperventilation.


GET UP TO SAFETY
EQUIPMENT
HANDS CLEAR
OBEY
REMOVE
LOOSE SLABS
LIFT WITH
YOUR LEGS

June 1984

The Last Word

POISONINGS

Nearly all accidental poisonings could be prevented if the toxic materials were stored and handled properly, according to the National Clearing House for Poison Control Centers. Here are precautions to take:

1. Lock your medicine cabinet. Drugs, including the largest offender, aspirin, account for one-third of all fatal poisonings in children under five. It is not enough to put medicines on high shelves, for children in the climbing stage will go to amazing heights in search of forbidden items.
2. Don't keep household chemicals under the kitchen sink. The one-year-old who crawls under the sink to ingest bleaches and lyes, accounts for 37 per cent of poisoning cases, according to one study. Hazardous household products belong on high shelves, preferably in a locked compartment, inaccessible to the crawler.
3. Never transfer a poisonous substance, such as turpentine, into a common container like a cola or milk bottle, drinking glass, or pitcher. A child could easily mistake the poison for food or drink.
4. Never put poisons in cupboards used for food storage.
5. Make a regular check around the house to be sure poisonous items are not within a child's reach. Danger areas are kitchen, bedroom and bathroom.

THEN THERE WAS ONE

Six little workers, glad to be alive,
One forgot to wear his goggles,
then there were five.
Five little workers,
Standing by the door,
One indulged in horseplay,
Then there were four.
Four little workers,
One scratched his knee,
Didn't go for first aid,
Then there were three.
Three little workers,
Working on a screw,
One forgot to lock the switch,
Then there were two.
Two little workers,
Loading a truck on the run,
One lost his footing,
Then there was one.
Six little workers,
The plant did hire,
One practiced safety,
And will live to retire.

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Remember to think when you use your hands. Keep them out of trouble. They are your wage earners. Take care of them.

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In the safety campaign "either you help with the solution, or you're part of the problem..."

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IT'S CONTAGIOUS

Safety is contagious! Let's make every effort to spread it!