BULLETIN





May-June 1990

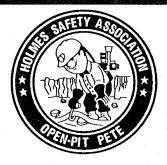




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KEEP US IN CIRCULATION

The Holmes Safety Bulletin contains safety articles on a variety of subjects: fatal accident abstracts, studies, posters and other safety-related topics. This information is provided free of charge and is designed to assist in presentations to groups of mine and plant workers during on-the-job safety meetings.

To report monthly chapter meetings, please use the postage-paid report form located in the back of this Bulletin and return to the Holmes Safety Association.

Welcome new members

| NAME | CHAPTER NO. | LOCATION |
|---|-------------|------------------|
| Allied Coal Testing Inc. | 8685 | London, WV |
| Lion Mining Company | 8686 | Jennerstown, PA |
| Lion Mining Company | 8687 | Botherton, PA |
| Conda Partnership | 8688 | Conda, ID |
| Romax Mining Inc. | 8689 | Ring, KY |
| Fairbanks Coal Co., Inc. | 8690 | Deane, KY |
| Sunlines Trucking & Constr. | 8691 | Provo, UT |
| Brush Wellman Inc. | 8692 | Delta, UT |
| Dominion Coal Corp. | 8693 | Rowe, VA |
| C & S Mining Corp. | 8694 | Rowe, VA |
| McGlothlin Coal Co. | 8695 | Amonate, VA |
| Koch Carbon Koch Raven Division Koch Hydraulic | 8696 | Keen Mt., VA |
| Lotta Coal Inc. | 8697 | Horsepen, VA |
| Tyart Valley Mining | 8698 | Flemmington, WV |
| Burgess Training Center | 8699 | Lowmanville, KY |
| Lia Minera de Cananea, Av. Juarez S.A. de C. V No. 35 | 8700 | Cananea, MX |
| Great Lakes Minerals Corp. | 8701 | Vassar, MI |
| Genstar Stone Products Co. | 8702 | Cockeysville, MD |

| NAME | CHAPTER NO. | LOCATION |
|------------------------------------|-------------|------------------|
| Big Fork Coal Co., Inc. | 8703 | Drill, VA |
| Reed's Excavating | 8704 | Mt. Storm, WV |
| R. J. Trucking | 8705 | Elk Garden, WV |
| Jones Trucking | 8706 | Elk Garden, WV |
| Gould Energy | 8707 | Gormania, WV |
| Floyd H. Jones Trucking | 8708 | Elk Garden, WV |
| Fintstone Inc. | 8709 | Thomas, WV |
| Conners Trucking Service | 8710 | Morgantown, WV |
| Graham Trucking Inc. | 8711 | Lahmansville, WV |
| Jackson's WOW | 8712 | Morgantown, WV |
| Hobet Mining Inc. | 8713 | Madison, WV |
| Reyhl Sand & Gravel | 8714 | Brighton, MI |
| Tincher's Mine Training Service | 8715 | Pratt, WV |
| Susag Sand & Gravel Inc. | 8716 | Harvey, ND |
| G & B Coal Inc. | 8717 | Clarksburg, WV |
| Ashby Fire Equipment Co. | 8718 | Oakland, MD |
| Savage Mining Inc. | 8719 | Dante, VA |
| Blackfoot Coal Co. No. 1 | 8720 | Nora, VA |
| Florida Crushed Stone CPL | 8721 | Brooksville, FL |
| General Shale Webtser Brick Co. | 8722 | Webster, VA |
| Chapel Energy Corp. | 8723 | Sutton, WV |

| CHAPTER NO. | LOCATION |
|-------------|--|
| 8724 | Sutton, WV |
| 8725 | Monterville, WV |
| 8726 | Hugheston, WV |
| 8727 | Lebanon, VA |
| 8728 | Short Gap, VA |
| 8729 | Rowe, VA |
| 8730 | Norton, VA |
| 8731 | Clarksburg, WV |
| 8732 | Uniontown, WV |
| 8733 | Harrisburg, IL |
| 8734 | Owosso, Shiawassee |
| 8735 | Bingham, UT |
| 8736 | Cooperton, UT |
| 8737 | Clarksburg, WV |
| 8738 | Clarksburg, WV |
| 8739 | Clarksburg, WV |
| 8740 | Clarksburg, WV |
| 8741 | Clarksburg, WV |
| 8742 | Clarksburg, WV |
| 8743 | Clarksburg, WV |
| 8744 | Clarksburg, WV |
| 8745 | Clarksburg, WV |
| | 8724 8725 8726 8727 8728 8729 8730 8731 8732 8733 8734 8735 8736 8737 8738 8737 8738 8739 8740 8741 8742 8743 8744 |

| NAME | CHAPTER NO. | LOCATION |
|----------------------------------|-------------|--------------------|
| Gorman Mayle Trucking | 8746 | Morgantown, WV |
| Three Sons Trucking | 8747 | Bruceton Mills, WV |
| D. J. Trucking | 8748 | Morgantown, WV |
| Dick's Tire Service | 8749 | Clarksburg, WV |
| Barr Trucking | 8750 | Star City, WV |
| T. J. Enterprises Inc. | 8751 | Bruceton Mills, WV |
| Donald B. Turner Trucking | 8752 | Masontown, WV |
| Tom Dewitt Trucking | 8753 | Dellslow, WV |
| Roy Dunn Trucking | 8754 | Clarksburg, WV |
| Perry Cale | 8755 | Masontown, WV |
| Dewitt Trucking Co. | 8756 | Kingwood, WV |
| C & E Contractor | 8757 | Morgantown, WV |
| Rex Burns Trucking | 8758 | Rowlesburg, WV |
| Interstate Chemical Co., Inc. | 8759 | Jane Lew, WV |
| Electric Thin Seam Miner | 8760 | Powellton, WV |
| The Banner Co. | 8761 | St. Paul, VA |
| Robert Holbert Trucking | 8762 | Dillner, PA |
| Nolan Enterprises | 8763 | Morgantown, WV |
| Skips Trucking | 8764 | Star City, WV |
| Harry Benson & Sons | 8765 | Philippi, WV |
| Barton Fork Mining Inc. | 8766 | Honaker, VA |

Reaching zero fatalities by 2000 through teamwork and Job Safety Analysis

By William J. Tattersall
Assistant Secretary of Labor for Mine Safety and Health

As some readers of the bulletin may have heard at safety meetings where I have spoken on this topic, I have set what may appear to be a highly ambitious goal for myself, the agency I head, and the mining industry. Quite simply, that goal is to achieve zero fatalities in mining by the year 2000.

Is this an impossible goal? Far from it. The nation's mining community already has made an incredible amount of progress in reducing deaths and injuries. During some recent years, in fact, we have achieved record lows. The all-time low in coal mining fatalities was 52 in 1988, with earlier record low figures achieved in 1985 and 1987. The record low for metal and nonmetal mining deaths was 48 in 1989, with all-time lows set in 1985, 1986, and 1988.

If everyone pitches in to get the job done, we can reach zero fatalities by 2000. A reduction of five coal mining deaths a year nationally and five metal and nonmetal deaths a year will get us there.

One of the best accident prevention tools that industry can use is Job Safety Analysis. The secret of Job Safety Analysis, known as JSA, is that miners, foremen, and supervi-

sors are able to work together to identify hazards and to develop step-by-step procedures that make up the safest, most effective way of completing a major task.

MSHA's safety specialists will soon be talking more about this initiative during visits to mines. We also are asking mining companies that use Job Safety Analysis for information on their experiences. We already have much educational material available at our Academy in Beckley, W. Va., and will make more training aids available to industry, unions and the public in coming months. We also are studying ways of incorporating JSA's into our training requirements.

Job Safety Analysis is a basic approach to developing improved job procedures and building acceptance through worker participation. Benefits are higher efficiency, greater safety, increased productivity, and better employee morale.

I'd like to invite all of you in our great mining community to climb on the Zero by 2000/Job Safety Analysis Bandwagon with us. There's still plenty of room. Remember, with teamwork, we can do it!

Illiam I Toursell

William J. Tattersall
Assistant Secretary of Labor for Mine Safety and Health

H.S.A. Safety Topic Preparing a Job Safety Analysis

Job Safety Analysis (JSA) is a technique for the review of a job. Its purpose is to uncover inherent or potential hazards which may be encountered in the work environment. When properly used, the JSA will be an effective tool for training employees in the work place.

During the development of a JSA, supervisors will learn more about the jobs they supervise. Employees who are encouraged to participate will develop a better attitude towards, and knowledge of, safety. The JSA will develop safer job procedures and create a better working environment.

The following are the basic steps for developing a JSA.

1. SELECT A JOB

Priorities in selecting jobs for Job Safety Analysis (JSA) are those jobs with high risk potential, jobs with an accident history, and new or modified jobs.

2. BREAK THE JOB DOWN INTO STEPS

After selecting a job for a JSA, separate the job into its basic steps. Record the job steps in the order they are performed. Each step or activity should briefly describe what is done. Avoid detailed steps so the JSA does not become too long. Make the breakdown with enough steps to describe the work, but do not include more steps than necessary. Most jobs will have 10 to 12 basic steps.

3. IDENTIFY THE HAZARDS

After determining the basic steps of the job, carefully examine each step to identify hazards or potential accident sources. Consider hazards associated with machinery, tools, supplies, job procedures, and the environment.

4. HAZARD CONTROL

After identifying the hazards for each job step, develop solutions to control the hazards in each job step. For every hazard associated with a job step, there should be a solution. Develop the JSA by watching the worker perform the job (Observation Method) or by discussing the job methods with the worker (Discussion Method). The observation method is the fastest way to perform the JSA, but it may not accomplish as much towards safety as the discussion method. The discussion method draws upon the experience and knowledge of those who know how the job is done or should be done. The discussion method also gets the workers actively involved in the JSA, making them a part of the decision making process. Having the worker actively participate usually results in long-lasting acceptance of safety rules and procedures.

JSA's are also valuable for employee training. A completed JSA provides an excellent instructional outline:

- the steps of the job are shown in the order performed;
- the hazards associated with each step are listed; and
- the safe and proper procedure for each step is described.

All of these help decrease the likelihood of an accident. In addition, the use of JSA standardizes job procedures and safety instructions so everyone learns the job the same way.

As jobs are analyzed, benefits such as motivation, communication, employee participation, standardized job procedures, and standardized safety instructions result. These benefits can be obtained by employing the safe job procedures and other recommendations developed through the JSA.

Holmes Safety Association Sorted by Standing – Fourth Quarter 1989 Coal – Surface Safety Competition Report

| Council name Group I | Council No. | Work-hours | Lost- Time Acc | Fatals | Inci- dence rates | No. mtgs | No. Chaptrs | Stdg | |
|--|----------------|------------|----------------------|--------|-------------------------|-------------|----------------|------|--|
| Powder River Basin | WY01 | 1,570,516 | 3 | 0 | 0.38 | 3 | 17 | 1 | |
| Four Corners | NM01 | 1,352,562 | 8 | 0 | 1.18 | 1 | 14 | 2 | |
| S. Indiana Joint Safety Com. & HSA | IN02 | 507,350 | 6 | 0 | 2.37 | 2 | 5 | 4 | |
| N. Colo/S. Wyoming HSA Dist. Council | WY02 | 1,117,856 | 8 | 0 | 1.43 | 1 | 15 | 3 | |
| Missouri Basin Council | ND01 | 493,782 | 8 | 0 | 3.24 | 1 | 8 | 7 | |
| Southern Illinois Open-pit | IL06 | 1,101,271 | 16 | 0 | 2.91 | 1 | 13 | 5 | |
| Southeast Ohio Council | 0H02 | 648,548 | 10 | 0 | 3.08 | 2 | 11 | 6 | |
| Coal River Council | WV02 | 2,173,941 | 151 | 0 | 13.89 | 2 | 54 | 8 | |
| TOTAL | , | 8,965,826 | 210 | 0 | 4.68 | 13 | 137 | | |
| | | | | | | | | | |
| Group II | | | | | | | | | |
| N. Indiana Jt. Comm. for Coal Mine Sfty. | IN01 | 0 | 0 | 0 | 0.00 | 0 | 0 | 1 | |
| Clearfield Council | PA03 | 272,362 | 3 | 0 | 2.20 | 0 | 0 | 2 | |
| New River Valley/Winding Gulf Council | WV10 | 328,211 | 9 | 0 | 5.48 | 0 | 20 | 4 | |
| Western Maryland | MD02 | 305,486 | 3 | 1 | 2.62 | 1 | 29 | 3 | |
| TOTAL | | 906,059 | 15 | 1 | 3.53 | 1 | 49 | | |
| Group III | | | | | | Ÿ | | | |
| Grove City/Clarion County Council | PA05 | 0 | 0 | 0 | 0.00 | 0 | 0 | 2 | |
| Kiski – Tri-County Council | PA08 | 240,023 | 1 | 0 | 0.83 | 3 | 9 | 5 | |
| Indiana Council | PA07 | 112,140 | 2 | 0 | 3.57 | 1 | 5 | 6 | |
| Potomac Valley | MD01 | 0 | 0 | 0 | 0.00 | 2 | 0 | 2 | |
| John O. Miller Council | PA09 | 29,368 | 0 | 0 | 0.00 | 2 | 1 | 1 | |
| Richard Maize Council | PA10 | 0 | 0 | 0 | 0.00 | 0 | 0 | 2 | |
| Clymer Council | PA04 | 35,400 | 4 | 0 | 22.60 | 3 | 4 | 8 | |
| William "Scotty" Groves Council | PA06 | 97,075 | 8 | 0 | 16.48 | 3 | 3 | 7 | |
| TOTAL | | 514,006 | 15 | 0 | 5.84 | 14 | | - | |

Holmes Safety Association Sorted by Standing Coal – Underground Safety Competition Report

| Council name Group I | Council No. | Work-hours | Lost- Time | Fatals | Inci- dence | No. mtgs | No. Chaptrs | Stdg |
|---------------------------------------|----------------|------------|---------------|--------|----------------|-------------|----------------|------|
| • | 01100 | 754 000 | ACC | | rates | | _ | |
| Southeast Ohio Council | OH02 | 751,020 | 32 | 0 | 8.52 | 2 | 5 | 2 |
| John E. Jones | IL02 | 0 | 0 | 0 | 0.00 | 0 | 0 | 1 |
| William "Scotty" Groves Council | PA06 | 1,322,804 | 65 | 0 | 9.83 | 3 | 16 | 3 |
| Indiana Council | PA07 | 1,074,884 | 54 | 1 | 10.23 | 1 | 13 | 4 |
| Walter W. "Kingfish" Kessler | IL07 | 836,453 | 63 | 0 | 15.06 | 1 | 5 | 5 |
| New River Valley/Winding Gulf Council | WV10 | 1,328,594 | 117 | 0 | 17.61 | 0 | 31 | 6 |
| Coal River Council | WV02 | 1,372,108 | 132 | 0 | 19.24 | 2 | 39 | 7 |
| TOTAL | | 6,685,863 | 463 | 1 | 13.88 | 9 | 109 | |
| | | | | | | | | |
| Group II | | | | | | | | |
| North Central Council | WV11 | 726,182 | 32 | 0 | 8.81 | 2 | 6 | 2 |
| N. Colo./S. Wyoming HSA Dist. Council | WY02 | 423,786 | 24 | 0 | 11.33 | 1 | 5 | 3 |
| Potomac Valley | MD01 | 537,770 | 15 | 0 | 5.58 | 2 | 7 | 1 |
| TOTAL | | 1,687,738 | 71 | 0 | 8.41 | 5 | 18 | |
| | | | | | | | | |
| Group III | | | | | | | | |
| Kiski – Tri-County Council | PA08 | 193,197 | 9 | 0 | 9.32 | 3 | 11 | 4 |
| Grove City/Clarion County Council | PA05 | 0 | 0 | 0 | 0.00 | 0 | 0 | 1 |
| Clymer Council | PA04 | 71,417 | 5 | 0 | 14.00 | 3 | 6 | 6 |
| Clearfield Council | PA03 | 7,286 | 1 | 0 | 27.45 | 0 | 1 | 7 |
| Richard Maize Council | PA10 | 0 | 0 | 0 | 0.00 | - 0 | 0 | 1 |
| John O. Miller Council | PA09 | 188,686 | 11 | 0 | 11.66 | 2 | 1 | 5 |
| Ramon A. Gothard | IL03 | 0 | 0 | 0 | 0.00 | 0 | 0 | 1 |
| TOTAL | | 460,586 | 26 | 0 | 11.29 | 8 | 19 | |

Sorted by Standing Metal – Underground Safety Competition Report

Group I

N. Colo/S. Wyoming HSA Dist. Council

| WY02 | 1,440,049 | 28 | 0 | 3.89 | 1 | 5 | 1 | |
|------|-----------|----|---|------|---|---|---|--|

Holmes Safety Association Monthly Safety Topic



Fatal machinery accident

old maintenance man with 16 years of surface mining experience was fatally injured, and a 34 year old heavy equipment operator was seriously injured when a steel pontoon fell on them. One end of a pontoon had been picked up by looping a chain sling over two bucket teeth of a hydraulic excavator. The chain slipped off the teeth and the two men were crushed while they were patch-welding leaks in the pontoon floats.

DESCRIPTION OF ACCIDENT: The two workers reported to work at 6:30 a.m. After checking with the Superintendent, they decided to resume work on the pontoon located outside the maintenance building. The pontoon was brought to this location because of the availability of air and water hookups needed to test for leaks.

The pontoon was pressurized to determine where the leaks were located. Once the leaks were located, the air was bled from the float. The workers planned to raise the end that needed to be welded. They normally used the front end loader for this task. However, it was not available because the transmission fluid was being changed. They decided to use a trac-hoe instead.

After welding the leaks, the pontoon was recharged. The victims were in the process of putting water on the float to check for additional leaks when the pontoon fell on them.

CAUSE OF ACCIDENT: This accident was caused by two miners working under a suspended pontoon that was lifted using an incorrect hitch.

The two workers did not recognize they were under a dangerous suspended load. The pontoon was tipped upward so that open sky was above them. They did not account for the hinge affect of the radial path of the falling pontoon.

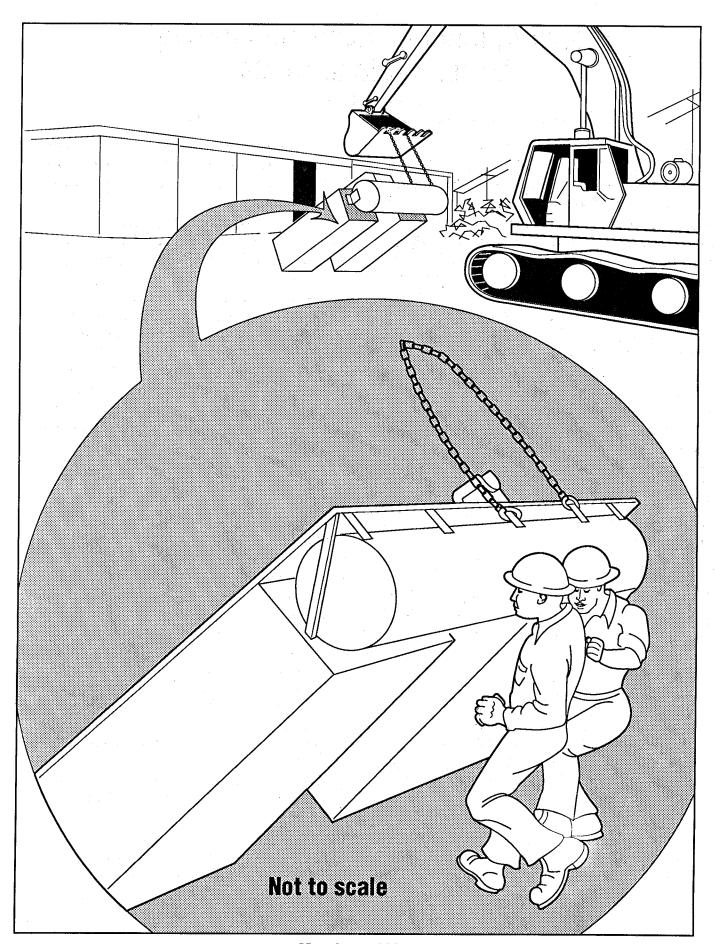
The trac-hoe was being used to perform a task for which it was not designed.

The bucket was not equipped with eyebolts or other means of securely fastening rigging, and proper rigging was not used. The chain used to lift the pontoon slipped off the bucket teeth.

The two men did not follow the normal practice of turning a pontoon upside-down when testing for and repairing leaks.

There had been no task training in the safe operation of this machine, particularly as a lifting device. There was also no task training in proper use of rigging.

The operators manual for the trac-hoe was not at the mine to facilitate proper task training. Two pages of this manual gave specific warnings that could have prevented this accident. The importance of having this training tool available and of conducting task training cannot be over-emphasized.



May-June 1990

Stopping haulage accidents through better haulage roads

by Bruce Dial

Instructor of Mining Technology MSHA National Mining Academy

In recent years, surface mine haulage equipment has evolved from trucks capable of hauling fifty tons of material to vehicles that transport as much as 350 tons. Unfortunately, road design has not advanced at the same rate. In many areas, road-building technology appropriate for vehicles of decades past is still being used today. As a result, numerous haulage-road accidents occur every year. A number of these mishaps can be attributed to operator error. However, far too many are caused by road conditions that are inadequate to safely accommodate the vehicle being used.

Research of engineering data for all major types of surface mine machinery indicates that large off-road haulage trucks have the smallest margin of safety due to their great size and weight, characteristic use, and control components. Thus, designing haulage roads to accommodate these vehicles would create a wide margin of safety for all other surface mining equipment.

Haulage roads should be designed to provide safe, efficient travel at normal operating speeds. The ability of the vehicle operator to see ahead a distance equal to or greater than the stopping distance required should be a primary consideration.

Another consideration in designing haulage roads is brake performance. The Society of Automotive Engineers (SAE), realizing the need for effective brake performance standards, has developed test procedures and minimum stopping distance criteria for several weight categories of large, off-highway trucks. SAE-recommended practice #J166 delineates the following

| | Service brake maximum stopping distance at 20 mph |
|---------------------|---|
| <100,000 | 60' |
| • | 90' |
| >200,000 to 400,000 | 125' |
| | 175' |

values as maximum permissible service brake stopping distances from an initial velocity of twenty mph, on a dry, level, clean, concrete surface.

Table M-l in section 56/57.14101 of Title 30, Code of Federal Regulations also lists maximum service brake stopping distances adopted by the Metal/Nonmetal division of the Mine Safety and Health Administration.

Sight distance should also be considered in the construction of surface mining haulage roads. Sight distance is defined as "the extent of peripheral area visible to the vehicle operator." It is imperative that sight distance be sufficient to enable a vehicle traveling at a given speed to stop before reaching a hazard. The distance measured from the driver's eye to the hazard ahead must always equal or exceed the required stopping distance.

On vertical curve crests, the sight distance is limited by the road surface. Figure 1, case "A", illustrates an unsafe condition. The sight distance is restricted by the short vertical curve and prevents the vehicle from being stopped in time to avoid the hazard. Case "B" shows a remedy for the dangerous condition. The vertical curve is lengthened, creating a sight distance equal to the required stopping distance.

On horizontal curves, the sight distance is limited by adjacent berm dikes, steep rock cuts, trees, structures, and other obstructions. Case "C" illustrates a horizontal curve with sight distance restricted by trees and a steep side cut. Case "D" shows that by removing the trees and laying back the slope, the sight distance can be lengthened to equal the required stopping distance.

The width of the haulageway is another area where the haulage road designer must be very concerned. Sufficient room for maneuvering must be allowed at all times to promote safety and maintain continuity in the haulage

cycle. Unlike passenger and commercial vehicles, which have somewhat "standardized" dimensions, surface mine machinery varies drastically in size from one production capacity rating to another. Thus, requirements have to be defined for particular sizes of vehicles rather than for general types. The need to specify additional widening for straight road to curve transitions further complicates road design.

Because of the large number of factors which must be considered in road design, guidelines for determining width are separated into individual categories. Additional considerations must be given to extra road width for subbase outslopes, drainage facilities, berms, etc.

Width criteria for the traveled lane of a straight haul segment should be based on the widest vehicle in use. Designing for anything less than this dimension will create a safety hazard due to lack of proper clearance. In addition, narrow lanes often create an uncomfortable driving environment, resulting in slower traffic, and ultimately in reduced production.

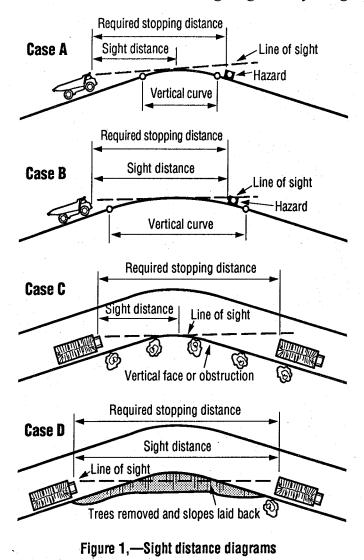
Rules of thumb for determining haulage road lane dimensions vary considerably from one reference source to another. Many of the guidelines specify that a constant width be added to the width of the haulage vehicle to determine total dimension. This method is sufficient for smaller vehicles, but it is not advisable for computing lane spans to accommodate larger machines. To compensate for the increase in perception distance created by greater vehicle width, the space allocated for side clearance should vary with vehicle size.

A practical guideline for establishing the vehicle-to-lane width ratio is contained in figure 2 which comes from the 1965 "American Association of Highway Officials Manual for Rural Highway Design."

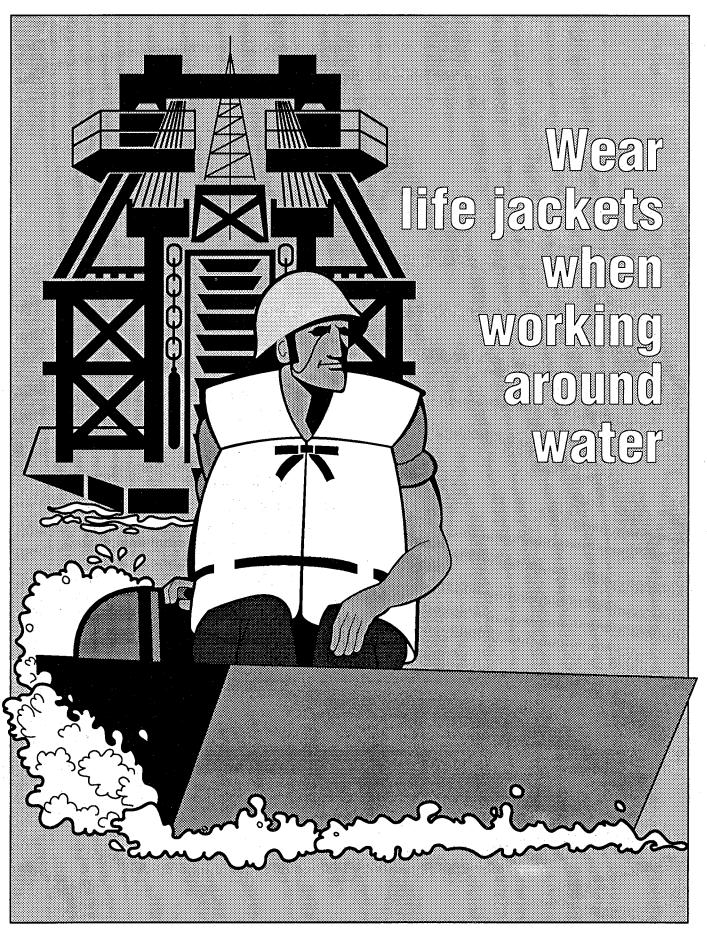
These are only a few design concepts that can be used on today's haulageways to eliminate haulage accidents. Other areas of concern such as berms, grade, signs, and road maintenance will be discussed in future articles.

Figure 2.—Recommended lane widths – tangent sections

| • | | | | |
|---------------------|--------|---------|---------|---------|
| Vehicle width, feet | 1 lane | 2 lanes | 3 lanes | 4 lanes |
| 8 | 16 | 28.0 | 40 | 52.0 |
| 9 | 18 | 31.5 | 45 | 58.5 |
| 10 | 20 | 35.0 | 50 | 65.0 |
| 11 | 22 | 38.5 | 55 | 71.5 |
| 12 | 24 | 42.0 | 60 | 78.0 |
| 13 | 26 | 45.5 | 65 | 84.5 |
| 14 | 28 | 49.0 | 70 | 91.0 |
| 15 | 30 | 52.5 | 75 | 97.5 |
| 16 | 32 | 56.0 | -80 | 104.0 |
| 17 | 34 | 59.5 | 85 | 110.5 |
| 18 | 36 | 63.0 | 90 | 117.0 |
| 19 | 38 | 66.5 | 95 | 123.5 |
| 20 | 40 | 70.0 | 100 | 130.0 |
| 21 | 42 | 73.5 | 105 | 136.5 |
| 22 | 44 | 77.0 | 110 | 143.0 |
| 23 | 46 | 80.5 | 115 | 149.5 |
| 24 | 48 | 84.0 | 120 | 156.0 |
| 25 | 50 | 87.5 | 125 | 162.5 |
| 26 | 52 | 91.0 | 130 | 169.0 |
| 27 | 54 | 94.5 | 135 | 175.5 |
| 28 | 56 | 98.0 | 140 | 182.0 |



May-June 1990



Holmes Safety Association Monthly Safety Topic



Fatal machinery accident

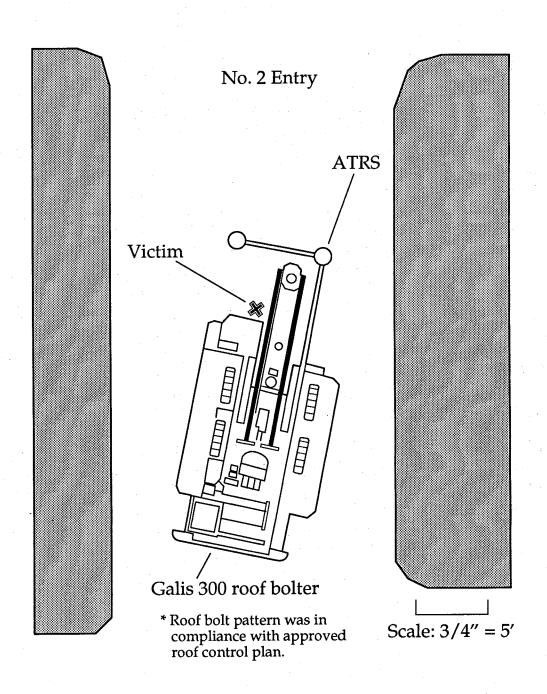
GENERAL INFORMATION: A roof bolting machine operator was fatally injured when the boom assembly of the roof bolting machine, which he was attempting to repair, was released and crushed him. The victim had a total of two years and six months of mining experience but had never been trained in and did not have any experience in performing the repair task he attempted. The victim had been in the job classification of "Roof Bolting Machine Operator" for two weeks.

DESCRIPTION OF ACCIDENT: The victim arrived on the mine section at approximately 2:30 p.m. and began his normal work assignment. After installing four roof bolts, the victim noticed a hydraulic oil leak near the center of the roof bolting machine. He moved the machine back some distance to gain additional height in order to begin the necessary repair work. The section foreman was informed of the problem and

he instructed the coal drill operator to assist the victim with the repair. The victim removed the damaged hose from the roof bolting machine without incident. The victim, who was located at the operator's compartment at the front of the machine, raised the boom assembly and began to replace the hose, positioning himself under the boom assembly. As the victim maneuvered into position, his body contacted the control lever and released the boom assembly. The victim was pinned between the boom and the frame of the machine.

The victim died several hours after being transported to the hospital.

CAUSE OF THE ACCIDENT: The accident occurred because the victim was in a hazardous location without blocks being installed to prevent the fall or movement of the raised boom.

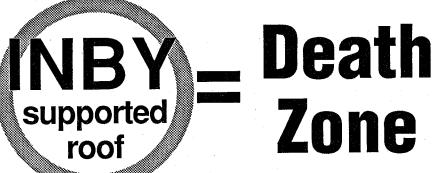


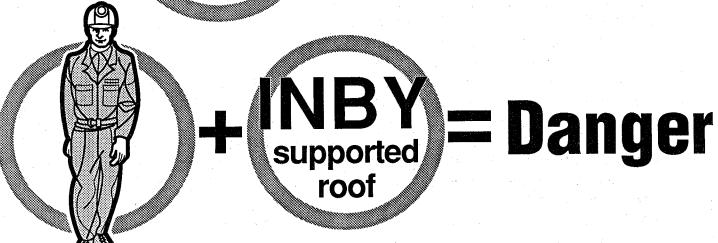
Sketch of fatal machinery accident

Roof Evaluation—Accident Prevention

REAP—a program developed to promote health and safety awareness in mining

An equation for danger!







MINERS: Credit for this month's safety slogan goes to: Terri Rife, Sunset Land and Coal Co., P.O. Box 1066, Grundy, Virginia 24614. Please send your suggestions to: MSHA, Educational Policy & Development, 4015 Wilson Blvd., Graphics Room 533A, Arlington, VA 22203-1984. Phone: (703) 235-1400



West Virginia State Council Meeting April 1990

The Seventh Annual West Virginia State Council Meeting was held at the Pipestem State Park, Pipestem, West Virginia. A large number of individuals and companies were honored at this meeting for their contributions to safety in the mining industry, their

accomplishments related to the Holmes Safety Association, and for acts of heroism. Following are the individuals and companies who were honored at this year's meeting.

HSA Commendation for Heroic Action – James E. Smith

On November 8, 1989, James E. Smith, a Federal Coal Mine Inspector in the Logan Field Office of Coal Mine Safety and Health (CMSH) District 4, was travelling on mine property enroute to inspect a coal mine when he encountered a coal truck pulled over to the side of the road. The bed of the truck was raised and in contact with 12,500 volt A/C power lines. The rear tires on the passenger side of the truck were smoking, and the driver of the truck was lying, unconscious, next to the smoking tires and under the truck bed. James Smith stopped his vehicle and quickly and carefully pulled the driver away from the wheels. Noticing that the driver was not breathing, Smith immediately started artificial respiration. The rear tires of the truck burst into flames, forcing Smith to move the driver to a safer

location. Smith continued artificial respiration until the driver began to breathe on his own. Smith then carefully loaded the driver into his vehicle and transported him to the hospital. Doctors at the hospital confirmed that the driver had been electrocuted. After treatment and observation, the driver was released.

The coal truck remained in contact with the power lines until the circuit tripped. The rear wheels on the right side of the truck were completely burned off their rims by the time the power failed. If James Smith had not acted quickly and carefully in providing assistance to the driver, this accident would have been fatal.

Congratulations James E. Smith!!!!!!!!

Holmes Safety

James L. Adkins - for his continuous service to the Holmes Safety Association. Jim has been an active participant in the Association for many years and has served as Safety Director for the West Virginia State Association since its inception in 1984. This year's meeting was dedicated to Mr. Adkins

in recognition of this service (General Manager-Safety, Cannelton Industries, Inc., Charleston, West Virginia).

Jim Gillespie - for many years of service to the industry and to the Holmes Safety Association (retired).

Industry Recognitions

Clinton Hall - for working 34 years without experiencing a lost time injury (Marrowbone Development Corporation).

Industry recognitions - continued

Phillip Stanley, Jackie Mills, and Wally Justice - for saving the life of Appalachian Power Company employee Glen Maynard (Marrowbone Development Company).

Stoney Creek Coal Company, No. 3 Mine - for working 430,000 manhours (3/85-12/89) without any fatal accidents or serious injuries. Alan Handy accepted the award (MAE Services, Inc.).

Pacesetter Awards - CMSH Districts 3 and 4

Beth Energy Mines, Inc., Mine No. 108

Lake Energy, Inc., No. 1 Mine

Carter-Roag Coal Co., Inc., Mine No. 1-A

Consolidation Coal Company, Rowland #14 Mine

J.A.L. Coal Company, Inc., Prime No. 1 Mine

Consolidation Coal Company, Amonate #31 Mine

Winner Brothers Coal Co., Inc., Frostburg Strip

Paybra Mining Co., Inc., #1 Surface Mine

Kleen Coal Company, Karen No. 1 Cleaning Plant

Twin Branch Coal Company, No. 29 Preparation Plant

Vendor recognition

Iron Age Shoe Company National Mine Service, Co. CSE Mine Safety Appliance

Coal Safety Leaders

1985 LARRY K. COMPTON Vice President and General Manager Marrowbone Development Company 1989 RICK HICKMAN Division Safety Supervisor Cannelton Industries, Inc. Maple Meadows Mining

1986 JIM BECK General Manager Northern West Virginia Eastern Associated Coal Corp.

1990 BEN H. DAUD President Arch of West Virginia, Inc.

1987 WILLIAM K. CATNEY Retired—Former Director of Safety American Electric Power

Ben Daud instituted Division-wide Safety Audits and started an Observation Program to locate and report unsafe acts by employees and unsafe conditions. This program features follow-up reporting to insure that hazardous conditions and unsafe acts are corrected. The company also

1988 STEVE RICHARDS Supervisor of Safety for W. Va. Division Peabody Coal Company has an Equipment Maintenance Program to make sure all machinery is kept in good working order. In addition, Ben started the 360 Degree Safety Communications Program, and Arch of West Virginia sponsors safety messages on the local radio station.

This company is working on a team safety concept to get everyone involved. As a result of this safety leadership, Arch of West Virginia has experienced continuous improvement in their safety record.

NOTICE:

The 1990 Holmes Safety stickers are now available!

1990: A NEW DECADE FOR SAFETY



If you are interested in obtaining stickers please write:

Mine Safety and Health Administration Educational Policy and Development 4015 Wilson Boulevard Arlington, VA 22203-1984

Attention: Greg Graham, or phone Greg at (703) 235-1400

The National Holmes Safety Association dedicates the 1990 National Meeting to

William H. Hoover

National Secretary/Treasurer Retired

Thanks for the 30 plus years of service

A SALUTE TO W.H. "BILL" HOOVER "a man who has devoted his adult life to safety"

Bill was born in New York City. He spent his early childhood in Jamaica. He later returned to New York City where he lived until he was about twenty years old. At that time he went to the coal fields of western Pennsylvania. In 1932, he began his mining career with the H.C. Frick Coal Company as a laborer. Before he left that company, eight years later, he had worked his way up to the position of assistant mine foreman. In 1940, he assumed the position of general mine foreman with the Buckeye Coal Company. Bill's tenure with the management and labor side of the coal industry ended in 1956 when he received his appointment as a federal mine inspector with the Department of Interior, Bureau of Mines.

As a coal miner and supervisor, Bill Hoover had developed an interest in safety training. As a result of this interest, he became involved in the Holmes Safety Association very early in his career. He had always believed that those who were able to perform their duties without incurring an injury should share their methods and knowledge with others to help them avoid the se-

vere penalties often accompanying accidents during those early years of mining. As a federal mine inspector, Bill often took the time and added responsibility for presenting safety talks and cautioning miners and supervisors about bad habits or unsafe acts. He developed a reputation as one who was genuinely concerned for the health and safety of those working in the mining industry.

In 1964, when a man with a sincere interest in the wellbeing of coal miners was needed to fill a voluntary position at the state level, it was fitting that William H. Hoover was elected as Secretary of the Pennsylvania Bituminous State Council. Two years later, the National Council of the Holmes Safety Association was most fortunate to have Bill accept the appointment as National Secretary/Treasurer. Hoover continued to serve in that position for 24 years.

Through Bill's leadership, the National Holmes Safety Association has become the largest safety association in the world. Local chapters have increased from 251 in 1965 to 5,171 in 1989. The 19 District

Councils in existence when Bill took over have grown to 54 in 1990. In addition to the fifty states, chapters and councils have been established in Canada, Mexico, China (Mainland), Australia, Tanzania and Puerto Rico.

Mr. Hoover received many awards during his service with the Federal Government. Among the more significant are:

- (1) DOL Distinguished Career Service Award (1980)
- (2) DOL Special Recognition Award (1983)
- (3) DOL Honorable Recognition Award (1984)
- (4) DOL Special Achievement Award (1988)

We have been lucky to have William H. Hoover as a member of our safety team. His personality and dedication were the motivation and inspiration that spurred the Holmes Safety Association to the heights it has achieved. It is, therefore, proper that we pay tribute to this man by dedicating this National Meeting in his honor. Bill Hoover is well deserving of this recognition.

May-June 1990

District Council Safety Competition Award Winners 1989

COAL UNDERGROUND

Group I—3,000,000 or more work-hours exposure SOUTHEASTERN OHIO DISTRICT COUNCIL - Wilkesville, Ohio 3,154,192 Work-hours, 109 Lost-Time-Injuries, 0 Fatals, 6.91 IR

Group II—1,500,000-2,999,999 work-hours exposure NORTHERN COLORADO/SOUTHERN WYOMING - Rawlins, Wyoming 1,603,666 Work-hours, 97 Lost-Time-Injuries, 0 Fatals, 12.10 IR

Group III—1,499,999 or less work-hours exposure KISKI TRI-COUNTY DISTRICT COUNCIL -Vandergrift, Pennsylvania 699,776 Work-hours, 26 Lost-Time-Injuries, 0 Fatals, 7.43 IR

COAL SURFACE

Group I—2,000,000 or more work-hours exposure POWDER RIVER BASIN DISTRICT COUNCIL - Gillette, Wyoming 5,711,746 Work-hours, 23 Lost-Time-Injuries, 0 Fatals, 0.81 IR

Group II—1,000,000-1,999,999 work-hours exposure NEW RIVER/WINDING GULF DISTRICT COUNCIL - Mt. Hope, W. V. 1,305,721 Work-hours, 27 Lost-Time-Injuries, 0 Fatals, 4.14 IR

Group III—999,999 or less work-hours exposure INDIANA DISTRICT COUNCIL - Indiana, Pennsylvania 425,231 Work-hours, 8 Lost-Time-Injuries, 0 Fatals, 3.78 IR

METAL/NONMETAL UNDERGROUND

Group I—3,000,000 or more work-hours exposure NORTHERN COLORADO/SOUTHERN WYOMING - Rawlins, Wyoming 5,913,538 Work-hours, 104 Lost-Time-Injuries, 0 Fatals, 3.52 IR

National Council Holmes Safety Association Competition Awards Program

Rules

- 1. Only district councils may compete for National Safety competition awards.
- 2. To be considered eligible for recognition for any of the National Safety Competition Awards, the district council is required to meet four or more times in the calendar year.
- 3. To compete, district councils are required to have an annual quarterly average of five or more underground chapters and /or five or more surface chapters.
- 4. Those councils with five or more surface and five or more underground chapters within that district council could be eligible for more than one award provided they report separate statistics for the surface and the underground chapters.
- 5. District council officers are responsible for submitting a safety competition report for each quarter to the National Secretary no later than 60 days following the end of the calendar quarter. Calendar quarters are as follows:

1st Quarter—January-March 2nd Quarter—April-June 3rd Quarter—July-September Report postmarked by *May 30*Report postmarked by *August 30*Report postmarked by *November 30*

4th Quarter—October-December

Report postmarked by February 29

Criteria

The National Council will establish the incidence rates and standings of the District Councils in accordance with NFDL injuries and fatalities as defined in 30 CFR Section 50.2(E) using the following MSHA-adopted formula:

Incidence Rate

No. of Cases x 200,000
Hours of Employee Exposure

Awards will be presented annually to the district council with the lowest incidence rate within each of the following groups:

| UG COAL | <u>UG METAL/NONMETAL</u> | |
|-----------|--------------------------|------------------------------|
| Group I | Group I | 3,000,000 or more work-hours |
| Group II | Group II | 1,500,000 or more work-hours |
| Group III | Group III | 1,499,999 or less work-hours |

SURFACE COAL
Group ISURFACE METAL/NONMETALGroup IGroup I2,000,000 or more work-hoursGroup IIGroup II1,000,000 or more work-hoursGroup IIIGroup III999,999 or less work-hours

When district councils are involved in incidence rate ties, the winner is determined by the greatest number of worker exposure hours.

Remember: Safety Competition Reports should now be submitted to the following address:

Mine Safety and Health Administration Educational Policy and Development 4015 Wilson Boulevard Arlington, Virginia 22203-1984

May-June 1990

National Council recognition for the formation of HSA chapters

The National Holmes Safety Council is grateful for the support received from those in the field. This effort is critical if the information we have to share is to reach all the mines and others with an interest in improving safety and health of our miners. In 1984, the membership of the association approved a certification of appreciation to be issued to those who establish ten (10) or more chapters each year. The following individuals have satisfied the criteria for this recognition and we congratulate them for their efforts in furthering the goals of the association.

| NAME | Number of Chapters | MSHA DISTRICT Coal M/NM |
|-----------------------|--------------------|----------------------------|
| Paul Bizich, Jr. | 13 | 2 |
| Clinton E. Cochran | 24 | 3 |
| Linda Byers | 10 | 3 14 1 |
| Kirk D. Harman | 19 | 4 |
| James W. Vencill, Jr. | 34 | 4 |
| Cleadus E. Thomas | 21 | 4 |
| Donald Ellis | 34 | 4 |
| Douglas M. Smith | 28 | 4 |
| Charles D. Cooper | 14 | 5 |
| Stanley L. Brown | 10 | 5 |
| Billy W. Damron | 38 | 6 |
| Billy J. Cantrell | 13 | 6 |
| Reed Kiser | 35 | 6 |
| Gerald R. Keith | 11 | NE |
| Charles E. Rines | 10 | NE |
| Howard W. Broemer | 11 - 3 | NC |
| John E. Guthrie | 10 | NC |
| Fred L. Davis | 24 | RM |
| Stanley Waggoner | 11 | WE |

The National Council thanks the following contributors for helping to make this annual banquet and meeting a success:

- 1. Cypress Minerals
- 2. Indiana District Council
- 3. Mine Safety Appliance
- 4. National Mine Service
- 5. Pine Mountain Coal
- 6. Southeastern Ohio District Council
- 7. West Virginia State Council
- 8. Southwest Safety Congress

Our thanks also to those contributing a flag for the golf tees:

- 1. Aimsafe Incorporated
- 2. Southern Indiana Joint Safety District Council
- 3. Mine Safety Appliance
- 4. Phelps Dodge, Inc.
- 5. Pennsylvania Bituminous State Council
- 6. West Virginia State Council

Reminder

This Bulletin and other Holmes Safety functions are now handled through the Educational Policy and Development office in Arlington, Virginia, and the National Mine Academy in Beckley, West Virginia.

All Correspondence, including chapter applications, requests for stickers, council safety competition data, etc., should be forwarded to:



Mine Safety and Health Administration Educational Policy and Development Room 523 4015 Wilson Boulevard Arlington, Virginia 22203-1984 (703) 235-1400)

The last word...

It is better to be a coward for a minute than dead for the rest of your life. (Irish Proverb)

Even if you're on the right track, you'll get run over if you just sit there. (Will Rogers 1879-1935)

After all is said and done, more is said than done. (Unknown)

Remember, we're here for a good time _ but not for a long time - so make every day count. (Overheard)

It takes two to speak the truth—one to speak and another to hear. (*Henry David Thoreau - 1817-1862*)

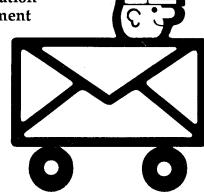
Nobody can make you feel inferior without your consent. (*Eleanor Roosevelt 1884-1962*)

The cautious seldom err. (Confucius (551 - 479 B.C.)

The trouble with life in the fast lane is that you get to the other end in an awful hurry. (John Jenson)

NOTICE: We will welcome any materials that you submit to the Holmes Safety Bulletin. We cannot guarantee that they will be published, but if they are, we will list the contributor(s). Please let us know what you would like to see more of, or less of in the Bulletin. You may contact us at the following address:

Mine Safety & Health Administration Educational Policy and Development Holmes Safety Bulletin 4015 Wilson Blvd. Arlington, Virginia 22203-1984



5000-22 (Rev. 12-78)



Holmes Safety Association Meeting Report Form

| For the month of | <u> </u> | |
|---------------------------------------|---------------------------------------|-------------------------------------|
| TOTAL meet | tings this month | |
| TOTAL atter | ndance this month $_$ | |
| Chapter Number | _ (See address label indicate change) | , if incorrect,please |
| | | |
| | (Signa | ture) |
| (Telephone No.) | | |
| | (Titl | e) |
| | ld and tape ure our addres | 3. Free mail in s shows |
| If you do not care to receive this Bu | ılletin, please check he | ere \square and return this form. |
| Please include and change of addre | ess below: | |

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MSHA, Office of Holmes Safety Association Educational Policy & Development 4015 Wilson Boulevard Arlington, Virginia 22203-1984

Joseph A. Holmes Safety Association Awards Criteria--Outline

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 Pittsburgh, PA 15213

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