AUGUST 1985

HOLMES SAFETY ASSOCIATION

E PLURIBUS UNUM

SAFETY EFFICIENCY

MINERAL INDUSTRIES

BULLETIN

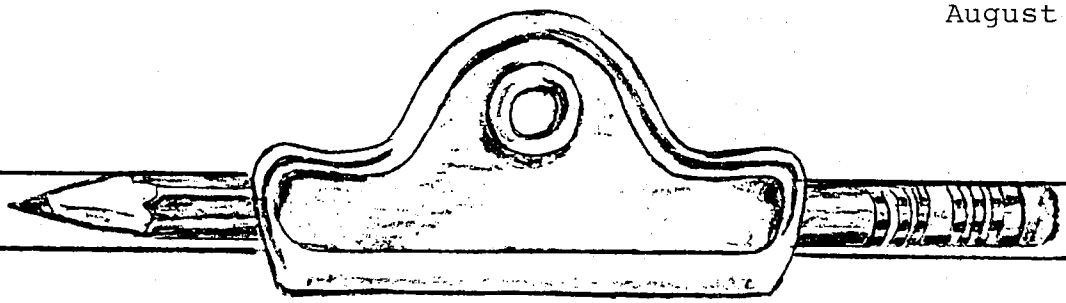
Make A Safety Drive In "85"

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.



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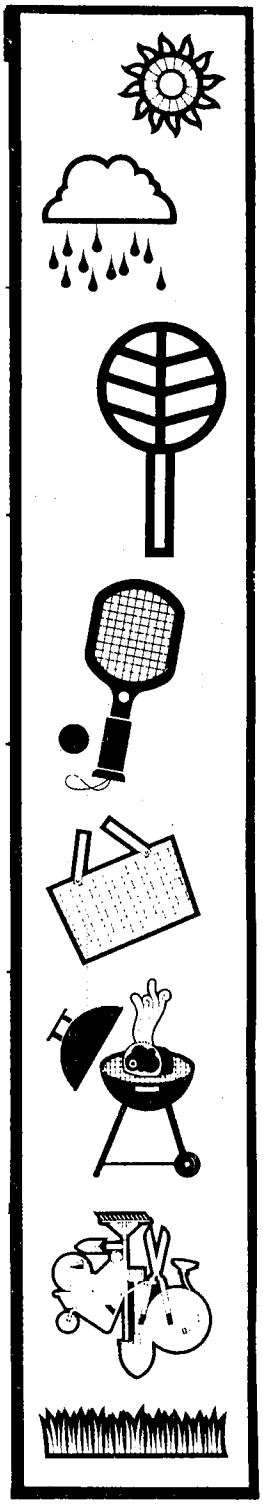
WELCOME NEW MEMBERS

COMPANY	CHAPTER NO.	LOCATION
Annapolis Sand & Gravel Co.	6130	Davidsonville, MD
Lone Star Cement, Inc.	6131	Blair, SC
Lone Star Cement, Inc.	6132	Dreyfus, SC
Lone Star Cement, Inc.	6133	Columbia, SC
Lone Star Cement, Inc.	6134	Greenwood, SC
Amherst Industries, Inc.	6135	Chelyan, WV
PCR	6136	Scarbro, WV
Camelot Coal Co.	6137	Reedsville, WV
Maplewood Mining Co., Inc.	6138	Summersville, WV
Pueblo Sand & Gravel, Inc.	6139	Tucson, AZ
Reidhead Sand & Rock	6140	Taylor, AZ
Wilson Coal Co.	6141	Crossville, TN
Jasper Stone Co.	6142	Jasper, MN
S & L Mining, Inc.	6143	Mavisdale, VA
County Concrete Corp.	6144	Marathon, WI
Salcido Ready Mix	6145	Douglas, AZ
Maddux & Sons, Inc.	6146	Douglas, AZ
Guzman Construction Co.	6147	Globe, AZ
Gatliff Coal Co., Inc.	6148	Gatliff, KY
Kaw Valley Sand & Gravel, Inc.	6149	Kansas City, KS
Barrett Paving Materials, Inc.	6150	Miamitown, OH
Melvin Stone Co.	6151	Wilmington, OH
King Coal Co., Inc.	6152	Morgantown, WV
Tripple D	6153	Nellis, WV
Billy Jack Coal Co., Inc.	6154	Chapmanville, WV
Kendrick Quarry	6155	Saltville, VA
West Sand & Gravel Co., Inc.	6156	Grottoes, VA
Vulcan Materials Co.	6157	Nashville, TN
Vulcan Materials Co.	6158	Hermitage, TN
Vulcan Materials Co.	6159	Franklin, TN
Vulcan Materials Co.	6160	Antioch, TN
Derek Mining, Inc.	6161	Beaver Dam, KY
Derek Mining, Inc.	6162	Beaver Dam, KY



H.S.A. SAFETY TOPIC

TABLES FOR FALLS OF ROOF, FACE, OR RIB FATALITIES IN UNDERGROUND COAL MINES, 1978-1982 *

This report combines data on fatal injuries resulting from falls of roof, face, rib, or side published separately by year for the period 1978-1982.

Fifteen tables were compiled from data contained in the final fatal inspection investigation reports made pursuant to the Federal Mine Safety and Health Act of 1977. All of the fatal "fall of roof, face, or rib" accident reports in underground coal mines during 1978-1982 were analyzed and the details summarized in this report. Also included is some data for 1973-1977.

During 1978-1982 there were 658 fatalities in the coal mining industry. Of these, 462 (or 70 percent) occurred underground. Fall of roof, face, or rib accidents accounted for 224 (or 34 percent) of the total number of fatalities and 48.5 percent of the underground fatalities reported for the coal mining industry during 1978-1982. Seventy-five percent (168) of the fall of roof, face, or rib fatalities occurred within 25 feet of the face; 169 (75.4 percent) occurred within 30 minutes after the roof had been examined; 77 (34.4 percent) occurred inby the last support and 82 (36.6 percent) occurred in areas of no support. Also, the reported primary cause of the accidents was failure to follow, or failure of, roof-bolting plan, in 51 (22.8 percent) of the fatalities.

*Although this analysis is 3 years old, it is indicative of the fatalities that have occurred in 1983 and 1984.

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TABLE 1. - Fatalities from falls of roof, face, or rib in underground workings of coal mines, 1973-82

Year	Number of fatalities	Incidence rates per 200,000 employee-hours	Percent of total underground fatalities
1973-----	44	.05	44.9
1974-----	47	.05	52.8
1975-----	53	.05	53.5
1976-----	38	.03	36.5
1977-----	37	.04	45.1
1978-----	33	.03	49.3
1979-----	66	.06	62.3
1980-----	32	.03	34.0
1981-----	41	.04	36.6
1982-----	52	.05	62.7

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TABLE 2. - Fatalities from falls of roof, face, or rib by work activity of the deceased at the time of the fall, 1978-82

Work activity	1978	1979	1980	1981	1982	Total	%[1]
1. Moving, setting up, or operating continuous mining machines	8	20	11	9	14	62	27.7
2. Mining, cutting, drilling, and blasting (excluding continuous mining operations)	-	-	2	3	4	9	4.0
3. Loading by machine or hand (excluding continuous miner operations	3	4	3	3	5	18	8.0
4. Moving machine (excluding continuous miners) from one working place to another	-	-	1	-	-	1	.4
5. Testing, barring, or taking down roof	2	6	-	3	4	15	6.7
6. Setting, pulling, or preparing to set or pull props and timbers	7	13	5	8	9	42	18.8
7. Preparing, installing, or recovering roof bolts	7	19	8	13	11	58	25.9
8. All other	5	3	1	-	5	14	6.3
9. Unknown	1	1	1	2	-	5	2.2
Total	33	66	32	41	52	224	100.0

[1]Percentages shown in this and subsequent tables may not add to 100 percent, in order to maintain consistency with equivalent numbers in other tables.

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TABLE 3. - Fatalities from fall of roof, face or rib, by occupation at the time of the injury, 1978-82

Occupation	1978	1979	1980	1981	1982	Total	%
1. Roof bolter/helper--	9	21	11	15	15	71	31.7
2. Continuous miner/ operator/helper----------	7	11	8	10	10	46	20.5
3. Supervisor/foreman or mine owner----------	4	17	6	5	5	37	16.6
4. Scoop operator or loading machine operator/ helper----------	4	4	3	4	6	21	9.4
5. Timberman/utility man/jack setter----------	2	5	3	2	6	18	8.0
6. Miner, loader, or laborer----------	4	4	-	3	6	17	7.6
7. Shuttle car operator-	1	2	1	1	1	6	2.7
8. Driller, electrician/ mechanic----------	2	1	-	-	-	3	1.3
9. Brattice man, mason--	-	1	-	-	2	3	1.3
10. Cutter or scraper operator----------	-	-	-	-	1	1	.4
11. Preparation man or shot-firer----------	-	-	-	-	-	-	-
12. Pumper----------	-	-	-	-	-	-	-
13. Unknown----------	-	-	-	1	-	1	.4
Total----------	33	66	32	41	52	224	100.0

-MORE-

TABLE 4. - Fatalities from falls of roof, face, or rib, by primary causes and by kind of loading, 1978-82

Primary causes	1978	1979	1980	1981	1982	Total	%
1. Failure to take down or secure loose roof, face, or rib	2	4	4	3	3	16	7.1
2. Failure to examine roof or incorrect analysis of such examination	9	6	4	7	14	40	17.9
3. Failure to comply with adopted conventional support systems or lack of a support plan	5	-	1	-	8	14	6.3
4. Failure to use temporary support or enough such supports	4	18	8	9	9	48	21.4
5. Failure to follow company rules or instructions, to heed warnings, or to take ordinary precautions	4	5	4	1	8	22	9.8
6. Failure to replace dislodged or removed supports	-	1	-	1	1	3	1.3
7. Failure to abandon workings when known to be imminently dangerous	1	-	-	-	-	1	.4
8. Failure of conventional support system	-	-	1	-	-	1	.4
9. Failure to follow, or failure of, roof-bolting plan	3	25	8	14	1	51	22.8
10. Failure of mining system	1	1	-	1	3	6	2.7
11. Other	4	6	2	5	5	22	9.8
Total	33	66	32	41	52	224	100.0
Mines, with fatalities, classified by method of loading:							
Hand	1	-	-	-	-	1	.4
Loading machine	6	10	6	11	12	45	20.1
Continuous miner	26	55	25	30	38	174	77.7
Gravity flow	-	-	1	-	-	1	.4
Other	-	-	-	-	-	-	-
Unknown	-	1	-	-	2	3	1.3
Total	33	66	32	41	52	224	100.0

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TABLE 5. - Fatalities from falls of roof, face, or rib, by kind of support, type of mining, and mining method, 1978-82

	1978	1979	1980	1981	1982	Total	%
1. Kind of support							
(a) Area of no support--	12	25	12	13	20	82	36.6
(b) Inby permanent support but under temporary support----------	7	26	13	16	15	77	34.4
(c) Under permanent support----------	14	15	7	12	17	65	29.0
(d) Undetermined--------	-	-	-	-	-	-	
2. Type of mine at time of the accident							
(a) Advance mining------	24	46	27	33	35	165	73.7
(b) Retreat mining------	7	18	4	7	9	45	20.1
(1) Mining final stump	4	8	2	3	5	22	9.8
(c) Other----------	-	1	1	1	7	10	4.5
(d) Undetermined--------	2	1	-	-	1	4	1.8
3. Mining Method							
(a) Continuous mining----	26	53	25	30	38	172	76.8
(b) Conventional---------	6	9	4	5	9	33	14.7
(c) Solid blasting-------	-	1	2	6	2	11	4.9
(d) Longwall----------	-	2	1	-	1	4	1.8
(e) Other----------	1	-	-	-	-	1	.4
(f) Undetermined---------	-	1	-	-	2	3	1.3

TABLE 6 - Relationship of time of roof examinations and time of accidents, 1978-82

	1978	1979	1980	1981	1982	Total	%
Supervisor present at time of accident-----	4	16	7	13	18	58	25.9
1 to 30 minutes before accident----------	21	30	18	23	19	111	49.6
1/2 to 1 hour before accident----------	6	14	5	1	3	29	12.9
1 to 4 hours before accident----------	1	5	2	3	9	20	8.9
4 to 8 hours before accident----------	1	-	-	-	1	2	.9
Over 8 hours before accident----------	-	-	-	-	-	-	-
No visit by supervisor before accident------	-	1	-	-	2	3	1.3
Unknown----------	-	-	-	1	-	-	.4
Total	33	66	32	41	52	224	100.0

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TABLE 7. - Fatalities from falls of roof, face, or rib, by month accident occured, 1978-82

	1978	1979	1980	1981	1982	Total	%
January	-	3	2	-	5	10	4.5
February	-	4	3	6	8	21	9.4
March	1	5	2	2	5	15	6.7
April	5	2	4	1	5	17	7.6
May	3	4	1	-	4	12	5.4
June	5	5	1	6	4	21	9.4
July	2	5	-	4	4	15	6.7
August	8	12	4	2	4	30	13.4
September	3	9	9	6	5	32	14.3
October	2	7	3	6	2	20	8.9
November	3	4	-	3	1	11	4.9
December	1	6	3	5	5	20	8.9
Total	33	66	32	41	52	224	100.0

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TABLE 8. - Fatalities from falls of roof, face, or rib in coal mines, by State and size of mine, 1978-80*

State	1978				1979				1980			
	Small mines[1]		Large mines[2]		Small mines[1]		Large mines[2]		Small mines[1]		Large mines[2]	
	No. of mines	No. of fatalities	No. of mines	No. of fatalities	No. of mines	No. of fatalities	No. of mines	No. of fatalities	No. of mines	No. of fatalities	No. of mines	No. of fatalities
Alabama	2	-	19	1	6	-	19	6	8	-	22	-
Colorado	10	-	23	-	14	-	24	1	16	-	23	2
Georgia	-	-	-	-	-	-	-	-	-	-	-	-
Illinois	3	-	30	2	3	-	29	3	7	-	32	4
Indiana	1	-	3	-	-	-	-	-	2	-	3	-
Iowa	-	-	2	-	-	-	-	-	-	-	1	-
Kentucky	450	2	316	2	360	2	324	12	399	2	354	4
Maryland	1	-	4	-	1	-	4	2	-	-	4	-
Montana	1	-	-	-	-	-	-	-	-	-	1	-
New Mexico	-	-	1	-	-	-	-	-	1	-	1	-
Ohio	7	-	26	1	6	-	21	1	7	-	20	1
Oklahoma	-	-	2	-	-	-	-	-	2	-	-	-
Penna. Anth.	72	-	3	-	56	1	3	-	63	-	3	-
Penna. Bit.	26	-	118	4	31	-	111	4	45	1	108	6
Tennessee	41	-	47	-	41	2	42	2	37	-	38	1
Utah	3	-	28	2	2	-	17	4	30	-	25	-
Virginia	276	2	194	5	281	4	180	4	292	1	212	2
West Virginia	292	1	489	11	270	3	427	13	245	-	423	8
Wyoming	-	-	3	-	1	-	3	2	-	-	3	-
Total	1,107	5	1,308	28	1,072	12	1,204	54	1,134	4	1,273	28

[1]Those mines that regularly employ 14 employees or fewer underground.
[2]Those mines that regularly employ 15 employees or more underground.

*Chart for 1981-82 continued on next page.

TABLE 9. - Fatalities from falls of roof, face, or rib in coal mines, by State and size of mine, 1981-82

State	1981				1982				Total Fatalities
	Small mines[1]		Large mines[2]		Small mines[1]		Large mines[2]		
	No. of mines	No. of fatalities	No. of mines	No. of fatalities	No. of mines	No. of fatalities	No. of mines	No. of fatalities	
Alabama	12	-	20	1	13	1	21	2	11
Colorado	19	-	22	3	18	-	24	2	8
Georgia	-	-	-	-	1	-	-	-	-
Illinois	4	-	32	-	9	-	37	3	12
Indiana	2	-	2	-	1	-	2	-	-
Iowa	-	-	1	-	-	-	-	-	-
Kentucky	438	6	366	5	466	4	359	10	49
Maryland	-	-	4	-	1	-	5	-	2
Montana	1	-	-	-	-	-	-	-	-
New Mexico	1	-	1	-	2	-	1	-	-
Ohio	7	-	19	-	6	-	15	1	4
Oklahoma	2	-	1	-	1	-	1	-	-
Penna. Anth.	84	-	2	-	78	-	5	-	1
Penna. Bit.	44	-	97	5	54	-	93	1	21
Tennessee	37	-	37	1	38	1	38	-	7
Utah	4	-	26	2	8	-	31	5	13
Virginia	302	1	220	5	252	2	233	4	30
West Virginia	228	3	410	8	221	2	431	13	61
Wyoming	-	-	3	1	1	-	2	2	5
Total	1,185	10	1,263	31	1,170	10	1,290	43	234

[1]Those mines that regularly employ 14 employees or fewer underground.
[2]Those mines that regularly employ 15 employees or more underground.

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TABLE 9. - Fatalities from falls of roof, face, or rib, by distance from the face and area of accident, 1978-82

Distance from face to point of accident	1978	1979	1980	1981	1982	Total	%
1 - 7 feet	3	15	5	9	6	38	17.0
8 - 25 feet	18	40	22	22	28	130	58.0
26 - 100 feet	8	7	2	9	6	32	14.3
Over 100 feet	3	3	1	1	2	10	4.5
Unknown	1	1	2	-	10	14	6.2
Total	33	66	32	41	52	224	100.0
Area of accident							
Producing areas[1]	29	66	29	40	46	210	93.8
Abandoned areas	-	-	-	-	1	1	.4
Other areas	4	-	3	1	5	13	5.8
Unknown	-	-	-	-	-	-	-
Total	33	66	32	41	52	224	100.0

[1] Considered as the area between the entrance of producing entries and the active faces therein.

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TABLE 11. - Fatalities from falls of roof, face, or rib, by mining experience, 1978-82

Mining experience	1978	1979	1980	1981	1982	Total	%
0 - 1 year	3	7	-	5	6	21	9.4
2 - 5 years	13	23	14	13	17	80	35.7
6 - 10 years	2	21	9	16	14	62	27.7
11 - 15 years	7	4	7	3	7	28	12.5
16 - 20 years	1	2	-	2	2	7	3.1
21 - 25 years	1	1	-	2	1	5	2.2
26 - 30 years	3	5	1	-	2	11	4.9
31 years and over	3	1	1	-	2	7	3.1
Unknown (not reported)	-	2	-	-	1	3	1.3
Total	33	66	32	41	52	224	100.0

TABLE 12. - Fatalities from falls of roof, face, or rib, by job experience, 1978-82

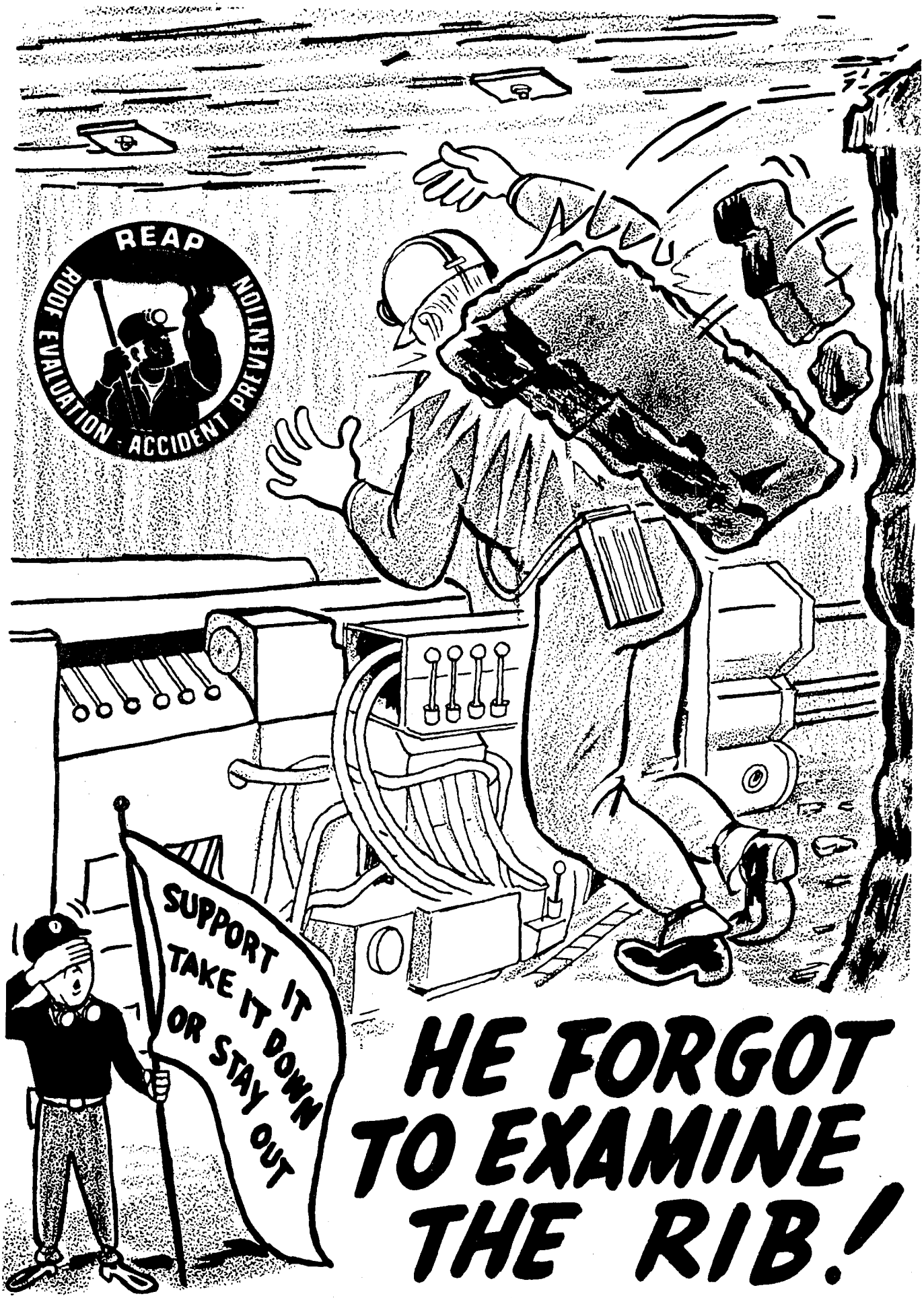
Job experience	1978	1979	1980	1981	1982	Total	%
0 - 1 year	18	26	9	21	26	100	44.6
2 - 5 years	11	29	14	15	15	84	37.5
6 - 10 years	2	9	8	2	6	27	12.1
11 - 15 years	2	2	1	1	3	9	4.0
21 - 25 years	-	-	-	-	-	-	-
31 years and over	-	-	-	-	-	-	-
Unknown (not reported)	-	-	-	2	1	3	1.3
Total	33	66	32	41	52	224	100.0

TABLE 13. - Fatalities from falls of roof, face or rib, by experience at mine (company), 1978-82

Experience at mine	1978	1979	1980	1981	1982	Total	%
0 - 1 year	7	24	6	19	21	77	34.4
2 - 5 years	15	21	15	11	12	74	33.0
6 - 10 years	3	16	8	7	12	46	20.5
11 - 15 years	1	-	2	2	4	9	4.0
16 - 20 years	-	-	1	2	1	4	1.8
21 - 25 years	2	-	-	-	-	2	.9
26 - 30 years	2	-	-	-	1	13	1.3
31 years and over	1	1	-	-	1	3	1.3
Unknown (not reported)	2	4	-	-	-	6	2.7
Total	33	66	32	41	52	224	100.0

TABLE 14. - Fatalities from falls of roof, face, or rib, by age of person, 1978-82

Age of person	1978	1979	1980	1981	1982	Total	%
18 - 21	2	2	1	1	2	8	3.6
22 - 25	5	13	5	10	8	41	18.3
26 - 30	8	16	7	10	13	54	24.1
31 - 35	3	14	4	7	4	32	14.3
36 - 40	4	7	6	8	10	35	15.6
41 - 45	4	7	3	1	7	22	9.8
46 - 50	1	4	5	1	3	14	6.3
51 - 55	4	2	1	1	1	9	4.0
56 - 60	2	1	-	2	2	7	3.1
61 - 65	-	-	-	-	2	2	.9
66 and over	-	-	-	-	-	-	-
Total	33	66	32	41	52	224	100.0


REAP
ROOF EVALUATION - ACCIDENT PREVENTION
SUPPORT IT
TAKE IT DOWN
OR STAY OUT
HE FORGOT TO EXAMINE THE RIB!

ABSTRACT FROM FATAL ACCIDENT

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

FATAL POWERED HAULAGE ACCIDENT

GENERAL INFORMATION: A scoop operator was fatally injured when his head was caught between a brow in the mine roof and the frame of the battery-powered scoop he was operating. The victim had a total of 2 years mining experience, 2-1/2 months as a scoop operator.

DESCRIPTION OF ACCIDENT: The underground crew under the supervision of the foreman entered the mine via rubber-tired mine cars pulled by battery-powered tractors. Upon arrival, the foreman instructed the battery-powered scoop-operator to finish loading the loose coal from the face of No. 6 entry and then move to No. 1 entry. After moving to No. 1 entry, the scoop-operator had to wait a few minutes for the face to be blasted. He was in the process of loading the sixth scoop of coal from the face when the foreman arrived in the place. They discussed the loading procedures and the foreman cautioned the scoop-operator to be careful while loading in an area of the place where approximately 12 inches of immediate roof had been taken in the face area for additional vertical clearance. The foreman also instructed the scoop-operator to go after roof bolting supplies after he had loaded the trip of mine cars. The scoop-operator finished loading the scoop and left No. 1 entry going to the loading point. The foreman then left and proceeded across the section to check on other activities. About 10 minutes later the roof bolter helper went to the supply car looking for the scoop-operator. Not finding him, he asked the foreman where he was. The foreman asked the two motormen at the loading point if they had seen the scoop-operator and they said no. He then traveled to the No. 1 entry where he found the victim in the deck of the scoop with his head caught between the outby edge of the brow (erected where roof had been taken for additional clearance) and the frame of the scoop. He quickly summoned help from nearby employees and examined the victim for life signs. Not finding any, the scoop was pushed inby a few inches to free the victim's head. The victim was removed from the scoop deck and artificial respiration was administered to no avail.

CAUSE: The accident and resultant fatality occurred because the victim failed to exercise the necessary precautionary measures while working in an area where abrupt changes in vertical clearance were present.

ABSTRACT FROM FATAL ACCIDENT

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

FATAL FALL OF MATERIAL ACCIDENT

GENERAL INFORMATION: An equipment operator was fatally injured when he was buried by a slide of sand and gravel.

Sand and gravel was mined at grade level from an embankment 30 to 40 feet high with a front-end loader.

The material mined at this location consisted of stone, stone and sand, clay and silt which laid in bedding planes at approximately 30 degrees from the horizontal in varied laminations and thicknesses. Under normal mining conditions the material would would free-fall continuously until a stable bank was achieved. At the time of the accident, mining was being concentrated in a heavy sand area due to a demand for sand. Although the material was free-falling, it was not sufficient to meet the mining demand. This mining method resulted in an unstable, verticle pit bank.

DESCRIPTION OF THE ACCIDENT: The victim reported for work and due to an illness of one employee the victim was asked to serve as both loader operator and truck driver. He had performed this task on previous occasions.
Evidence indicates that the victim had placed four bucket loads of material on the haulage truck and returned to the embankment and loaded the fifth. He then positioned the loaded bucket against the embankment and climbed thereon, without known reason, before the slide of material occurred. The force and volume of the material pinned the victim into the loader bucket completely covering his body, with the exception of the right hand.

CAUSE OF THE ACCIDENT: The primary cause of the accident was the collapse of an unstable pit wall. Factors contributing to the severity of the occurrence included the height of the bank being mined and the victim positioning himself, for some unknown reason, between the embankment and the loader bucket.

RECOMMENDATIONS:

1. A reevaluation of the mining method should be made to ensure that the equipment used to mine the material corresponds with the height of the face being mined. This will allow control of the bank without endangering workers or equipment.

2. All persons should be reinstructed concerning the hazards involved when working on or around pit banks.

HOLMES SAFETY ASSOCIATION
POWER TO BURN

You have some friends you have never met. They are located in every state, down in the Gulf of Mexico, and even in some foreign countries. You may not have the opportunity of meeting them in person, but they play an important part in your daily life. Some of them are roughnecks, roustabouts, refinery operators and truck drivers. They, and their co-workers, work as a team to find, produce, refine and transport gasoline to your neighborhood service station.

Have you ever paused to consider how your life would be without gasoline? How would you get to work or to church? How would you do your shopping or get your children to school? You would have to push the lawn mower all summer, and rowing a boat does not leave much time - or energy - for fishing. Water skiing - you could forget it.

Gasoline is a two-fisted source of energy. Properly used, it supplies power for your lawn mower, outboard motor, farm tractor, and of course, your family car. Improperly used, it can snuff out a life and destroy property. It provides pleasure and enjoyment for countless millions each year. But many persons each day force gasoline into a role it was never intended to play. This causes accidents. The culprit in these accidents, however, is not the gasoline.

Gasoline is designed to burn. It is refined under exacting standards, it vaporizes readily, and these vapors burn to give us power. Gasoline, however, cannot use its "power to burn" selectively. It is not like the All-American athlete who can be a tiger on the gridiron and a gentleman away from the stadium. Gasoline will burn on your hands or arms just as quickly as it will burn in your car's engine. Each of us has the responsibility to use gasoline's "power to burn" properly and to avoid its misuse. Recently a housewife in Tulsa, Oklahoma applied gasoline to the wash water and detergent in her washing machine. The vapors from the gasoline were ignited by the flame beneath a hot water heater. Fortunately, the fire was extinguished quickly and the housewife escaped with only a good scare and some singed hair.

Gasoline is a fuel. It never should be used in a washing machine to clean clothes, or poured down a sink drain to dissolve grease, or used on the floor to clean up black heel marks, or applied to clothing to remove soil spots. Gasoline is not made to be used a a solvent or cleaning agent. There are other products which will do these jobs safer and better. In one accident, two women were burned when vapors were ignited after they had used gasoline in a solution to wash their hair!

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What does it take to make gasoline vapors burn? Only air and a source of ignition. You don't have to "shake well" before using, or "spray on lightly," or "let set overnight." It is ready to go! Gasoline will produce flammable vapors even when its temperature is lowered to 40 degrees below zero!

Have you ever watched a cat sneak up on a sleeping dog? The cat will silently creep across the floor, then explode in action and you have a fight on your hands. Gasoline, when improperly used, can be a lot like that cat. The vapors are heavier than air and will flow from an open container to the floor. They will drift across the floor to a source of ignition. Then you have a real fight on your hands. Suppose you leave an open pan of gasoline on a basement work bench. The vapors will form above the gasoline, spill over the edge of the pan, and flow down the edge of the bench to the floor. They then will creep across the floor to the flame on a furnace or a hot water heater. When ignited, the flame will flash back to the pan with explosive force and the gasoline vapors will continue to burn until extinguished or until the source of fuel is exhausted. But meanwhile, the house may be on fire!

An open flame is not the only source if ignition for gasoline vapors. In your car, a spark plug does the trick. The electric arc which occurs when you operate a light switch or pull an electric plug out of a wall socket can ignite the vapors. The hot coils on an electric heater or the sparks from the motor of an electric drill can cause trouble also.

Once the gasoline is ignited, how will you put it out? You cannot extinguish a gasoline fire with water unless you have specialized water fog equipment. Water will only agitate the gasoline and spread the fire thereby increasing its intensity. You must remove the source of fuel or the air. A tight-fitting lid placed on the container will extinguish a pan fire by smothering it. Baking soda and sand also can be used effectively to extinguish a fire involving gasoline that has been spilled. A good carbon dioxide or dry chemical fire extinguisher will do an excellent job. A carbon dioxide or dry chemical extinguisher purchased for your home is a good investment.

In the event you have a gasoline fire, call your fire department. You should attempt to extinguish the fire only if it is small. If it is of any magnitude, rely on your fire department. Do not endanger your safety. However, if you keep gasoline where it belongs, and use it properly, you should never need to worry about how to put out such fires.

Here are some tips on how to keep the harness on this powerful workhorse:

1. If you need gasoline at your home for your power lawn mower or similar equipment, keep it stored in an approved gasoline container.

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GASOLINE - DANGER! EXTREMELY FLAMMABLE. HARMFUL OR FATAL (IF SWALLOWED).

Keep away from heat, sparks, and open flame.

Keep container closed.

Avoid repeated or prolonged contact with the skin.

Avoid prolonged breathing of vapors.

If swallowed, do not induce vomiting; call physician immediately.

Keep out of reach of children.

The label precautions listed above should always be followed. If your container does not have a label, ask the dealer at your service station for one.

2. Never store gasoline in a glass container. The glass could break and cause a fire.

3. Store the gasoline out of your home if possible. It is advisable to restrict the quantity you keep at home to one gallon or less.

4. Do not use gasoline to clean paint brushes, clothing and other household items. Use a product that will not produce flammable vapors below 100 F.

5. Turn off the engine on your lawn mower, and other gasoline engine devices, when you refill the gasoline tank. Use a funnel or spout to fill the tank and avoid spilling gasoline on the engine. If the engine is hot, let it cool a few minutes before you fill the tank. Keep metal to metal contact between the gasoline container and the tank on the engine. Do not refuel your lawn mower in the garage. Take it outside.

6. Do not use gasoline to start a fire in your outdoor grill or in your fireplace. The use of gasoline for this purpose has caused many serious burns and some fatalities. Also, avoid using gasoline to rekindle hot coals.

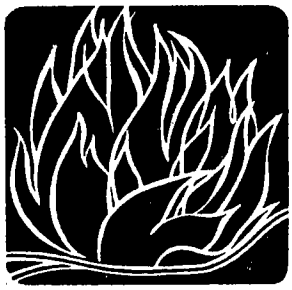
7. Avoid having your car's gas tank overfilled just before parking in the garage. The gasoline may expand and run out onto your garage floor. A source of ignition, such as a clothes dryer or a hot water heater, could ignite the vapors.

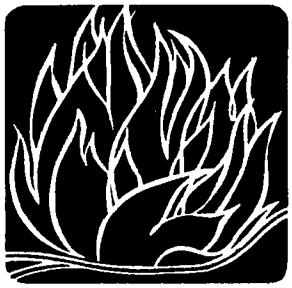
-MORE-

8. When you haul a small can of gasoline in your car trunk for your outboard motor or your camp stove, leave room in the can for expansion. Of course, use only an approved gasoline container.

9. Anytime you transfer gasoline from one container to another, do that job outside in the open air away from sources of ignition. This will permit the vapors to disperse quickly and safely. Remember - No Smoking!

Gasoline puts power at your finger tips. Use it and enjoy it, but use it safely.



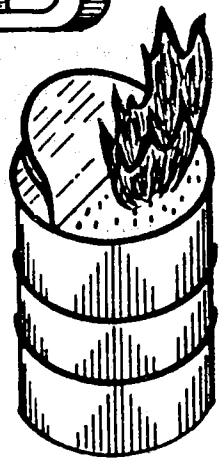


THE FOUR TYPES OF FIRES

A COMBUSTIBLE MATERIAL

Timber
Smoldering Trash
Card Board Boxes
Wooden Pallets
Dry Rags
Tires

B FLAMMABLE LIQUID

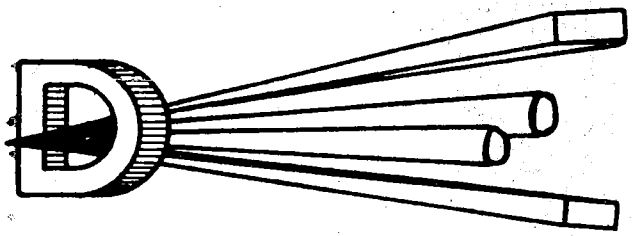


Lubricating Oils
Greases
Fuel Oils
Gasoline

C ELECTRICAL

Electrical Motor
Battery Equipment
Battery Charging Station
Junction Box
Transformer
Circuit Breaker

D COMBUSTIBLE METAL

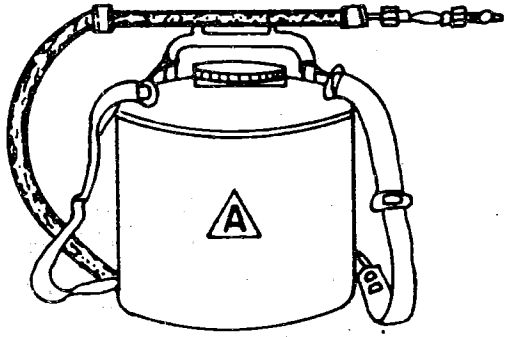


Sodium
Titanium
Zirconium
Magnesium

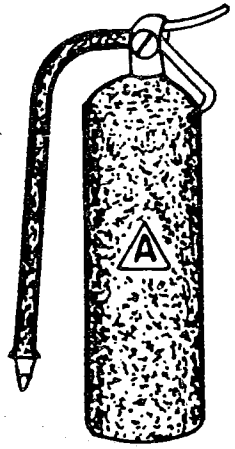
COMMON TYPES OF FIRE EXTINGUISHERS

WATER CARRIERS

For Class A Fires Only



PUMP TANK



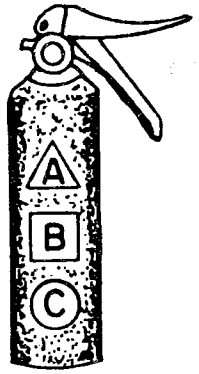
PRESSURIZED WATER

Do Not Use Water on Class B and C Fires

MULTI-PURPOSE

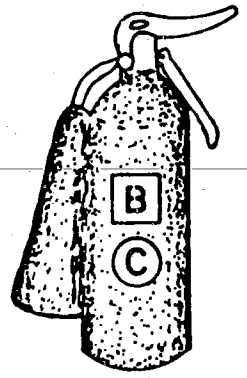
For All Types of Fires

EXCEPT Metal Fires



CARBON DIOXIDE

For Class B or Class C Fires



Class	A	Ordinary Combustibles
Class	B	Grease and Other Flammable Liquids
Class	C	Electrical Fires

TIPS ON USE:

Stand close to the fire and aim at the base of the fire using a side-to-side sweeping motion to smother the fire. Stand by in case of reflash.

H.S.A. SAFETY TOPIC

MSHA ASKS MINING COMMUNITY AND PARENTS TO SPREAD THE WORD THAT ABANDONED MINING PROPERTIES ARE POTENTIAL DEATH TRAPS

Abandoned mines and quarries have claimed the lives of many adults and children in recent years. Besides suffocations and drownings at these sites, fatalities have also resulted from head, neck and back injuries, the Department of Labor's Mine Safety and Health Administration's (MSHA) records indicate.

To help prevent such accidents, MSHA and the Commonwealth of Massachusetts Department of Labor and Industries started a new program, Trespass Accident Program Safety, "TAPS", in 1984. Elementary and high school students attended abandoned properties training sessions at their schools and parents received new releases warning of the health and safety dangers existing at idle or abandoned mine sites. Mine inspectors also alerted mine operators of the problems occurring at these sites especially during spring and summer.

"We are hoping to continue this program nationwide," said David A. Zegeer, Assistant Secretary, MSHA. "We want to spread the word about the potentially hazardous conditions at these inactive properties through public service announcements, newspapers and training sessions for children and teenagers."

The "TAPS" program has already shown promise in Massachusetts. Compared with five abandoned mines/quarry deaths that occurred during 1984, there have been no deaths in Massachusetts as of this date.

In Maine, New Jersey and New Hampshire, "TAPS" is currently being introduced to students and MSHA is encouraging other states to become more involved with the program.

Earlier this month, a 16-year old St. Louis, Missouri, boy was buried in a sand pile near the Mississippi River. He died in an attempt to rescue a 12-year old boy who had also fallen through the unstable 65-foot-high pile of sand.

"We are deeply concerned about the safety of youngsters who trespass on properties that are unfenced and unguarded," said Zegeer, "or those who ignore the "no trespassing signs." "Even though some of these locations are sometimes outside the jurisdiction of MSHA, the agency wants to make the public aware of how deadly all the hazards can be."

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Serious injuries and deaths have also resulted from the misuse of abandoned strip mines as swimming holes. They have also been used for hiking, climbing and racing vehicles. Falling rock, loose and shifting dirt and near-freezing water temperatures, especially during the warm weather months have accounted for numerous accidents.

MSHA accident reports indicate that the ages of victims at abandoned mining properties have ranged from five to approximately 66 years old. In some cases, victims were inexperienced explorers, teenagers or children who ignored trespass warning signs and climbed over fences to enter the properties. Some victims entered idle or intermittently operated underground mines that had a combination of oxygen-deficient air, an explosive atmosphere or poor roof conditions.

Mine operators are being alerted by MSHA through the "TAPS" program of the dangerous consequences which threaten trespassers on their mining properties. Hazardous sites not under MSHA's jurisdiction are receiving special attention by city officials, police, school systems, Boy Scouts, fire departments and rescue squads.

"MSHA is urging the public to spread the word about the safety hazards of abandoned properties," said Zegeer. "If the mining community and state and local governments can all devote their efforts towards getting the word out to people about the hazards at these sites, we can all be assured a safer spring and summer."

Every Job Can Be Done Safely!!

SUMMER HEAT STRESS ALERT

Historically, the effects of heat stress have been viewed mainly as an occupational health hazard in a limited number of industries. Glassmaking, steelmaking, foundry operations and other industries having heat sources have traditionally been areas of concern. Deep underground mining operations, especially some of the Nation's metal mines, subject workers to high temperature and humidity. It is also apparent that surface mine workers can be exposed to bright sunlight, earth-scorching temperatures and high humidity during the summer months and subsequently suffer from heat-induced sickness.

Surface mine operators and miners should be made aware of the potential dangers of high temperatures during the summer months and mine operators should have plans in place to prevent heat-related ailments. Mine operators should medically screen employees assigned to work in hot, humid environments and keep the exposure of susceptible workers at a safe level. Mine operators can control exposures by engineering measures, such as the installation of shaded or cooled rest areas, or the use of air-conditioned equipment compartments or control rooms. Administratively, exposures can be controlled by worker rotation and frequent work breaks. Adequate cool drinking water should be supplied at the worksite and, where necessary, the use of salt tablets for replenishing body losses may be advised.

Not only are the effects of heat stress suffered by people at their occupations, but also at home-related chores and recreational activities. Lawn mowing, gardening, house cleaning and strenuous pursuits, such as tennis, running and biking in high temperatures and humidities, can exact a similar toll on participants. Just as at the job site, proper precautions will prevent a person from becoming a victim of a heat-related illness. Moderate activity, along with cool drinks, timely rest periods in shady or cool areas, and the use of loose-fitting, light colored clothing, is recommended as a means of reducing the effects of summer's heat.

Equally important is the person's general health which should be considered before undertaking any type of work or exercise in a hot and humid environment. Remember, whether you're at work or play, keeping these heat-stress tips in mind will prevent you from suffering the effects of heat-related illnesses.

- MORE -

HEAT STRESS FIRST AID

Cause	Symptoms	Treatment
Heat Stroke	Hot, dry skin; Elevated body temperature	Immediate body cooling (to prevent brain damage) through use of cooler environment, ice, water or fans; watch for signs of shock; seek medical help if needed
Heat Exhaustion	Cool, damp, pale skin; weakness, weak rapid pulse, nausea, vomiting fainting	Placement in a cooler environment; replacement of fluids and salt; rest; seek medical help if needed
Heat Cramps	Painful arm, leg and abdominal muscle contractions; cool, damp skin; dilated pupils; weak pulse	Replacement of salt, preferably with meals; drinking lightly salted liquids

COUNCIL NEWS

TWO DISTRICT COUNCILS FORMED

On June 13, the Northern Colorado/Southern Wyoming District Council was established in Rawlins, Carbon County, Wyoming. Joseph Vendetti, Carbon County Coal Company and Doug Malicoat, Texasgulf were elected president and secretary.

On June 18, the Great Lakes District Council was formed in Mackinaw City, Cheboygan County, Michigan with David Mickelsom, Inland Lime and Stone Company elected as president and Nancy Staley, Medusa Cement, elected as secretary.

HOLMES SAFETY ASSOCIATION

Notebook

1. The HSA now has data available on MSHA personnel who have established safety chapters since 1980. Please contact:

Rita Hansen
MSHA/HSA
P. O. Box 25367, Rm. 266
Denver, CO 80225
303-236-2791
FTS-8-776-2791

2. The HSA has a supply of "First Aid Safety Manual Booklets" available upon request. The manual is 4" x 7". For copies of this booklet, please contact:

Jeanne Ryan
MSHA/HSA
4800 Forbes Ave., Rm. 268A
Pittsburgh, PA 15213
412-621-4500 Ext. 649
FTS-8-721-8650/8649

3. **REMINDER - TO ALL DISTRICT COUNCIL PRESIDENTS AND SECRETARIES - COUNCIL COMPETITION REPORTS MUST BE RECEIVED BY AUGUST 31, 1985, TO BE IN COMPETITION FOR 1985.**

*Members: Short news of your Council activities can be included in the Notebook. Information needed two months in advance. Forward to:

Louise
MSHA-Holmes Safety Association
4800 Forbes Avenue, Rm. 268A
Pittsburgh, PA 15213

LAST WORD

RANDOM THOUGHTS

Most of us know how to say nothing, but few of us know when.

A man who is scared by the shadow of doubt doesn't have a ghost of a chance.

A person shouldn't allow yesterday to use up too much of today.

Some people put out nothing but a chill, and wonder why the world is cold.

PICK YOUR SPOT

If you've got a joke, a bit of gossip or some comment you want to make to a buddy, be sure you pick the right time to let him know about it.

Never distract another worker's attention unless it's safe for him to turn his attention away from his work. One slight distraction could cause a big accident.

Thoughts worth remembering: Half of life is giving in--the other half is giving out. If the going seems easy, you just might be going downhill. A man's worth should be judged by what he does when he needn't do anything.

If you find a man smiling as things go wrong, you may assume he just thought of someone he can blame it on.

By the time a man gets to greener pastures, he can't climb the fence.

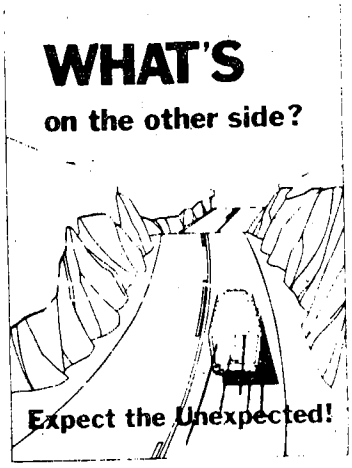
America is the only country where it takes more brains to make out the tax return than it does to make the income.

Pajamas of Superior Quality

The proprietor of a big store noticed an assistant dozing up against the wall of one of the departments. He consulted the manager about the matter.

"I can't do a thing with him," said the manager. "I've had him in three different departments, and he dozes all day long."

"Put him at the pajama counter," suggested the proprietor, "and fasten a card on him with the words: 'Our pajamas are of such superior quality that even the man who sells them can't keep awake.'"



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Denver, Colorado 80225

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United States Department of Labor
MSHA
Mine Safety and Health Administration

HOLMES SAFETY ASSOCIATION
MEETING REPORT FORM

For the month of _____

TOTAL meetings held this month _____

TOTAL attendance this month _____

Chapter Number _____ (See address label, if incorrect, please indicate change.)

_____
(Signature)

_____
(Telephone No.)

_____
(Title)

FILL OUT - FOLD AND STAPLE - FREE MAIL-IN

NOTE: BE SURE OUR ADDRESS SHOWS

If you do not care to receive this Bulletin, please check here and return this form. ☐

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 continous 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

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