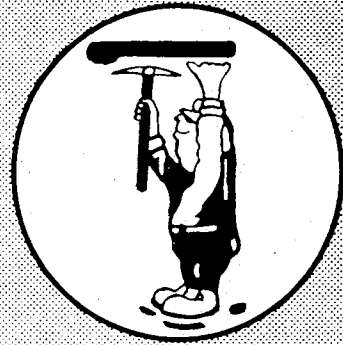


JULY 1980



BULLETIN



United States Department of Labor

MSHA

Mine Safety and Health Administration

July 1980

CONTENTS

1. HIGHLIGHTS, "Holmes Safety Association National Council Meetings"
2. Safety Topic, "Why First Aid"
3. Safety Topic, "Fatal Roof Fall Accident"
4. Safety Topic, "Wearing and Caring for Hard Hats"
5. Safety Topic, "Fatal Electrical Accident"
6. Safety Topic, "Abandoned Mine Warning"
7. Safety Topic, "Safe Control of Pit Walls"
8. Safety Topic, "Part 55.3--Ground Control--Metal, Nonmetal Mine Safety"
9. Posters
10. Meeting Report Form (chapters only)

President
Walter J. Vicinelly
Harrisburg, PA

July 1980



Room 7K
301 W. Congress St.
Tucson, AZ 85701
Telephone: (602) 792-6631



MINE SAFETY AND HEALTH ADMINISTRATION
HOLMES SAFETY ASSOCIATION

Secretary-Treasurer
WILLIAM H. HOOVER
Tucson, AZ



Four Parkway Center
Suite 102
Pittsburgh, PA 15220
Telephone: (412) 922-0220

HIGHLIGHTS

Executive and Regular Meetings

National Council

Holmes Safety Association

The meetings were held at the Quality Inn/Central, 1190 North Courthouse Road, Arlington, Virginia, May 28, 1980, with President William A. Eastgate presiding.

Forty-five delegates from 14 states, representing the mining, quarrying, metallurgical, mineral-extractive, and allied industries were in attendance.

Fifteen delegates were called upon for brief activity reports from their geographical council areas.

Moved, carried, and adopted: Nine proposals were nominated for grateful appreciation and exceptional services in promoting the humanitarian objectives of the Holmes Safety Association; the Association's highest honor, the "Merit Award." President Eastgate presented the award to the following:

- Jennings D. Breedon, subdistrict manager, MSHA, Monroeville, Pennsylvania;
- Maurice S. Childers, district manager, MSHA, Vincennes, Indiana;
- William M. Craft, district manager, MSHA, Madisonville, Kentucky
- William R. Devett, subdistrict manager, MSHA, Johnstown, Pennsylvania;
- David E. Hazlett, supervising engineer, Old Republic Insurance Company, Elderton, Pennsylvania
- William H. Hoover, chief, Holmes Safety Association, MSHA, Tucson, Arizona;

Charles E. Jones, coal mine inspection supervisor, MSHA, Wilkes-Barre, Pennsylvania;
 Angela B. Saunders, retired administrative services assistant, Holmes Safety Association, MSHA, North Huntingdon, Pennsylvania;
 Harold Turner, coal mine specialist, MSHA, Pikeville, Kentucky.

In recognition for his untiring and sincere efforts in the promotion of mine safety and furthering the humanitarian activities of the Association, John Takacs, MSHA coal mine inspector, Washington, Pennsylvania, was presented the "Promotion of Safety" award. William A. Eastgate, past president, was awarded the "President Award" for outstanding leadership by the incoming president-elect, Walter J. Vicinelly.

Moved, carried, and adopted:

Elected to 1980-1981 term

President	-	Walter J. Vicinelly	-	State
First Vice President	-	Willard A. Esselstyn	-	Labor
Second Vice President	-	Robert B. Lagather	-	MSHA
Third Vice President	-	C. William Parisi	-	Management
Secretary-Treasurer	-	William H. Hoover	-	MSHA

The following three delegates, representing the Holmes Safety Association, were elected to serve with the three previously elected on the board of directors of the Joseph A. Holmes Safety Association:

Term expires 1982

Edward J. Onuscheck
 Walter J. Vicinelly
 William H. Hoover

Six new members were nominated to serve on the executive committee bringing nationwide representation to 36 delegates.

Committees appointed by President Eastgate were:

Finance-Auditing Committee

John O. Miller (Chair)
 Herschel Potter
 Robert L. Vines

Merit-Awards Committee

Robert E. Barrett (Chair)
 William H. Hoover
 John O. Miller

Nominating Committee

Harry Thompson (Chair)
 Earle Rudolph
 David Hazlett

The National Council is now representing and servicing 4 state and 43 district councils, 1,429 safety chapters, with approximately 210,000 members within 43 states, plus the provinces of British Columbia, Ontario, and the Yukon Territory of Canada.

Of the 101 chapters formed in 1979, 34 were established west and 67 east of the Mississippi. At the close of 1979, there were 359 safety chapters west and 1,185 of the Mississippi including Canada.

Nationwide, chapter mines cooperatively reported and held over 88,740 safety meetings, with 1,033,335 members attending. State and district councils held 200 meetings, with 9,676 present.

The greatest organizational work chapter-wise in 1979 was in the states of Ohio, 14; Indiana, 9; Alabama and Eastern Kentucky, 8 each; Pennsylvania, 7; and Illinois and Montana, 6 each. The remaining 43 chapters were formed within 17 other states.

The nationwide circulation of the Holmes Safety Association's monthly safety "Bulletin" utilized for on-the-job safety meetings is continuously increasing.

The present status of the National, State, and District councils and chapters were highly complimented for their outstanding activities and methods of obtaining continuous improvements in the field of safety by many of the executives and delegates called to the floor for remarks representing management, labor, state, Federal, insurance companies, manufacturers and suppliers.

The delegates were very satisfied with the meeting room facilities, lodging, restaurant and hospitality suite all at one location. This saved the delegates a bit of energy, time and expense when previous meetings and lodging were less convenient.

Hats off to the Mine Safety Appliance Company, Fairmont Supply Company, and the Pennsylvania Bituminous Council who jointly sponsored the beverages and snacks, Tuesday evening, May 27, 1980.

President Walter J. Vicinelly heads a committee to raise financial sponsors for a hospitality night at the 1981 national meeting.

It was moved and carried that a contract be drawn up with the management of the Quality Inn/Central to hold the 1981 annual meeting at the same location.

W. H. Hoover
National Secretary
Holmes Safety Association



July 1980

HOLMES SAFETY ASSOCIATION MONTHLY SAFETY TOPIC

Why First Aid?

What would you do if a coworker or family member was suddenly injured or became ill? Right after an accident or illness occurs and before medical help can take over, there is a critical period in which the availability of a person skilled in first aid techniques can mean the difference between life and death for the victim.

There is an urgent need for first aid treatment at mining sites where medical help is usually not readily obtainable. It is the duty of every miner to be able to give proper emergency assistance until the victim is under professional medical care.

When a person is injured or ill, someone must take charge, send for a doctor, and apply first aid. The person taking charge must make a rapid but effective examination to determine the nature of the injuries.

Do not move the injured person until you have a clear idea of the injury and have applied first aid, unless the victim is exposed to further danger at the accident site. If the injury is serious, if it occurred in an area where the victim can remain safely, and if medical aid is readily obtainable, it is sometimes best not to attempt to move the person, but to employ such emergency care as is possible at the place until more highly qualified emergency personnel arrive.

When making an initial survey, a first aider will consider what witnesses to the accident tell him about the accident, what he observes about the victim, and what the victim tells him.

The first aider must not assume that the obvious injuries are the only ones present because less noticeable injuries may also have occurred. Look for the causes of the injury, this may provide a clue as to the extent of physical damage.

While there are several conditions that can be considered life-threatening, respiratory arrest and severe bleeding require attention first.

In all actions taken during the initial survey the first aider should be especially careful not to move the victim any more than necessary to support life. Any unnecessary movement or rough handling should be avoided because it might aggravate undetected fractures or spinal injuries.

SAFETY IS EVERYBODY'S BUSINESS

(For use in all mining operations)

Once respiratory arrest and severe bleeding have been alleviated, attention should be focused on other obvious injuries--open chest or abdominal wounds should be sealed, open fractures immobilized, burns covered and less serious bleeding wounds dressed. Again remember to handle the victim carefully.

Once the obvious injuries have been treated, the secondary survey can be made to detect less easily noticed injuries that can be aggravated by mishandling. If a victim with a spinal injury is mishandled they could suffer spinal damage, leading to paralysis. Also a closed fracture can become an open fracture if not immobilized. The secondary survey is a head to toe examination. Start by examining the victim's head, then neck, trunk, and extremities looking for any type of abnormalities such as swelling, discoloration, lumps, and tenderness that might indicate an unseen injury.

ABSTRACT FROM FATAL ACCIDENT

July 1980

HOLMES SAFETY ASSOCIATION
MONTHLY SAFETY TOPIC



FATAL ROOF FALL ACCIDENT

General Information: A roof fall accident occurred at the face of No. 1 left entry of a mine resulting in the death of a loading machine operator helper. The victim had about one year and 10 months mining experience, the last 5½ months of which were as loading machine operator helper.

Description of Accident: The 103 section crew, under the supervision of their foreman, entered the mine via portal bus, and traveled to the active working areas of the 103 section. The foreman then proceeded to examine the proposed work area and assign duties and work locations to crew members. The regular loading machine operator became ill and left the section. An experienced loading machine operator was called from a nearby section to operate the loading machine on the 103 section. In the meantime, the loading machine operator helper and the face drill operator operated the loading machine until the new operator arrived on the section. The new operator stated that after arriving on the section he informed the loader operator helper, the victim, that he could operate the loading machine. He declined the offer. Thereafter, coal production and preparation activities continued normally until a shuttle car trailing cable was cut.

Operations were resumed after the cable was repaired. The loader crew, consisting of the operator and the helper finished cleaning up the belt entry. Upon completion, they trammed the loading machine to the crosscut between the belt entry and No. 1 left air course. The operator then made a roof and gas test at the face. Loading operations were started in the No. 1 left air course. The operator stated that after loading four shuttle cars of coal out of the right side he saw a piece of draw rock that was loose in by the last row of roof bolts. The draw rock from the previous cut had been taken down and bolted up to the edge of the draw rock that was loose. The operator loaded two or three more shuttle cars and informed the helper to get a long rock bar that was located in the belt entry where they had scaled some brushed roof. The operator stated that they would take the rock down and load it out with the coal.

According to the operator, after a short period of time, he again instructed the helper to get the rock bar to take the rock down. The operator continued loading until the place was cleaned up except for approximately one shuttle car of coal that remained in

(For use in coal mining operations)

the left corner of the face. He was maneuvering the loading machine around to get in position to load the last shuttle car of coal and was looking back observing the direction of travel.

The shuttle car operator stated that after returning to the loading machine he observed the helper near the rib adjacent to the loading machine. After backing the shuttle car up to allow the loading machine maneuvering room, he turned back around and saw the roof fall at the face. He explained that he and the operator immediately investigated the fall and found that the helper was under the rock. They called for help after making an effort to move the rock. After the rock was moved, the victim was examined and no sign of life was visible. The victim received crushing injuries to the head and face.

Cause of Accident: The accident occurred when the victim was apparently attempting to test the roof inby the last row of permanent roof supports or preparing to install temporary roof supports after having been informed on two occasions that the roof was loose and needed to be taken down.



July 1980

HOLMES SAFETY ASSOCIATION MONTHLY SAFETY TOPIC

WEARING AND CARING FOR HARD HATS

1. Hard hats should never be worn on top of everyday hats and caps.
2. The sweatband should be adjusted so that the hat will not fall off or be blown off.
3. Hats should be worn squarely on the head, and not at an angle. The head harness is designed to give the optimum contact surface on the head.
4. The wearer should never attempt to repair a cracked shell. Damaged hats should be replaced immediately.
5. All hats and caps are designed to permit complete air circulation inside the crown. Boring holes in the crown for ventilation should be prohibited.
6. Some paints will reduce the dielectric protection, soften the shell material, and thus reduce impact protection.
7. A periodic inspection of hard hats should be made to check for cracks, dents, nicks, and abrasions.
8. Inspection of hats should include a check of the condition of webbing and sweatband.
9. Hats used primarily for electrical protection must be destroyed when damaged.
10. There should be at least 1- $\frac{1}{4}$ inches of clearance between the top of the head and the inside shell of the hat for impact protection and ventilation.

(For use in all mining operations)

SAFETY IS EVERYBODY'S BUSINESS

ABSTRACT FROM FATAL ACCIDENT

July 1980

HOLMES SAFETY ASSOCIATION
MONTHLY SAFETY TOPIC



FATAL ELECTRICAL ACCIDENT

General Information: A wash plant operator was fatally injured when he was electrocuted by a 480 volt short-circuited phase-to-ground fault.

The victim was attempting to remove a water hose inside the feed hopper of the cone crusher. The water hose which was held in place by a wire was connected to the adjacent feed conveyor. The victim had 13 months working experience.

Mining was being done by the single bench method using a scraper to extract and haul the material to the dumping site. The material was then transported by conveyor to be crushed, screened, and stockpiled.

Description of Accident: The front-end loader operator was hauling rock to the crusher with a front-end loader, when the plant operator (victim) arrived and assumed his duties of plant operator for about a half hour. The victim then decided that he needed to reposition the water hose in the feed hopper on top of the cone crusher to suppress the dust. After climbing up the side of the crusher, he positioned himself on the steel work platform approximately 4 feet below the top of the feed hopper and reached into the hopper to move the hose. The hose was secured with baling wire to the steel frame of C-96 conveyor, which extended over the hopper. When he reached into the hopper, the inside of his right arm contacted the metal side, at the same time that he grasped the baling wire, holding the hose with his left hand. His body, acting as a conductor, completed the short circuit. The conveyor and cone crusher were not physically or electrically bonded together. When the victim standing on the cone crusher contacted the C-96 conveyor his body created the short circuit between the two grounded phases exposing him to the elevated voltage of 480 volts.

The plant laborer and the front-end loader operator, at the same time noticed that the victim was in an abnormal position, and that his hat had fallen from his head. The front-end loader operator climbed up to the victim, touched him and both reportedly received electrical shocks. The front-end loader operator had touched the victim a second time before he realized that the victim was being held by the electrical current. He instructed the plant laborer, not to touch the victim. He jumped to the ground and ran to the switch panel to switch the power off. When the power was off, the victim started to fall and the plant laborer grabbed him and they both fell from the platform to the ground. It was determined that

(For use in all surface mining operations)

no injuries were sustained from the fall. The front-end loader operator returned, and started doing chest compressions while the plant laborer went for help. The plant foreman arrived a few minutes later and performed mouth-to-mouth resuscitation. None of the persons present at the time of the accident had been trained in C.P.R. The company had an MSHA-approved training program, but had not put it into effect at the time of this investigation. An ambulance was called and the paramedics administered C.P.R. and started an intravenous on the victim while transporting him to the hospital. He was pronounced dead upon arrival at the hospital. The cause of death was due to electrocution.

Cause of Accident: The company failed to detect two separate ground faults and the company failed to maintain the grounding circuit properly.

Recommendations: The installation of ground fault indication, either meters or lights, should be provided and a responsible person should be assigned to check them periodically.

Equipment ground wire to all equipment in addition to using structural steel for a ground path should be installed.

Only qualified people should be allowed to perform electrical work.

A practical and safe means of access, including substantial handrails on elevated platforms, should be provided at work areas where persons could fall.

FATAL ELECTRICAL ACCIDENT

Victim between two
ground faults

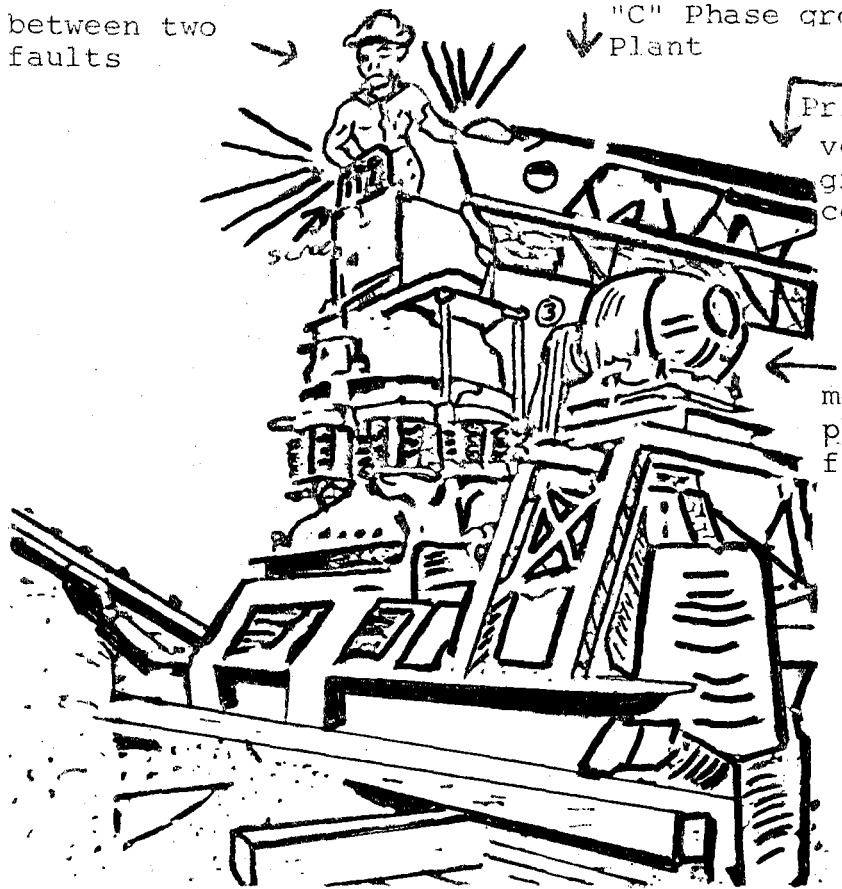
"C" Phase grounded on M.R.
Plant

Primary feed con-
veyor was not
grounded to the
cone crusher

480 volt 75H.P.
motor with "A"
phase ground
faulted

Single cross

Not to scale





July 1980

HOLMES SAFETY ASSOCIATION MONTHLY SAFETY TOPIC

ABANDONED MINE WARNING

The Mine Safety and Health Administration (MSHA) warns prospectors, exploring youngsters and vacationers that trespassing in quarries, sand and gravel pits, and abandoned or closed mines often results in serious injury or death.

Each year, especially in the spring and summer many incidents occur on surface and underground mining properties to trespassers unfamiliar with the dangers of the mining environment. Although the 1977 Mine Safety and Health Act makes mandatory the sealing of abandoned mines, MSHA emphasizes that the condition and whereabouts of literally thousands of mines abandoned prior to passage of the Act are unknown.

"Adults have no business venturing into areas not open to the public, and they should be careful, watchful and responsible in seeing that their children obey the same rules," Assistant Secretary for Mine Safety and Health Robert B. Lagather said. "Abandoned, idle mining properties are inherently dangerous, and using them for irresponsible play could turn a vacation into a nightmare."

Examples of the disasters abound. Last September in Pennsylvania, two boys died of asphyxiation after entering an abandoned mine shaft while playing. In an attempt to recover them, a police officer was also overcome and died several days later. Tests proved the deaths were caused by low oxygen and high carbon dioxide.

In December, while digging coal in an abandoned mine in Tennessee another man was electrocuted using an unsafe water pump.

The accidents do not always involve underground mines. Recently, in an abandoned quarry also in Tennessee, a teenage girl was killed when a 100-foot highwall collapsed, burying her under nearly 10 tons of rock and dirt.

Such accidents are common in pits or quarries used as playgrounds by children. In New York and Vermont alone, there were reported 17 known incidents in abandoned surface mines in 1979, two of which were fatal. All but two of the accidents involved children.

State governments around the country have not ignored the problem, and several are taking measures to locate and seal abandoned mines. Pennsylvania, for example, has an abandoned mine-filling program, and state mine reclamation officials in Illinois say they plan to fill and seal shafts at 30 to 40 abandoned mine sites in the southern part of the state this year.

(For use in all mining operations)

SAFETY IS EVERYBODY'S BUSINESS

Besides the hazards of open underground mine shafts and improperly sloped surface mine highwalls, some abandoned mines have dilapidated surface structures that could be dangerous.

Whether in search of fun, adventure or profit, the fact is that no one should trespass on abandoned mining property. The dangers cannot be ignored. What begins as an enjoyable outing could end in disaster.

ABSTRACT FROM FATAL ACCIDENT

July 1980

HOLMES SAFETY ASSOCIATION
MONTHLY SAFETY TOPIC



SAFE CONTROL OF PIT WALLS

General Information: Three youthful, temporary summer employees, ages 18 to 23, all inexperienced in mining and in their first day on this job, died when they were engulfed in a slide of sand and gravel which sloughed down from a near-vertical face in a sand and gravel pit.

Description of Accident: The material in this sand and gravel deposit was somewhat consolidated and stood in a face 55 feet high. Loose material was piled along the base to make the free face about 40 feet. The victims had been assigned to dig blast holes in this face manually, using long handled shovels. While they were doing so, a large section of 30 to 60 cubic yards sloughed off from above, enveloping them.

Recommendations: 1. Standards for the safe control of pit walls shall be established and followed by the operator. Mining methods shall be selected which will ensure wall and bank stability. 56.3-1 (Mandatory) 2. Miners shall not work near or under dangerous banks. Overhanging banks shall be taken down immediately or the areas shall be barricaded and posted. 56.3-5 (Mandatory) 3. New employees shall be indoctrinated in safety rules and safe work procedures. 56.18-6 (Mandatory)



(For use in all surface mining operations)



July 1980

HOLMES SAFETY ASSOCIATION MONTHLY SAFETY TOPIC

Excerpts from Code of Federal Regulations

Subchapter N--Metal and Nonmetal Mine Safety

Part 55.3--Ground Control

55.3-1 Mandatory. Standards for the safe control of pit walls, including the overall slope of the pit wall, shall be established and followed by the operator. Such standards shall be consistent with prudent engineering design, the nature of the ground and the kind of material and mineral mined, and the ensuring of safe working conditions according to the degree of slope. Mining methods shall be selected which will ensure wall and bank stability, including benching as necessary to obtain a safe overall slope.

55.3-2 Mandatory. Loose, unconsolidated material shall be stripped for a safe distance, but in no case less than 10 feet, from the top of pit or quarry walls, and the loose, unconsolidated material shall be sloped to the angle of repose.

55.3-3 Mandatory. To ensure safe operation, the width and height of benches shall be governed by the type of equipment to be used and the operation to be performed.

55.3-4 Mandatory. Safe means for scaling pit banks shall be provided. Hazardous banks shall be scaled before other work is performed in the hazardous bank area.

55.3-5 Mandatory. Men shall not work near or under dangerous banks. Overhanging banks shall be taken down immediately and other unsafe ground conditions shall be corrected promptly, or the areas shall be barricaded and posted.

55.3-6 Mandatory. Men shall approach from above loose rock and areas to be scaled and shall scale from a safe location.

55.3-7 Mandatory. Baffleboards, screens, cribbing, or other suitable barriers should be provided where movement of material into cuts constitutes a safety hazard.

55.3-8 Mandatory. The supervisor, or a competent person designated by him, shall examine working areas and faces for unsafe conditions at least at the beginning of each shift and after blasting. Any unsafe condition found shall be corrected before any further work is performed at the immediate area or face at which the unsafe condition exists.

(For use in all mining operations)

55.3-9 Mandatory. Men shall examine their working places before starting work and frequently thereafter, and any unsafe condition shall be corrected.

55.3-10 Banks, benches, and terrain sloping into the working areas should be examined after every rain, freeze, or thaw, before men work in such areas.

55.3-11 (Reserved)

55.3-12 Mandatory. Men shall not work between equipment and the pit wall or bank where the equipment may hinder escape from falls or slides of the bank.

55.3-13 Rock-bolt installations, where used, should be in accordance with recommendations of the Mine Safety and Health Administration or other competent agency.

55.3-14 through 55.3-49 (Reserved)

55.3-50 Mandatory. Material, other than hanging material, to be broken by secondary drilling and blasting, or by any other method shall be positioned or blocked to prevent hazardous movement before persons commence breaking operations. Persons who perform those operations shall work from a location where, if movement of material occurs, those persons will not be endangered.

55.3-51 Mandatory. Where manual scaling may be required at a work place, a scaling bar of sufficient length to place the user out of danger of falling material shall be provided. The scaling bar shall be blunt on the end held by the user. Picks or other short tools shall not be used for scaling when their use places the user in danger of falling material.

55.3-52 (Reserved)

55.3-53 Mandatory. When rock bolts are used as a means of ground support, anchorage test procedures shall be established and test, shall be conducted to determine the anchorage capacity of rock-bolt installations. Test results shall be in writing and made available to the Secretary or his duly authorized representative.

55.3-54 Mandatory. Rock bolts used as a means of ground support and which require torquing shall be torqued to a value within the range determined from information obtained by tests in the strata in which the rock-bolt assembly is used. In no case shall the applied torque cause a bolt tension that would exceed the yield point or anchorage capacity of the rock-bolt assembly being used.

55.3-55 Mandatory. When installing point-anchor rock bolts:

- (a) A torque test shall be conducted on at least every fourth installed bolt.

(b) Torque testing shall be conducted immediately after bolt installation.

(c) If the recommended torque has not been achieved, the equipment used to install the bolt shall be adjusted and the next bolt installed shall then be tested.

(d) If the recommended torque has not been achieved on the majority of bolts installed in a working place through equipment adjustment, supplemental support equivalent to longer roof bolts with adequate anchorage, steel or wood sets, or cribs shall be installed.

55.3-56 Mandatory. Rock bolt hole drill bits shall be easily identifiable by sight or feel and diameters shall be within a tolerance of ± 0.030 -inches of the manufacturer's recommended hole diameter for the anchor used.

55.3-57 Mandatory. If used in rock-bolt assemblies to reduce friction between the bolt head and the bearing plate, washers shall:

(a) Have hardness in the range of 35-45 HRC (Hardness Rockwell C Scale).

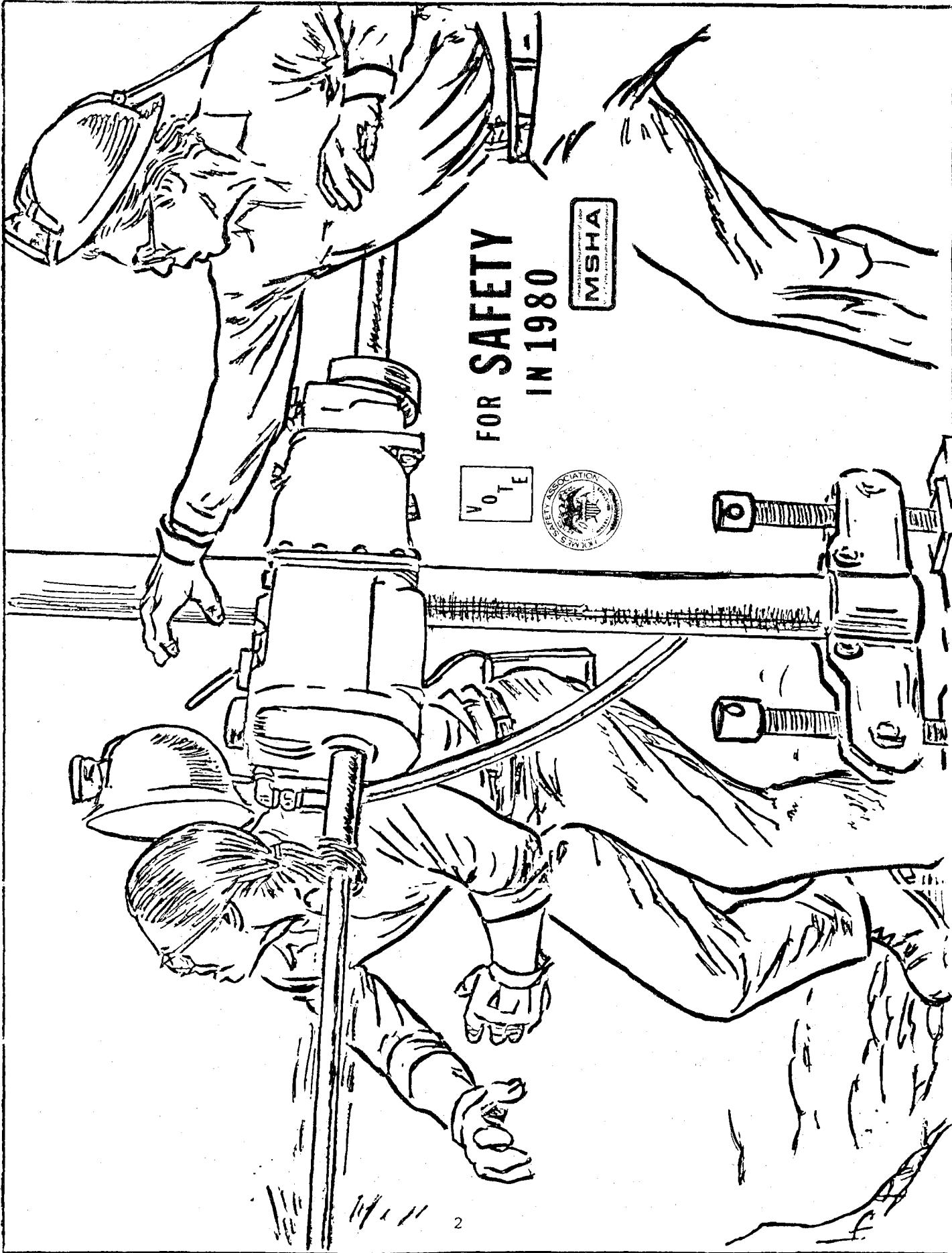
(b) Conform to the shape of the bolt head and bearing plate.

(c) Have sufficient strength to withstand loads up to the yield point of the rock bolt.



Hairnets and snoods should be considered standard wearing apparel for workers who prefer long hairlocks to the shorter trims. A snood, according to the dictionary, is a net or fabric bag pinned or tied on at the back of the head which is used to confine hair. Hair regulations should be adopted for the protection of employees from accidents resulting from entanglement of the hair in moving machinery.

(For use in all mining operations)



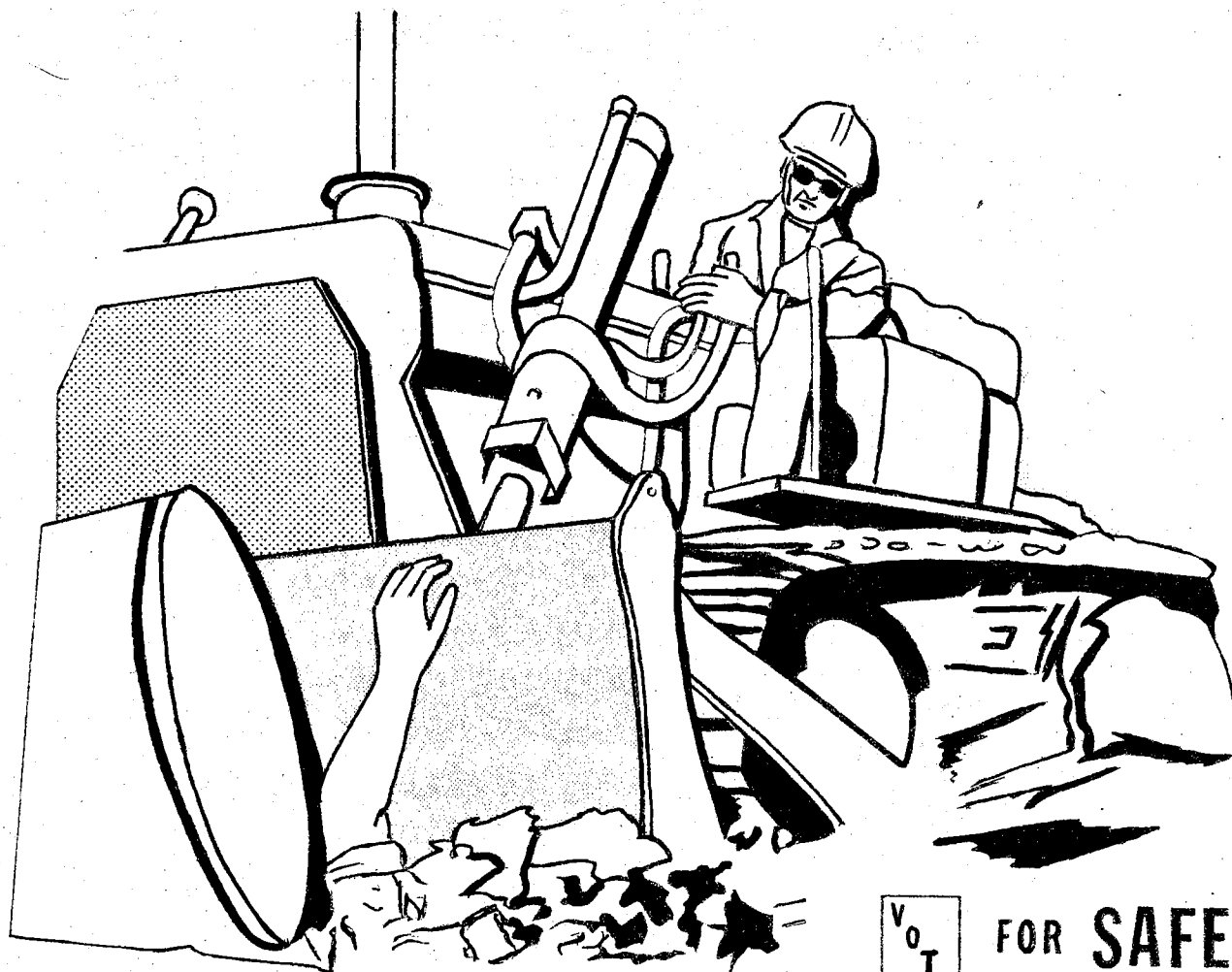
FOR SAFETY
IN 1980

VOTE

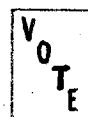


MSHA

Persons should not hitch rides on mobile equipment **UNLESS** Seats are Provided.



Don't tempt fate



FOR SAFETY
IN 1980

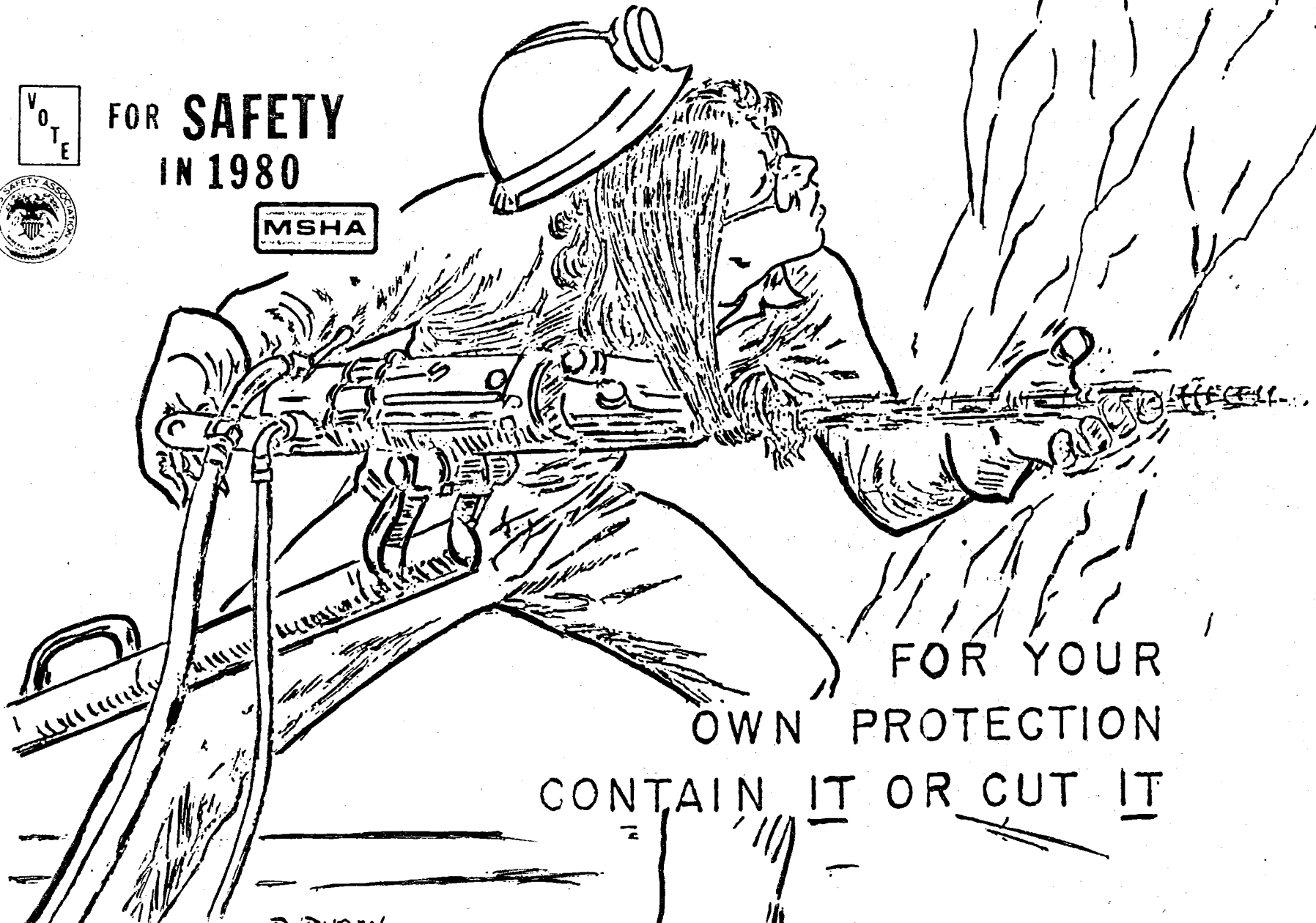


VOTE

FOR SAFETY
IN 1980



MSHA



FOR YOUR
OWN PROTECTION
CONTAIN IT OR CUT IT

D DURAN

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

POSTAGE AND FEES PAID
U.S. Department of Labor
LAB 441

OFFICIAL BUSINESS

FIRST CLASS MAIL