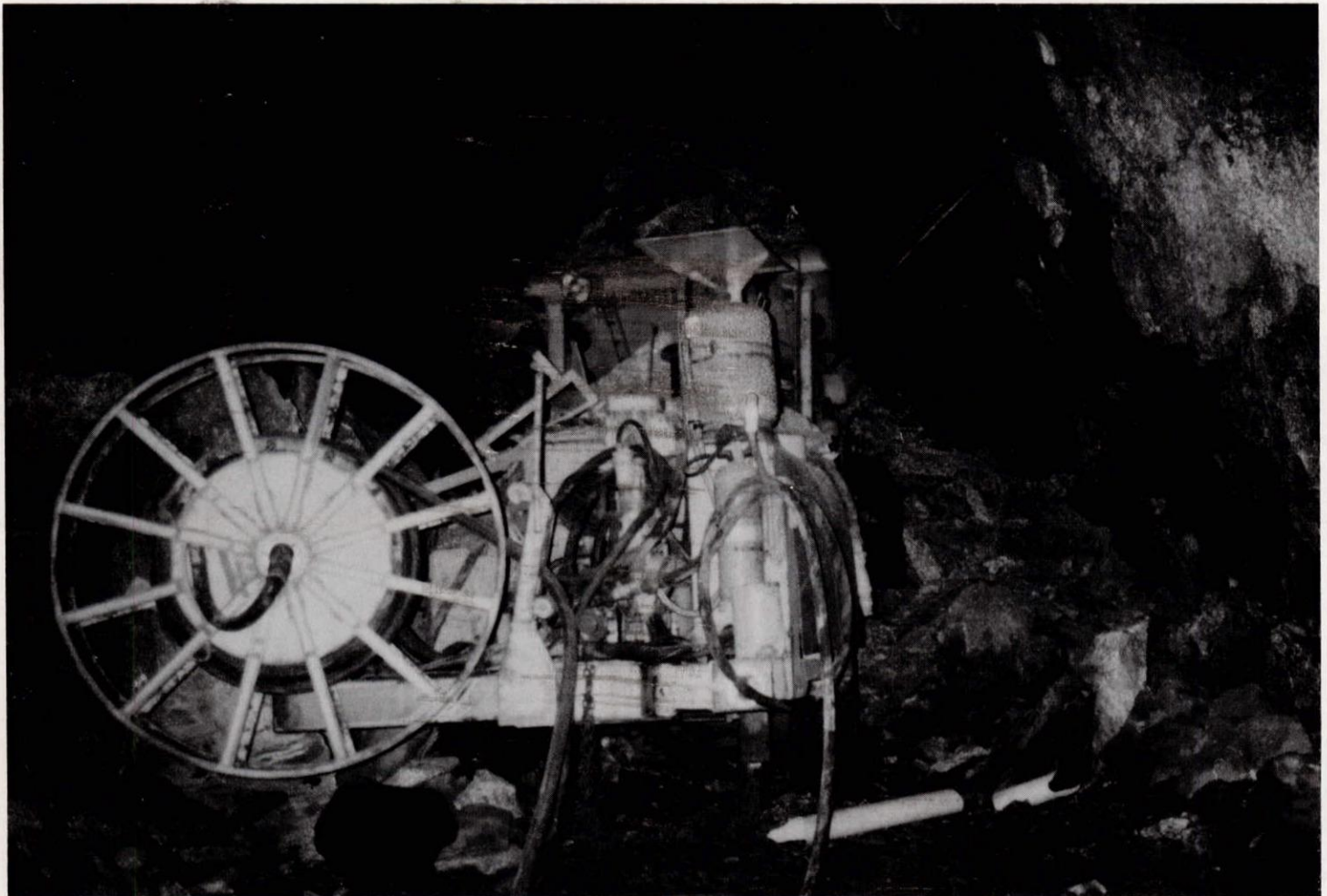




MINESAFE

ISSUED BY THE MINING ENGINEERING DIVISION OF THE DEPARTMENT OF MINERALS AND ENERGY

ROCKFALLS



"ROCKFALLS" - Choose the Right Bolt for the Job.



ROCKFALLS

FROM PAGE 1

A recent rock fall onto a drill rig highlights the need for quality control when installing ground support (rock reinforcement), particularly in underground mines. Two aspects are critical:

- Selection of the correct type of rock reinforcement and the design of the system.
- The quality of the installation, which includes provision for checking the standard of the installation.

In this instance, a long hole drill rig was drilling upholes in an ore drive of an underground mine. The drive back had been reinforced during development with split sets, and more recently, by cable bolts. The cable bolting had not extended along the full length of the drive. The drill rig was set up under an area of back that was reinforced only by split sets, just in front of where the cable bolts finished.

During drilling operations approximately 50 tonnes of rock fell, without apparent warning, on the front section of the drill rig. The operator escaped injury as he was protected by the canopy.

*Minesafe International Committee
Standing left to right, Dr B Galton-Fenzi, Jim Torlach, B Chesson, Dr N Ormonde, G Argus, Dr R Warner.
Seated left and right, P Baughan, G Koperski, M Price, P Gilroy.*

MINESAFE INTERNATIONAL 1993

Second International Conference on Occupational Health and Safety in the Minerals Industry.

21 - 26 March 1993

The five day program for Minesafe International confirms the status of the Western Australian Mining Industry as a world leader in the promotion and development of occupational health and safety.

The theme of the conference "From Principles to Practice" recognises that practitioners in the front line are the people who carry the responsibility for day to day safety in the workplace. Supervisors, Health and Safety Representatives and anyone who has an active role in safety management should be attending this conference.

Day one of the program concentrates on the practical approaches to health and safety management world wide, with speakers from Australia, USA, Canada, UK, South Africa, Poland, India and China communicating their ideas on getting it right.

Day two is devoted to occupational health issues on a range of topics from asbestos through to asthma in the workplace. The control of workplace

hazards is of paramount concern, and health practitioners across the state should ensure that day two at least, is on the agenda.

There will also be a two hour special interest workshop on mine rescue training and standards on day two.

Machinery and Man - often in conflict - but the conflict can be resolved, and day three deals with finding solutions.

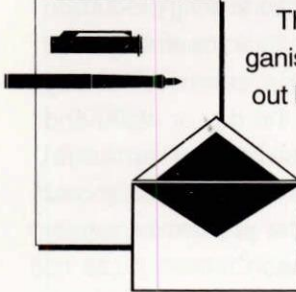
The Western Australian Mining Industry has a goal of zero incidence for serious injuries and fatalities in the workplace. Is this a realistic target and how can we work towards achieving it?; - day four will provide both guidelines and examples on how to go about achieving an injury free workplace, including a focus on lifestyle and health promotion - two factors that have a major influence on workplace safety.

Where do we go from here? The forum on day five provides an opportunity to debate the major issues raised at the conference and set new directions for the future.

MINESAFE INTERNATIONAL 93 is an important week for the Mining Industry. For further information call the Minesafe Secretariat on (09) 325 2955.



LETTERS TO EDITOR:



The logistics of organising and carrying out baseline hearing tests is particularly difficult for companies with mobile work forces

and personnel on shift rosters. A measure of these difficulties may be indicated by the latest figures issued by the Workers Compensation and Rehabilitation Commission.

To date they have issued 124,000 test forms to companies in all industries throughout the state, suggesting that this is likely to be the minimum number of tests required by legislation. So far they have received only about 56,000 completed test cards back, well below 50%.

Workplace Inspections began in September 1992.

The positive identification of a 'prescribed' workplace may not be easy for companies without qualified noise officers, with approved measuring instruments, on their staff. Hearing testing have also to be conducted in accordance with strict criteria relating to equipment and background noise levels.

Eric Fry
Australian Acoustical Services.

SEAT BELTS - THE DIFFERENCE BETWEEN LIFE AND DEATH

The reasons offered for not wearing seat belts whilst riding in vehicles on minesites are many and varied -

- the belt is greasy and dirty and will make my clothes dirty.
- I have to get out of the vehicle every five minutes so it's a nuisance.

- it makes my shoulder sore so I don't put it on.
- it is not a regulation.
- if I want to get out in a hurry then I don't wear it.
- it's uncomfortable to wear.

The reasons for wearing seat belts should be obvious -

- it could save your life.
- it could minimise your injuries.

The recent fatal accidents study (1980-1991) indicates that a total of nine fatalities were due to vehicles rolling over; seven of these occurred because the person was not wearing a seat belt.

In addition there have been numerous accidents involving vehicles where drivers or passengers did not wear seat belts and were seriously injured. There have also been many accidents where seat belts worn by drivers of passengers have prevented serious injury or even death.

The short answer is BELT UP.

P C Garland
DISTRICT INSPECTOR OF MINES.

It is estimated at least 7000 forklift trucks will need to be modified to comply with a new directive from the Department of OHS and Welfare.

The directive require the trucks to have seat belts and lateral restraints that prevent drivers from being trapped under their vehicles in tip-overs.

All forklift trucks in Western Australia must have seat belts and a driver restraint system installed by March 1993.

Stand-on type forklift, order-picking trucks or forklifts with fully enclosed cabs are excluded from this requirement.

Editor

Source: Australian Safety News August 1992 p20.

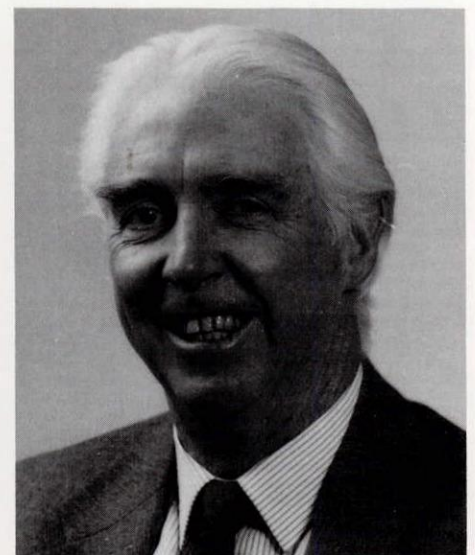
EDITORIAL

1992 has been a year of consolidation for many of the accident prevention strategies implemented by all sectors of the industry. The performance speaks for itself as there has been a further drop in the frequency rate of injuries from 27 per million hours worked in 1990/91 to 23 in 1991/92.

There is a need to focus on eliminating recurrent incidents, all of which are entirely preventable, and management, safety committees and health and safety representatives working together can do a great deal to identify and resolve the underlying causes of accidents on mines.

For its part, the Mining Engineering Division has expanded its education program to include site presentations to the general workforce which have proved to be an outstanding success, underlining the value of direct and open communication.

In 1993 co-operation between all industry sectors can only enhance efforts to further reduce injury at mines, and I look forward to encouraging the further initiatives that will be introduced in the coming year.



Dr D.R. Kelly
Director General

FIRE

DON'T TAKE THE RISK

A fire in an underground mine can endanger the life of every one in the mine, cause the loss of valuable mining equipment and bring production to an abrupt halt. In an operating mine a fire underground can occur at any time of the day or night, and because of the potential losses, a great deal of effort should be applied to fire prevention, detection and suppression.

There have been seven reported instances of fires underground within the last three months, six of them involving diesel equipment. Luckily none of the fires resulted in injury and all but one were extinguished before machinery was extensively damaged.

Installation and use of fire fighting equipment and fire suppression systems on underground vehicles will help to suppress fires quickly, and the Inspectorate requires all underground mines to have:

- 1) A fire extinguisher complying with the following table which must be fitted to the vehicle and positioned within easy reach of the driver:

Engine Rating	Extinguisher Rating	Approx wt (min)
<100 kW	30B(E)	2-3 kg
101 kW to 200 kW	60B(E)	4.5-8 kg
> 200 kW	80B(E)	6-11 kg

- 2) All underground diesel vehicles used for loading or hauling ore or waste and any vehicle fitted with a turbo charged engine must be equipped with an approved fixed engine fire suppression system using AFFF foam.
- 3) Where a fixed system is fitted a portable extinguisher is still required but may be of a lesser rating. Portable fire extinguishers may be dry powder, carbon dioxide or BCF type.

←Burnt out Toro 500D

- 1) Drivers Cab
- 2) Initial fire area
- 3) Transmission compartment
- 4) Hydraulics compartment



- 4) More than one fire extinguisher may be fitted to a vehicle, however the combined rating must be equal to or greater than that required for particular vehicle eg. 2 extinguishers rated at 30B(E) are equivalent to one of 60B(E).

It is important that fire fighting equipment and suppression systems are maintained correctly so that they function when needed. Persons operating diesel vehicles must be trained and re-trained at regular intervals in the procedure to be followed in shutting down the engine and activating the suppression system. There have been cases where fires could not be extinguished because the suppression system either failed (due to lack of maintenance), was not activated, or the engine had not been shut down correctly.

THE INVERTED LOTTERY

When you enter a lottery you never really expect to win. The money, the car or the Home Unit on the Gold Coast would be very nice and someone has to win, but you know it's not likely to be you this time. Some people think it's crazy to spend money week after week on lotteries or poker machines but if you're one of those who do, you know you've got to be in it to win it.

Safety precautions are like tickets in an inverted lottery. If you're hitting a steel part with a hammer you probably know that people have got chips of steel in the eye, but you also know that it's very unlikely to happen to you this time. And you're right too, it's about as un-

likely as winning the lottery. Just remember someone's going to win and you've got to be in it to win it. You enter this lottery by leaving your safety specs in your toolbox. It's as easy really, as scratching a ticket. The question is, why do it?

WORKFORCE SAFETY SURVEYS

Minesafe has been sent a copy of a Workforce Safety Survey used by Mount Isa Mines at Isa/Hilton which should be of interest to our readers.

The Survey is short (12 questions) and asks for feedback on the effect and value of safety initiatives during the year as well as comment on personal and management commitment to safety at work.

For further information please contact Mr Richard Grills.

Telephone (077) 442 011.



End of shift for site clerk Freda Frazer and Health and Safety Representative Lisa Browning (Peak Hill)

GOOD WORK PRACTICES MAKE SAFE WORKPLACES.



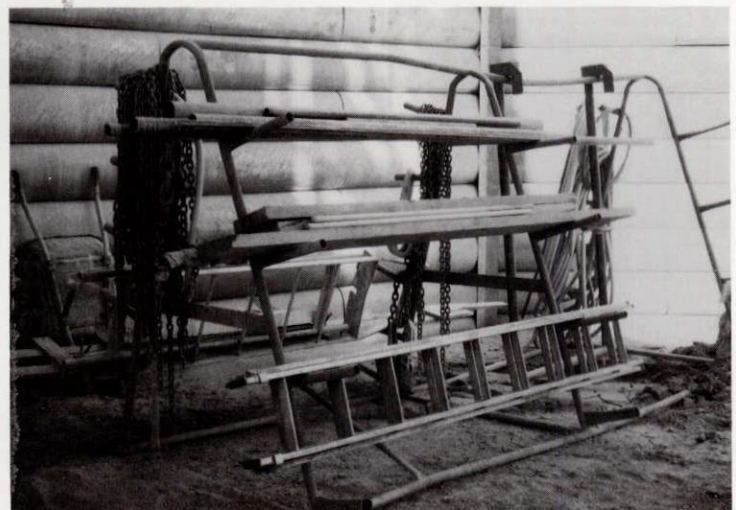
↑ Horseshoe Lights
F.O.P.S canopy, seat belt and a wide based all terrain forklift for stability on uneven ground.

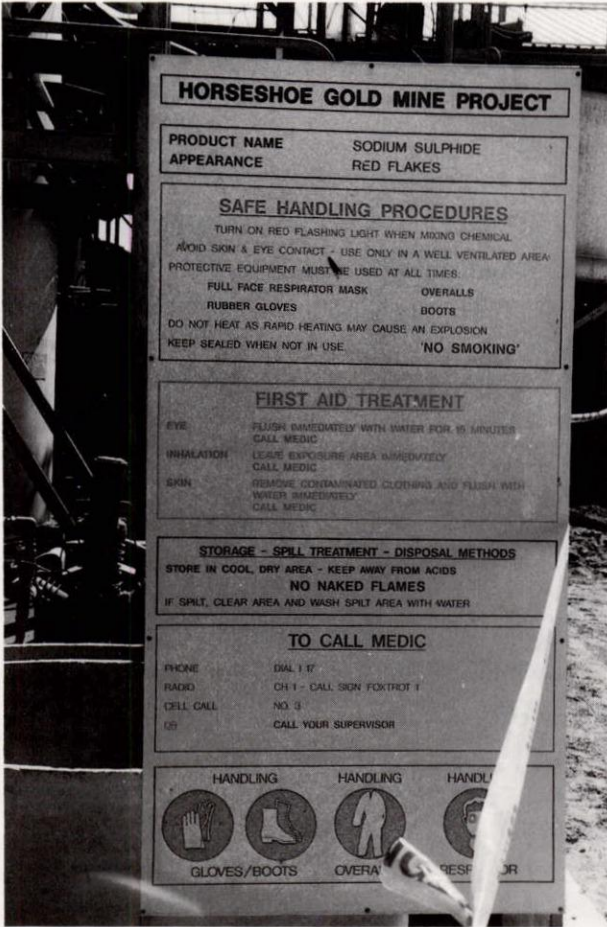


Peak Hill
↑ Access ladder for tradesman makes the job safer.
← Pulley system for leach tank covers controls lifting and saves backs.



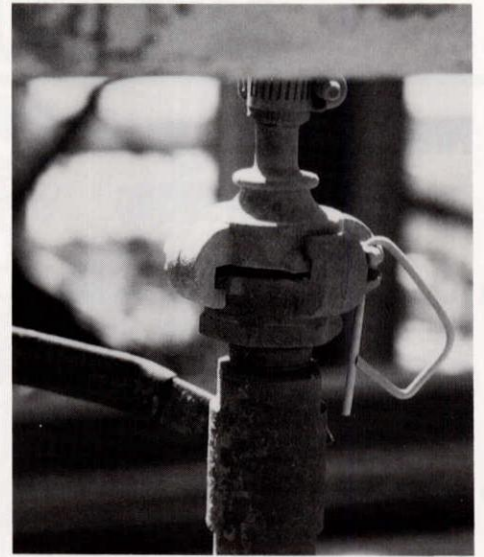
Dominion Mining (Meekatharra)
↑ Storing "J" Hooks on the crusher platform.
→ Safe storage eliminates trips and slips.





← Good signage - Information at a glance.

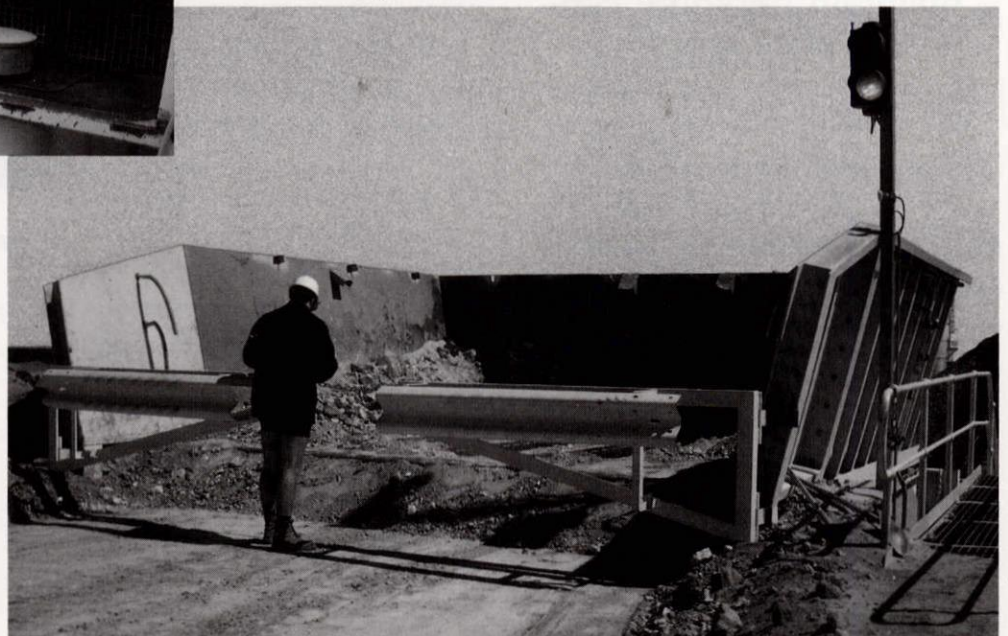
→ St Barbara Mines Safety Pin used to hold hose coupling together. The hose must be correctly fitted to the ferrel.



Plutonic Gold Mine
 ↑ Manual handling has been eliminated in the gold pour process (gold room not in use at time of photograph).
 ↓ Primary Grizzly feed chute guarded by strong boom gates and controlled by lights.



↑ St Barbara Mines Manual lifting eliminated. Mechanical Hoist does the work (demonstration).



SAVE YOUR SKIN!

PRECAUTIONS FOR MANUAL CHEMICAL HANDLING

- **Obtain a copy of the Material Safety Data Sheet (MSDS) before using a chemical.**

- **Read the label before opening a container:**

To identify the material.

To obtain valuable safety information ie. what sort of protective equipment is needed and what precautions are necessary.

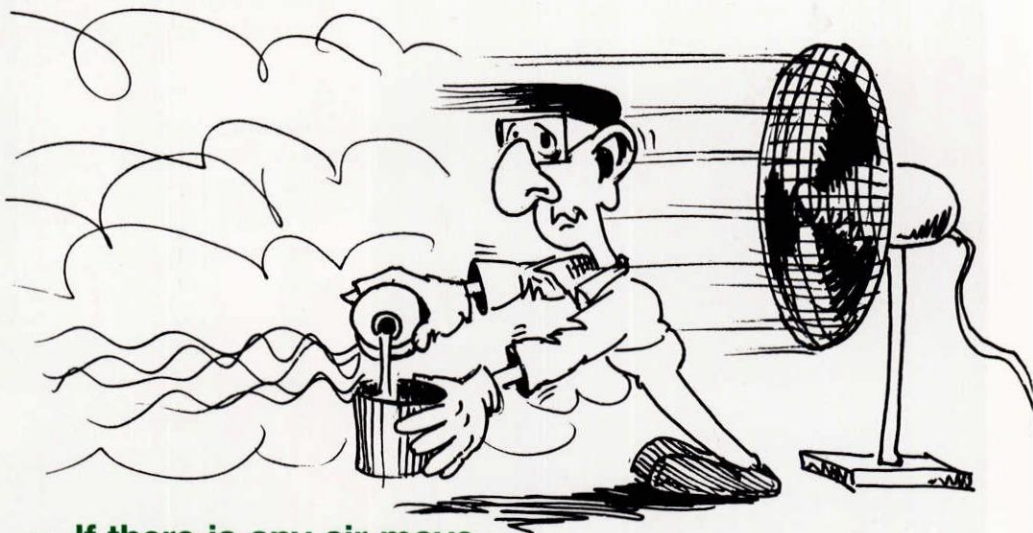


- **AS 1715/16 - Wear and maintain personal protection as directed:**

Ensure that protective equipment is the correct type, (dust filters do not protect against solvents), and will provide the right level of protection.

- Always use gloves and a face shield when handling undiluted chemicals - even if the label doesn't state this: Remember - some chemicals do not immediately cause problems or indicate damage (e.g. hydrofluoric acid).

Despite good work practice, accidents can always occur, ie. spills, spattering, boiling container, breakage, leaks.



- **If there is any air movement, make sure you stand upwind:**

Good ventilation is one of the prime requirements when using chemicals. To ensure fumes, vapours etc. are drawn away, if possible always use fume cupboards, booths etc. You can provide air movement with fans in most situations.

- **Make sure you have complete pouring control:**

Do not pour chemicals in confined spaces as this increases the possible risk from vapours, and makes spills more difficult to clean up.

Do not try to handle very large containers as they may be difficult to control.

It is important that you have a good grip on the container.

You may need gloves; if so ensure they are not slippery when wet.

Do not balance containers on the edge of benches.

- **Don't create foam or lather when pouring:**

Foam or lather increases splashes. Minimise agitation as this can generate fumes, vapours, sprays and mists.

If material is flammable it presents an increased fire risk.

- **Have soap and water at the ready:**

It is vital to remove chemicals as soon as possible.

Have an eyewash bottle in more remote locations.

Do not use abrasive materials.

Do not wash hands in solvents as these can cause skin irritation and dermatitis.

- **Wash before smoking, eating, drinking and going to the toilet:**

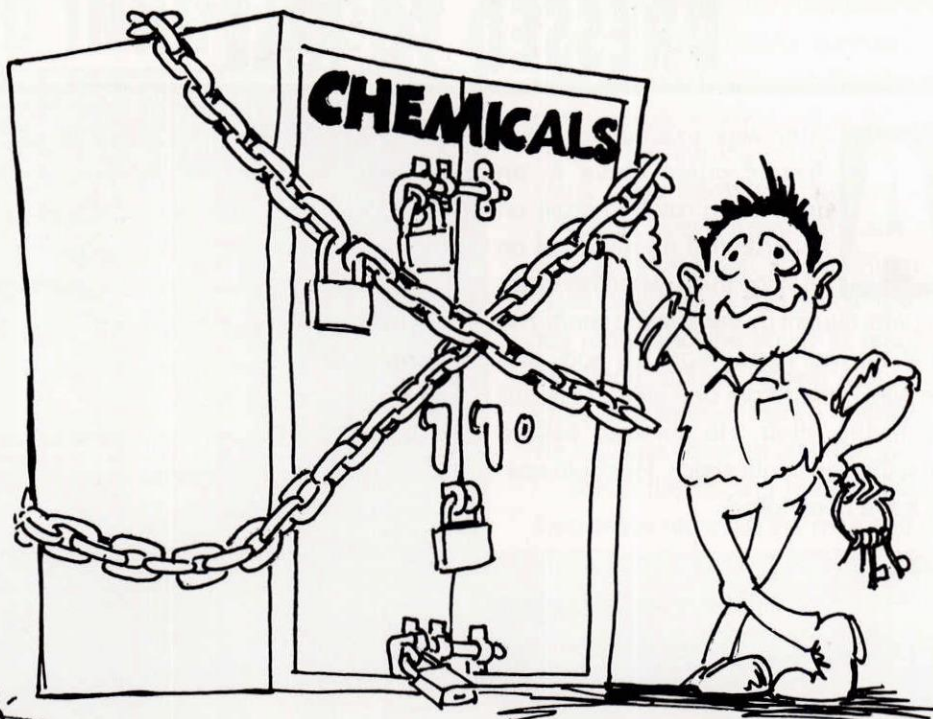
Personal hygiene is very important in minimising exposure to chemicals, particularly through ingestion.

■ Wash before rubbing your eyes:

This could prevent transferring of material from your hands to your eyes.

Where possible rinse eyes first to remove chemicals and reduce risk of further eye damage.

If you wear safety glasses, goggles or a face shield, there is less likelihood of material getting in your eyes.



■ Change soiled clothing immediately:

Many chemicals can be absorbed through the skin.

Vapours from solvents and other chemicals can be inhaled as they evaporate.

■ If you use disposable clothing, mark waste bags properly:

If you are provided with disposable clothing then wear it, as it saves your own clothes from being contaminated.

Disposable clothing must be assumed to be contaminated. Ensure it is well labelled for disposal so it is not used again.

■ Store chemicals behind lock and key:

Security reduces unauthorised access.

You must assume other people who are not trained may have access to the chemicals, and who may risk exposure to the chemicals because they are not aware of correct procedures.

■ Never enter a confined space (car, operator booth etc) wearing soiled clothing:

The contaminant can be transferred to seats.

Vapours from the clothing can accumulate in confined spaces.

Note: There should always be a set of safety procedures in place before entering confined spaces such as tanks, drains, manholes.

■ Don't blow or suck clean nozzles and filters. Replace with a spare one:

A new nozzle or filter reduces your exposure to chemicals.

The equipment will also function better with a new nozzle or filter.



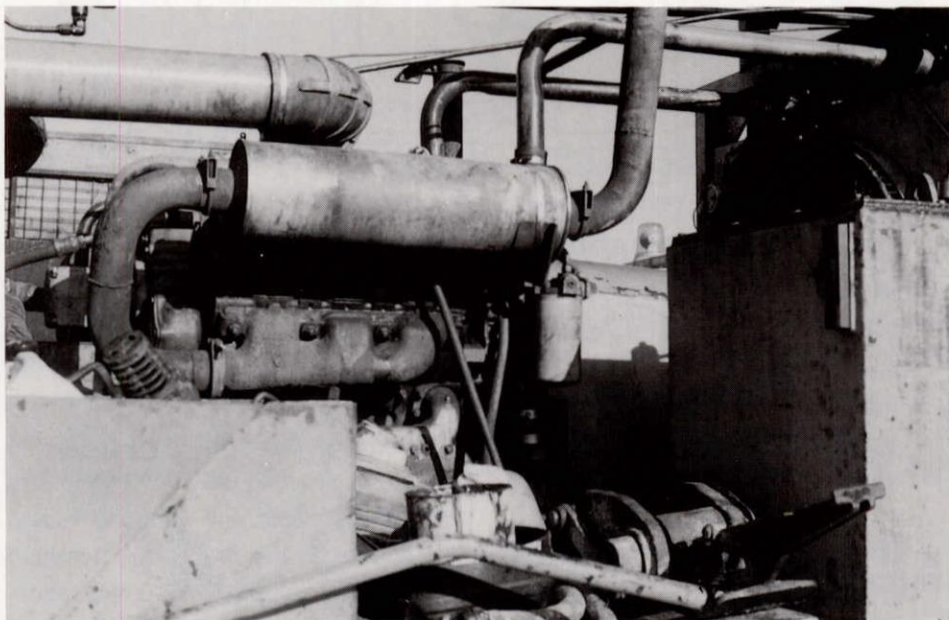
DRESSED TO KILL

A fitter was examining a hydraulic pump close to an unguarded rotating shaft on an RAB drill rig mounted on an Acco truck, when his clothing was caught by the rotating shaft. The clothing was ripped from his body and he was hurled from one side of the drill rig to the other. He suffered severe bruising and acute shock. He could easily have been killed.

Earlier this year, (April and May) in separate incidents, drilling personnel were severely injured when their clothing was caught by moving machinery.

In May an operator was dragged into the tail pulley of a conveyor while trying to re-align the belt which had tracked off because of spillage.

It could happen to you - please believe that, and heed the consistent warnings about loose or torn clothing.



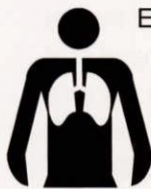
RAB Drill rig, unguarded rotating shafts can catch clothing.

In February 1991 the State Mining Engineer issued Significant Incident Report No17 entitled "Caught by Rock Drill" that described how a jumbo drill operator was severely bruised and burnt in the pelvis area after his overalls had been caught by a rotating drill steel. The cause was described as an "Inappropriate work practice when working adjacent to rotating machinery". The S.I.R. recommended that work procedures should be clarified so that operators understand the hazards when working near rotating machinery.

Loose fitting clothing greatly increases the risk of injury or death.

Within three months of Significant Incident Report No17 being issued, a jumbo drill operator died in similar circumstances.

A BREATH OF FRESH AIR



Employees, particularly diamond drillers, have been working in unventilated areas in underground mines.

Typically they have either omitted to start the fan or neglected to provide themselves with ventilation by extending ducting into their work area.

This practice has already led to a suspected fuming which could easily

have been avoided by the use of basic ventilating rules.

Without the appropriate detection equipment, it is impossible to know what gasses are present, or if there is a deficiency of oxygen due to oxidation of the surrounding strata.

With the onus on each person to satisfy themselves that fumes from blasting have been removed, it is important to observe some basic rules:

- Do not work in a blind end where no ventilation is provided until such time as a fan and/or ducting has been provided to direct fresh air into the area.
- When working in a blind end always ensure that the fan is running before entering the area.
- Where there is evidence of smoke or blast fumes in a heading, leave the area and remain in fresh air until such time that the smoke and fumes have been effectively dispersed. Report the situation to the responsible supervisor.
- Always ensure that the ventilation ducting is sufficiently close to the face of the heading so that the movement of air can be felt sweeping the face.
- Always ensure that headings are thoroughly watered down after blasting as this will reduce the nitrous fumes present which are soluble in water and dust.
- Do not enter any old areas or headings where there is no air movement, the air is stagnant or it is suspected that the passage of the ventilation has been blocked. Report the situation to the responsible supervisor.

Following a few basic rules can save your LIFE.

Minesafe regularly receives copies of "In Brief", the Worsley Alumina newsletter. We are happy to learn from "In Brief" that Boddington Mine achieved half a million hours without a lost time injury on 23rd July this year.

Congratulations.

UNDERGROUND INNOVATORS



Jack (Jacko) Kennedy and Ray Curtis by the pass cover at Long Shaft Shaft.

The workforce and management at Long Shaft have jointly developed a new pass cover system at the Kambalda Nickel Operation.

Until recently grizzly bars on the ore and waste passes on the rail haulage levels (essential to control over-size) were the only protection against the like-

lihood of anyone falling down the pass in what is a well travelled area of the mine.

Mine foreman Jacko Kennedy and specialist timberman Ray Curtis came up with a final design and constructed the covers with the help of Dave Barnden.

The system is simple, easy to oper-

ate and requires little maintenance.

As the loaded granby approaches the pass, the loco driver switches the pneumatic valve, located some 80 metres before the tipping ramp. The tipping ramp goes down and simultaneously the cover over the pass lifts, and allows tipping to proceed. The 80 metre lead distance provides sufficient time for both the ramp and the cover to reach their positions, before tipping can start. In case of a system failure, there is time for the loco driver to stop the train.

When the tipping is completed the loco driver reverses the rake and on his way back from the pass area he activates the pneumatic valve, which causes the ramp to be lifted and the cover to be brought down to its normal position covering the pass.

In areas where empty passes may affect the ventilation system, the mesh is covered with a conveyor belt, to prevent air leaks. A spray system has been installed underneath to suppress dust.

The ramp / pass cover area is adequately lit and signposted to prevent access when tipping is in progress.

For further information call Nick Cernotta at Long Shaft on (090) 276211.

HAD ANY GOOD IDEAS LATELY?

How can you share your ideas about effective safety management?

Following the example of Murchison miners would be a good place to start as this active group recently held a workshop on "The Key Elements of Mine Safety Management".

The workshop held on 5 November and organised by the Murchison Regional Council of the Chamber of Mines and Energy attracted a diverse group of people who used the workshop to exchange ideas and share experiences, all of which will assist programs at a particular mine.

Six papers were presented during the day on topics covering regulation, con-

tractors' view of safety and productivity, reactive and proactive preventative measures and performance appraisal.

Simon Thompson from Plutonic Goldmine (and Chairman of the Regional Council) organised the workshop. Afterwards, Simon said that a goal of the workshop was to help operational personnel to fine tune their own workplace safety programs, and that the discussion during and after the program indicated that the workshop had succeeded in helping everyone present to enhance their knowledge of mine safety management strategies.

The workshop was followed by a social evening sponsored by Leightons,

Crocodile Catering and St Barbara Mines.

Speakers:

Jim Griffin - Department of Minerals and Energy, "A Regulator's Expectation of Safety Management".

Richard Keys - Consultant, Civils Australia, "Safety and Productivity - The Contractor's View".

Jim McCrystal - Mt Newman Mining, "Focussing on Occupational Health and Safety".

Tim Gooch - Gidgee Gold Mine, "Safety Awards - Do They Work?".

Ralph Hayes - Consultant, Boral Contracting, "Reactive vs Proactive Preventative Measures".

Noel Stone - Principal - MDM Nationwide Safety OH&S Management "Performance Appraisal."

HEAVY EQUIPMENT MAINTENANCE

A HIGH HAZARD POTENTIAL

PRELIMINARY.

On the basis of hard learned experience the majority of persons are generally very conscious of the risks attached to the hazards inherent in the operation of heavy mobile equipment, particularly trucks and loaders, and of the need for extreme care when light vehicles are used in conjunction with them. The hazards of tipping over banks and contacting overhead power lines have been given greater emphasis over the past two or three years, and wider awareness has been generated.

An issue of major concern, which is much less widely recognised, is the hazard to personnel involved in heavy equipment maintenance, even where the units are parked up or in a workshop.

In the past year there have been three fatalities in which persons have been run over by large trucks, two of which were under maintenance. There have also been reports of "near misses" or relatively minor injuries, under circumstances which could too easily have had much more drastic consequences.

No one should need to be reminded of the very limited peripheral and lateral vision available to the driver of large trucks and the extremely restricted rear vision. This presents a higher level of hazard underground with large vehicles in confined spaces.

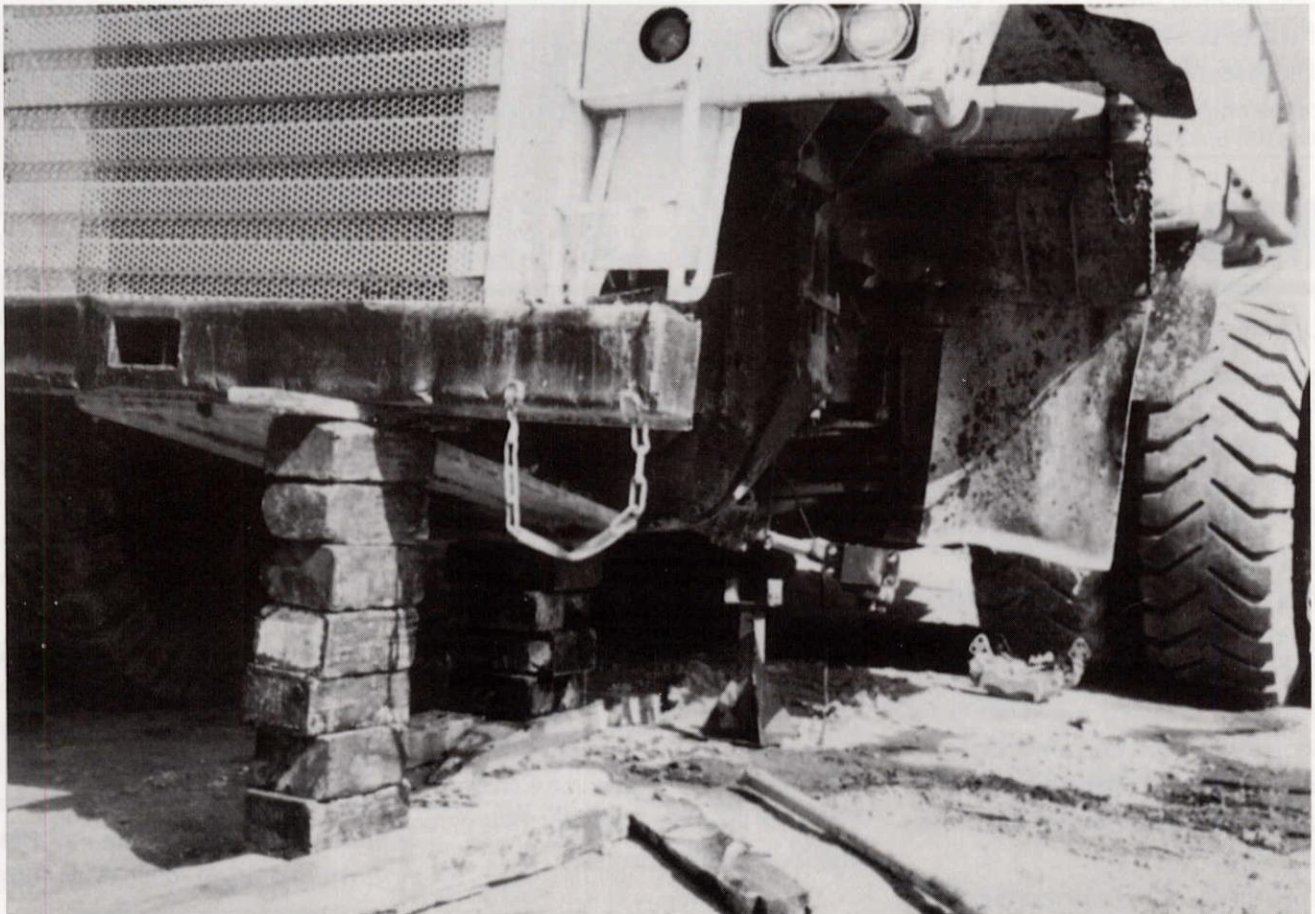
From the perspective of the mining Inspectorate, there are some critical points to be made.

WHERE THE JOB IS DONE.

As far as possible major maintenance work on heavy equipment should be undertaken in a workshop, or on a level concreted area set aside for the purpose. Attempting to do such work on rough or uneven ground can lead to instability in supporting the equipment.

It is quite appropriate to effect minor repairs on a vehicle which is parked up in any suitable designated area, where it is not at risk of collision from other vehicles. Lighting should be available at night.

In doing all such work it is of paramount importance to have total isolation procedures to ensure the safety of personnel involved. Standard procedures, fully understood by all and practised without exception, are essential.



Where it is unavoidable to do some work in an area not designated for the purpose, full precautions must be taken to avoid any possibility of collision by other vehicles, and secure chocking provided. Reliance should **not** be placed on park brakes or vehicles held in gear on slope.

HOW THE JOB IS DONE.

Whether in the workshop or at a designated open area, it is essential to provide and use support stands designed and constructed to be stable and to take the maximum loads required with an adequate factor of safety.

Improvisation with blocks and chunks of timber and use of inadequate jacks, hoists, or overhead cranes, are recipes for disaster.

Great care must be exercised in the use of mobile cranes on such equipment maintenance.

COMMON DEFECTS OR PROBLEMS.

- Hazards in getting on and off heavy equipment.
- Lack of proper design or provision for places to work on various components on the equipment. Again improvisation leads to accidents.
- Fire risks from combustibles.
- Slipping risk from oil leaks and spillage.
- Failure to provide adequate chocking for wheels to protect against movement when the unit is not powered up.
- Failure to isolate and disable unit movement effectively, to prevent inadvertent operation.
- Failure to secure raised trays, dozer blade/arm assemblies etc.

COMMUNICATION AND PROCEDURES.

It is of vital importance to adhere, as far as practicable, to standard work procedures and systems.

Equally important is clear communication with all parties involved. A single mistake can be fatal.

Particular care must be taken to isolate or disable equipment in the workshop until there has been a clearance that the unit can safely be activated and moved.

SUMMARY.

The aspects listed are by no means a complete coverage of the hazards involved, but provide a representative sample.

Each operation must analyse the hazards and have in place systems and training programs to manage the risks effectively.



WIM Carmen Vetrone with Alcoa Health and Safety Representatives.

WHAT'S ON

Australian Conference and Workshop on Geotechnical Instrumentation and Monitoring in Open Pit and Underground Mining.

A conference and workshop presented by The Western Australian School of Mines, June 21-22 1993.

Inquires to:

Dr Tad Szwedzicki
Western Australian School of Mines
PO Box 597, KALGOORLIE WA 6430
Telephone: (090) 805 172
Facsimile: (090) 805 151

or:

Dr C.F. Swindells
Department of Minerals and Energy
100 Plain Street
EAST PERTH WA 6004
Telephone: (09) 222 3597
Facsimile (09) 222 3633

SURFACE VENTILATION OFFICER'S COURSE.

Venue: Department of Minerals & Energy 100 Plain Street EAST PERTH WA 6004

Date: 18-19 February 1993

Cost: \$200.00

Interested parties contact James Lawrence on (09) 222 3095

COMING UP:

ALCOHOL AND OTHER DRUGS IN THE WORKPLACE

1 Day Seminar - Meekatharra Thursday 18 February.

Sponsored by the Murchison Regional Council.

INFORMATION:

Simon Thompson :

Plutonic Gold Mine

Tel: 370 8200

Peter Fairclough :

Chamber of Mines and Energy

Tel: (09) 325 2955



The Minesafe Committee wishes everyone a happy and safe Christmas - see you in '93.

Left to right - Doug Blight, Anna DeFilippi, Jan Hartley, Catherine Stedman, Martin Ralph, Simon Wood, Kim Williams

STAFF CHANGES

James Lawrence has returned to the Mining Engineering Division in the position of Administrative Assistant.

Tania Narducci has returned to her position as Finance Officer.

Melanie Calder is the new Acting Secretary to the Board of Examiners.

District Inspector Peter Garland will be acting as Regional Mining Engineer Karratha Inspectorate from mid-January, 1993. Senior Inspector of Mines, Martin Knee will be seconded to Perth in January 1993.

WA Certificates of Competency Examinations:

- First Class Mine Managers
- Underground Supervisors
- Quarry Managers
- Restricted Quarry Managers

The Examination date for the above Certificates has not been finalised, but it will be sometime in April 1993. Enquires should be made to the new Acting Secretary to the Board of Examiners, Melanie Calder on (09) 222 3269.



Melanie Calder - Acting Secretary, Board of Examiners.

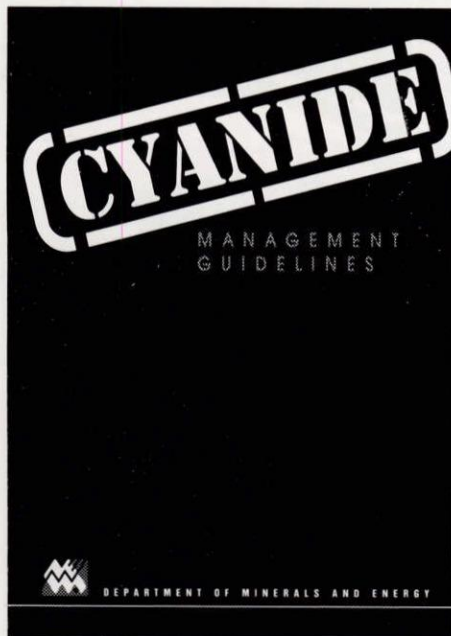
MINESAFE

Is published by the:

Mining Engineering Division
Department of Minerals and Energy
100 Plain Street
EAST PERTH W.A. 6004
Telephone: 22 3310 / 222 3438

NEW PUBLICATIONS

- 1) Cyanide Handling Manual



- 2) Emergency Preparedness Guidelines
- 3) Torlach, J. "The Future Workplace: Implications for Occupational Health and Safety", 1992.
- 4) Interim Guidelines for Noise Control.
- 5) Hewson, G. "Tripartism - The Way Forward". Paper presented at the Australian Radiation Protection Society

THANK YOU.

We would like to take the opportunity to publicly thank the Collie Mine Workers Union and Boral Contracting for their sponsorship of the first of a series of mining specific posters being produced by the Department. We will be producing more as sponsorship becomes available.

If you would like to help, please contact Catherine Stedman on (09) 222 3538 or 222 3310.

17th Annual conference, Darwin, 21-25 September 1992.

6) Hewson, G., Kuasnick, J. and Johnston A. "Regulation of Radiation Protection in Mining in Australia". Paper Presented at the international workshop on the health effects of inhaled radionuclides: Implications for radiation protection in mining, Four Seasons Hotel, Jabiru, N.T., 25 September 1992.

7) Hewson, G. and Ralph, M. "Investigation into Occupation Radiation Exposures in Underground Mines in Western Australia". Paper presented at the Australian Radiation Protection Society 17th Annual Conference, Darwin, 21-25 September 1992.

8) Safety Pamphlets Series 4 (Available January 1993)

Nugget Series:

Nugget Posters:

- Overhead Powerlines
- Dumping Over Edges
- Tyre Fires and Explosions
- Conveyor SAFETY
- Confined Spaces
- Loose Clothing - Available January
- Compressed Air
- Barring Down - Available January
- Laboratory Practice
- Underground Ventilation - Available January
- 9) Fisher, T.N. "Occupational Health and Safety in the WA Drilling Industry", September 1992.

10) Griffin, R.J., "A Regulator's Expectation of Safety Management", November 1992.

11) Safety Bulletin No 6 - Formatting Hydrogen Gas from Silicon Metal.

12) Conceptual Plan of the Golden Mile 1992.

TEN LITTLE WORKERS

Ten little workers, Feeling fit and fine,
One smoked in the solvent room.....
Then there were nine.

Nine little workers, Thought they'd be late,
One cut through the railroads yard.....
Then there were eight.

Eight little workers, Looking up to heaven,
One fell off a loading ramp.....
Then there were seven.

Seven little workers, Putting in hard licks,
One mixed booze with gas.....
Then there were Six.

Six little workers, Glad to be alive,
One forgot his goggles.....
Then there were five.

Five little workers, Standing near the door,
One thought a wire was "dead".....
Then there were four.

Four little workers, One scratched his knee,
Didn't go for First Aid.....
Then there were three.

Three little workers, With nothing to do,
One indulged in horse-play.....
Then there was two.

Two little workers, Took stairways on the run,
One missed his footing.....
Then there was one.

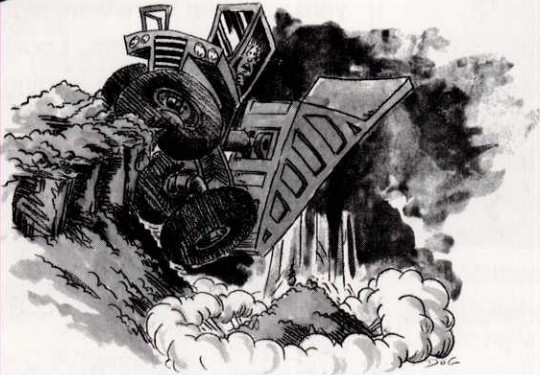
One little worker, Thought of the other nine,
Began to practice safety.....
Now he's doing fine.

Submitted by a reader. Caption for Picture Spread:




NUGGET KNOWHOW

Only a Chump Ignores a
SLUMP DUMP
In the



CHECK THE TIPPING AREA OFTEN DURING THE SHIFT!

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KILL!




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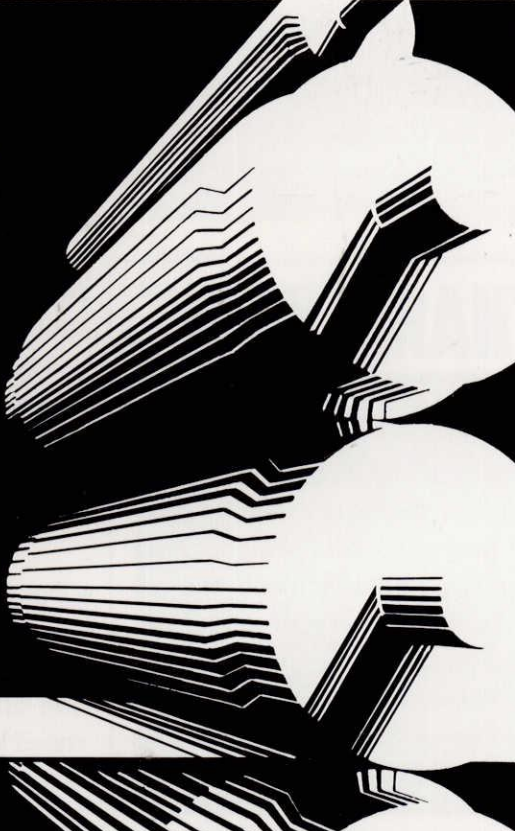
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