

MINESAFE.

Vol. 2 No. 2



THIS COULD BE YOU!!!

Unfortunately there are too many accidents of this nature. In this incident no one was injured.

Many injuries, and at least one fatality, have occurred because of large haul vehicles running over stationary light vehicles in open pits and treatment plants in Western Australia. The prime reasons for these accidents occurring are:

1. Persons driving light vehicles are not aware of ,or are disregarding, the pit rules about the parking of light vehicles near large haulage vehicles.

 Light vehicles driving up to the front, rear and blind side of a truck being used as a ladder to carry out repairs without ensuring it is safe to do so by isolating and tagging the power source.

Never park on the blind side of heavy earthmoving vehicles, unless you are far enough away for the driver to see you. Whenever possible park at a safe distance (20 metres minimum) on the "clear" side where you will be visible.

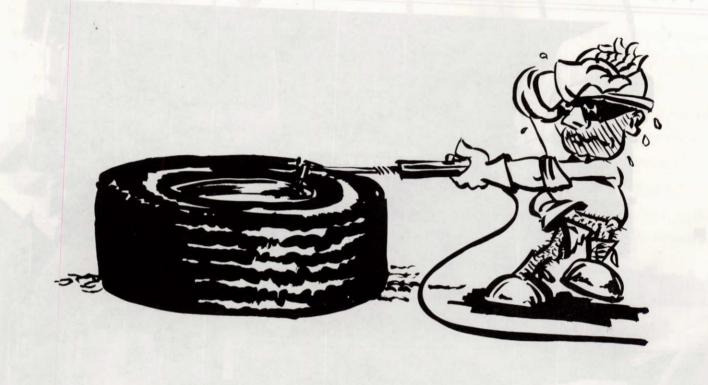
Never park a light vehicle immediately at the front, rear or blind side of a haulage vehicle to carry out repairs, before first isolating and tagging out the power source.

Do not remove the isolating tag prior to relocating the light vehicle to a safe place.

THINK BEFORE YOU PARK!

Already this year there have been 8 fatal accidents on mine sites in Western Australia. Don't you become statistic No.9. Think safety and heed the safety and procedural training you have received. Unsafe acts and procedural shortcuts inevitably end up with somebody being injured.

June 1991 1



NUGGET KNOW-HOW!!

INFLATING A TYRE

Do it right! Use a remote control extension airline with a clip-on chuck.

Persons dilving light vehicles

EDITORIAL

The industry has made encouraging progress in the management of accident prevention during the last eighteen months, good enough in fact for this Department to issue a media release in March 1991.

The release stated that the 1990 figures showed a drop of 13% in the Metalliferous mines frequency rate and 11% for the coal industry and a drop of 14% in the injury index for metalliferous mines and 33% in the coal industry - an excellent result considering that there had been a 7% increase in the State's mining workforce during the same period. Underground metalliferous mines reduced the frequency rate for lost time injuries by 27% and the injury index by 35%.

That's the good news.

The bad news is that easily preventable accidents continue to occur despite industry wide publicity to alert all sections to the dangers. Significant Incident Reports, Safety Bulletins, MINESAFE, interstate bulletins, safety publications and poster presentations are frequently used to carry the messages - messages that in too many cases appear to be falling on deaf ears.

This issue of MINESAFE carries three stories that have either featured before, or have been the subject of a safety bulletin or significant incident report. In two instances, fatalities occurred.

Someone has died because of misuse of a portable grinder; some-one has died because of conveyor belt work practices and someone could die if the raised trays of haultrucks continue to come in contact with electrical overhead power lines. Many mines have excellent loss control programs with a dedicated safety conscious and reasonably stable workforce. It is however, a characteristic of this industry that there is a constant movement of personnel either leaving or entering the workforce which means an initiative that was effective yesterday won't necessarily be so tomorrow. There is no room for smugness, and when alerts are issued, an immediate audit of related practices in your workplace should be carried out.

LETTER TO EDITOR -MINESAFE

MINE FIRES

This subject was addressed in general terms in Minesafe Vol. 1 No. 5, November 1990.

This letter attempts to highlight what every person working underground should know (or do in the event of a fire).

- Learn the travelling ways to surface
- Know the location of escape routes, fresh air bases and refuge bays in the working area.
- . Do not enter smoke
- Notify the mine office of any fire or smoke source by telephone
 - Answer all questions asked and do not hang up until told to do so.

Do not enter smoke

Notify your supervisor if possible. Notify other people in the area and proceed to your cribroom or nearest fresh air base.

If stopped by smoke, go to the nearest fresh air base, fire refuge bay or escape route to the level above or below. Notify mine control of your whereabouts.

Do not enter smoke

If there is a fire on a diesel unit

- stop the engine
- if the unit is fitted with a battery, switch off the master switch to isolate the battery
- use the fire extinguisher located on the unit to put the fire out.
- All fires produce toxic gases which are dangerous to human life unless proper precautions are taken to deal with them.
- Do not enter smoke (Have you got the message?).
 - Quick action must be taken in every case of fire to lessen and control the harmful effects produced. Put out the fire as soon as possible.

The list is not complete.

Yours faithfully,
PC Garland
DISTRICT MINING ENGINEER



ELECTRICAL SAFETY IN MINES

In a State the size of Western Australia it is surprising to learn that less than .05% of the landmass is occupied by operating mines. The perspective changes if you are an inspector committed to visiting each of the 210 mines scattered across the 2.4 million square kilometres of the State.

Special Inspectors of Mines (Electrical) have to do just that, and in the 1990 financial year they carried out a record 935 inspections - a level of activity that was 13.5% higher than the previous year.

Department of Mines Electrical Engineer, Denis Brown, (also a Special In-

spector of Mines-Electrical) emphasises the importance of maintaining a high level of industry contact. Although the logistics are daunting, the work gets done. The close working relationship between the Mining Engineering Division and the State Electricity Commission Inspectors (who carry out mine inspections for the Division) is a key factor.

Denis, because of his extensive mining industry experience, is in a position to provide technical advice and assistance to the Department and Industry. He also performs a liaison and overview function for the SECWA Inspection role on mines - a role he

says that is not always well understood.

Denis explains: The Mines Regulation Act provides for the appointment of Special Inspectors of Mines with specific expertise and skills, and in WA, electrical inspections are carried out by qualified SECWA inspectors.

This arrangment has worked well for many years and enables the MED Inspectorate to draw on the Statewide resources of the SECWA Inspectorate to provide this specialist function.

The service is provided to the DOM at

a substantial cost, but the arrangement is more cost effective than the alternative, which would be to duplicate an electrical inspection function within the Mining Engineering Division.

The Electrical Inspectors report in to the Regional Mining Engineers (Senior Inspectors) on all matters concerning electrical inspections of mines, and close liaison is maintained.

All of the electrical inspectors are concerned about the increased level of accidents or incidents associated with electrical equipment, as well as the lack of understanding about some aspects of electrical safety. Denis Brown gives some examples:

OVERHEAD POWER LINES

Contact with overhead power lines can be lethal, and there continue to be accidents involving mobile equipment such as haultrucks, mobile cranes, drilling rigs, excavators and the like reported to the Inspectorate. In addition to the risk of electric shock from these accidents, there is a very real danger that tyre explosions, which can occur some time after the event, can cause serious injury and death.

It is an unacceptable but not uncommon practice for haultruck drivers to travel considerable distances with a raised tray, apparently unaware that they are demolishing overhead lines at road crossings as they go. Vehicles with raised trays have also torn down overhead gantry conveyors and one even crashed into a decline portal. The common factor in these examples is that they are entirely preventable, and responsible persons on every minesite can and should act now to ensure effective measures are taken to stop this type of incident.

Consideration should be given to:

- Minimising the number of crossings by powerlines.
- Avoiding installation of powerlines in mobile equipment operating areas.
- Installation of cables underground or trailing cable systems to replace overhead lines
- Installation of a conspicuous device to indicate overhead line conductors.
- Erection of goal posts/warning signs on approach roads.
- Installation of tray raised interlocks on haul trucks.
- Required clearances detailed in AS3007.5 and Code of Practice for Overhead Line Construction c(b)1.
- Establish a 'Clearway' 10 metres on either side of any power lines.
- Procedures in the event of an accident.
- Accident investigations, reporting and discipline.
- Procedures to allow work in close proximity to power lines.

Another source of concern is accidents involving electrical connections between fixed wiring and equipment.

Australian Standard 3000-1986 Clause 3.12 details the requirements for connections between fixed wiring and equipment.

When installing equipment that uses a connecting device, a flexible type of cable is to be used. Armoured and unarmoured elastomer sheathed and thermoplastic sheathed cables of the non-flexible type are not acceptable for the purpose. Managers should ensure that electrical equipment that

is supplied via connecting devices or by a means other than a direct connection to fixed wiring, is fitted with a flexible cable.

Routine tests including the continuity of the earthing conductor of such cables should be carried out on a regular basis.

SCRAPERS

Some years ago mining companies were notified of the electricity supply requirements for 'Scrapers' used underground.

This type of machinery needs to be fitted with a flexible trailing cable and protected by both earth-leakage and earth continuity circuitry. Inadequately secured scraper winches have been pulled off the mountings when the bucket jams and the supply cable has been wrenched from its connection. This circuitry provides protection.

Time has been allowed to change existing practices and to set up and equip scrapers with the correct flexible trailing cables. The inspectorate expects full compliance to be achieved by July 1991.



Denis Brown-Electrical Inspector of Mines

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ACCESS TO 'LIVE' PARTS

Electrical enclosures containing exposed live parts shall be accessible to authorised persons only, and must be protected from unauthorised access by means such as interlocks, barriers or the use of a key or tool.

AS 3007.2 1987 explains these requirements in detail, but as Denis says, there are three words that have probably saved many lives: "TEST BEFORE TOUCH". That one simple procedure can avert serious injury and fatalities, and could have prevented an accident occurring when two electricians were seriously burnt in a recent electrical accident, when after having carried out a prepared high voltage switching programme, they inadvertently entered the wrong transformer compound and commenced work on a live transformer.

They should have satisfied themselves that they had correctly identified the specific apparatus to be worked on, that adequate isolation had occurred, and that earthing of the equipment had been undertaken and tested before touching the equipment.

The "Test Before Touch" principle should be reinforced and practiced by all electrical personnel.

Denis says that during the 1989/90 financial year 447 notifications of electrical defects were given to Registered Managers, and 75 electrical accidents were investigated. There were also three prosecutions initiated for breaches of regulations, all of which indicate that there is a need for immediate and effective improvement.

Unfortunately, there is no easy way to do things when you are dealing with electrical safety - only the right way, and get in touch with your electrical inspector if you have any doubts.

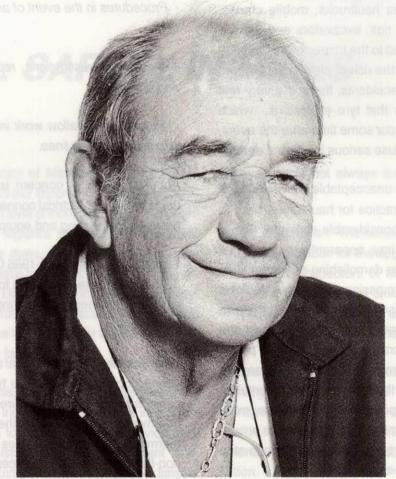
PAUL BROWN

WORKMEN'S INSPECTOR OF MINES

People chose to work in the mining industry for all sorts of reasons, but for Workmen's Inspector Paul Brown, it was a chance meeting with a Cornishman in Fremantle Gaol that set him on the road to his first job at Big Bell.

It was 1949 and after four years in the Merchant Navy, Seaman Paul jumped ship in Geraldton. He wasn't alone. Conditions on the tramp steamers were bad in comparison to Australian ships, and vessels were tied up all along the coast because whole crews had de-

serted. Many were cooling their heels in Fremantle Gaol, while magistrates cajoled them back onto unmanned ships. Those who refused, faced six months pending deportation. Paul, who had no desire to find himself on ship sailing into the Russian winter, refused to be enticed. Friends were able to help, and Paul eventually received a prized "Certificate of Exemption from Deportation", renewable every six months. The wheels of bureauc-



Paul Brown

MINE SAFETY INFORMATION PAMPHLETS

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racy turned slowly but he finally got permission to stay.

Big Bell was a long way from the romance of the Caribbean or the lure of the Ivory Coast, but Paul and his Cornish friend were happy. "In those days", said Paul, "conditions were pretty rough - primitive - but good - we had a great time".

Seamanship was to stand Paul in good stead on the mines. Rigging and wire splicing were seaman's skills that he would use time and time again.

For thirty years ,Paul worked the mines of Western Australia. The names of mines roll off his tongue - Phoenix, Princess Royal, Paddy's Flat, Great Fingall, Wittenoom, Horseshoe Lights - they are all part of Paul's vast store of experience. He was a driller at the Great Fingall - a place that forty years ago was not a healthy mine to work . Silica was a major hazard, and mining lore has it there is a cemetery north of Milan nicknamed the Great Fingall.

For a while, Paul drove road trains out of Meekatharra, and put in a couple of years as a fencing contractor near Cue. Paul remembers these years as some of the happiest times of his life, and is proud of the fact that those fences are still standing. The Brown's had only one child, but ever practical, Paul borrowed another to keep his

youngster company on the lonely routes he travelled.

Mining pulled him back, and Paul took up a life he'd grown to love. First to a job at the State Battery, then manganese mines at Hill 50, and the lead mines at Northampton. At the beginning of the 1970's he was back at Kambalda and spent 11 years at Durkin.

The mines were desperate for people, and Paul remembers that saying you were a miner was usually enough to get you a job.

In 1981, encouraged by Bob Leggerini in Kalgoorlie, Paul stood for election in the vacant position of Workmen's Inspector for the Karratha Inspectorate. As he was the only candidate it was a shoo in! He has been there ever since.

Paul Brown is passionate about his work. He believes the WIM does an important job. "It is an individual sort of job - it goes back a long way, and the reasons for having the position are as important now as they were then". Paul feels that getting from mine to mine and talking to people helps him to keep a fresh perspective.

He says that people should make good use of their Workmen's Inspector and sees his function as a go between for workers and management as an important part of putting an end to unsafe situations. "Many modern miners were not born to it, there's a lot of inexperience, and consequently a lot of ignorance" says Paul. In his job, he is able to bring the problems out into the open, and at the same time, maintain the confidentiality which is vital if he is to be effective.

Paul likes to keep his eye on the prospectors working his patch. The bush telegraph works very well over the long, empty miles and Paul can usually find the camps. He's spent many nights around a campfire using his considerable powers of persuasion to change situations that can lead to trouble. "They can do what they like when my back is turned" says Paul, "so I need to make sure they see things my way before I leave them".

Paul is rather like a travelling salesman, his product is safety, and often his experience at one mine will be useful at the next. He's also a confirmed Nor'Wester and plans to retire in the North. When he does, the industry will lose a man whose mining experience is unique.

Perhaps he'll write a book and in that way, continue to share his experience with us.

serch Assikibrarian

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KARRATHA INSPECTORATE

The awesome Pilbara is an uncompromising landscape where intense heat, cyclone and flash flooding dominate the fragile desert and semi-desert country.

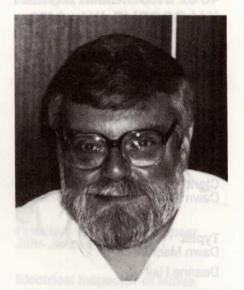
It is also the headquarters of the Karratha Inspectorate which stretches from Carnarvon in the south, and north and east to the Northern Territory border.

Originally based in Port Hedland, the Inspectorate moved to Karratha in 1982. Fromhere, Regional Mining Engineer, Martin Knee and his team carry out the complex business of mine inspection over an area bigger than Victoria, Tasmania and New Zealand put together.

The inspectors, the environmental officers, and Secretary Dawn Asser, who Martin describes as the pivot around which the whole shebang turns,

are the eleven people who make up the Inspectorate.

Mining activity in the north is growing: Currently 45 mines are on the books and others are in the planning process. Martin Knee is philosophical about the "Tyranny of Distance" - It's a fact of life - and he sees planning the logistics of inspection to combat the geographical realities of the north as an important part of his managerial role. He does that by dividing the inspectorate into three: Currently, District Inspector Simon Ridge looks after the Kimberley, District Inspector Shaun Argus claims the North and District Inspector Charles Robertson monitors the southern district. In the north and south districts, the inspectors can count on between 6-7 hours driving time and four to five days away from base. The Kimberley run involves up to two days



Martin Knee- Regional Mining Engineer

driving and two weeks away, depending on the vagaries of the season getting stranded or bogged is an occupational hazard - so every effort is made to even up travelling distance and time away from home. Rotation is what makes it work, and takes place every 18 months to two years. As well at sharing the load, rotation also ensures that the inspectors keep a fresh outlook.

That fresh outlook is a basic key to the philosophy of mine inspection, and why inspectors must hold professional qualifications. All the inspectors agree that there is a high degree of professionalism in the industry, but their advantage is that they are not working on a particular site every day so they are able to assess a situation with a completely fresh eye - something they

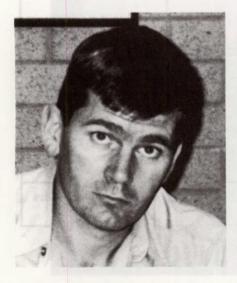


Chris Kirwin-Noise & Vibration Officer, and Dawn Asser-Secretary/Typist

couldn't do unless they had the necessary professional experience.

It is vital that the inspectors have a good working relationship with industry because people need to know that they can get in touch at any time, either for advice on any matters such as interpretation of legislation, or because they have a problem they wish an inspector to investigate.

As Martin Knee says, "On the whole, our relationships are good. Occasionally, we have to crack the whip, and we do have teeth and use them when necessary. Up here we have a fair spread of styles. There are large open cuts, the largest and heaviest railway system in the world at the forefront of rail technology; the diamond industry, base metal mines, one of the country's largest open cut gold mines, and we have to be able to deal with anything. It's a good place to learn and we see things here on a regular basis that the average mining engineer may not see in a lifetime."



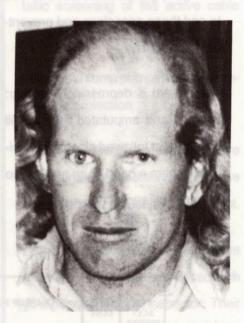
Simon Ridge-District Mining Engineer



Shaun Argus-District Mining Engineer

There are also several small prospectors operating in the inspectorate. Their mine is often only a dry-blower out in the bush, and they too expect and receive visits from the inspectors.

The workmen's inspector, two machinery inspectors, the occupational health and safety inspector and the 2 environmental officers have an onerous job as they cover the whole inspectorate. As well as their own programs of inspection, they need to be able to provide specialist back up for the district inspectors, and it is not unusual for them to make unplanned lengthy detours on their routes - a good reason for making sure that no inspector goes out without a full survival kit. In Karratha they have to expect the unexpected, but one thing they can always count on is plus 40 degree temperatures for most of the year and a very real need to be able to rely on their own resources - and Dawn Asser on the other end of the two-way radio. Despite the drawbacks such as climate and distance. Nor'westers, regardless of whether they are inspectors, union members or management, all know the secret of making it work. Quite simply, it's the close personal relationships that develop between people facing the common challenges of an isolated working environment. They work with some of the most sophisticated and some of the heaviest machinery systems in the world. Like the country, it's bigger than any one group of people, and working safely is a co-operative effort where there can be no compromises.



Dr Nick Dunlop- Environmental & Rehabilitation Officer

UNGUARDED TAIL PULLEYS -

ACCIDENTS WAITING TO HAPPEN

Previous issues of MINESAFE have featured stories warning about conveyor belt accidents. Unfortunately, mineworkers continue to ignore the warnings and the accidents continue to happen. After a marked drop in such incidents during 1990, five months into this year the industry is recording conveyor belt injuries effectively cancelling any gains that have been made to end these senseless and preventable accidents.

The pattern is depressingly familiar: crushed and amputated fingers still head the list followed closely by accidents where a hand or an arm is also seriously injured.

From the reports it is fairly easy to come to the conclusion that there is a strong belief in a technologically sophisticated industry that there is no risk attached to removing waste from a moving conveyor belt or idler on frame tail pulleys with whatever is at hand - often it is a hand, a broom, a shovel, a rake, a brush or a hammer that is used and the human frame invariably comes off second best.

Usually, guards have been removed to make the job of clearing the waste easier, and in some cases where the conveyor was stopped, it was not tagged out and was remotely restarted with inevitable results.

The Conveyor Safety Code - Australian Standard 1755-1975 is a comprehensive guideline that outlines the safety measures that must be followed if accidents are to be prevented.

Accidents like:

- broken fingers because a hammer being used to free rollers was drawn into the belt.
- A finger being amputated after a



	# OF ACC- IDENTS	DAYS LOST	CLASS OF INJURY			PARTS OF BODY INJURED					CAUSE OF ACCIDENT			
			MINOR	SERIOUS	FATAL	ARM	HAND	FINGERS	TORSO	LEG	MORE THAN 1 PART	WORKING ON MOVING CONVEY.	FELL AGAINST MOVING CONVEY.	OUTSIDE FACTOR INVOLVED
1987	12	480	4	8	-	1	3	3	1		4	8	2	2
1988	16	238	9	7		4	4	4	O SHOR	1	3	11	2	3
1989	13	158	7	5	1		3	5	Karrall		4	8	2	3
1990	5	244	1	4	-thens:	3	N DIE	1	expect		1	3		2
SUB TOTAL	46	1120	21	24	1	8	10	13	2 1/	-1	12	30=65%	6=13%	10=22%

CONVEYOR BELT ACCIDENT STATISTICS

shovel hand grip jammed against a piece of angle iron.

 A seriously bruised arm and elbow after a cleaning brush was pulled into the roller.

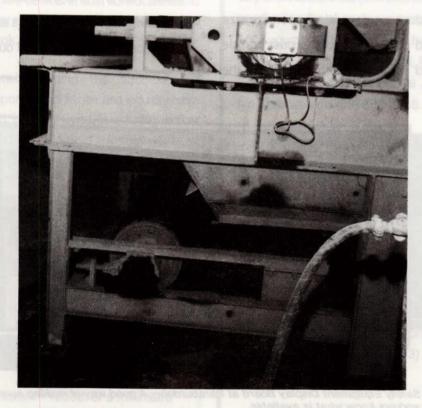
The list goes on. In every instance the conveyor was running.

Complacency is an excuse, not a reason, and the root cause of these accidents is either a lack of respect for the lethal power of machinery or a lack of understanding of the true consequences of unsafe work practices. The bottom line is that conveyor belt safety education and re-education is not only desirable but essential.

Less frequent, but equally disturbing, are those accidents that involve slipping or falling on or near catwalks. There is a 50-50 chance that the casualty will find their fall broken by a moving conveyor and the statistics confirm it.

Unfortunately, accident reports often do not state the reason for the slip or fall, but the fact that they are happening at all shows that a problem with either housekeeping or catwalk design probably exists.

The appalling reality of conveyor belt accidents is that each and every one has the potential to end in a fatality. It's time to do something about it.



Example of exposed (unprotected) pinch points at the tail pulley end of a conveyor.

SUBMERSIBLE PUMPS IN MINES

Installation requirements for submersible pumps such as bore pumps and sump pumps (flygt etc) continue to be mis-understood or misinterpreted.

Specific requirements apply to installations in a quarry (including dredge sites) and underground in a mine, and are detailed here.

- Bore and sump pump supply cables are required to be flexible and protected by an overall or individual metallic screening of the active cable conductors.
- Bore and sump pumps require earthleakage protection.
- Three-phase sump pumps require earth-continuity protection, single phase sump pumps and bore pumps do not.

Any proposed deviation from these principles should be discussed with your Mines Electrical Inspector. Their names and contact numbers are included in this issue of Minesafe.

DUST CONTROL AND THE SILICA HAZARD

In the last decade, the incidence of silicosis amongst mineworkers has been dramatically reduced. Because such improvements have been made in controlling silicosis, there may be a tendency to underestimate the potential hazard it poses to the health of those working in the mining and mineral processing industries. To ensure that sensible precautions continue to be applied, the Ventilation Board has recently issued a warning about the dangers of silica and the need for continuing vigilance.

ble pumps such as bore pumps and

Silica is the most abundant mineral on earth. It is a hard, glassy mineral which comes in different forms such as quartz, chalcedony (a variation of quartz) and opal, with elements also occuring in beach sand and most rocks. Its uses are varied; it is an essential component of glass; it is used extensively in the ceramic industry; and is used in refactory bricks.

Very small particles of silica are particularly hazardous, as inhalation of them can lead to lung diseases such as silicosis: a severe form of pneumoconiosis. One of the dominant features of this disease is the accumulation of large fibrous masses in the lungs. The risks of developing silicosis are much greater where workers

are subjected to high levels of siliceous dust over a long period of time.

Those most at risk are workers in occupations such as underground mining and tunnelling in quartz-bearing rock, where siliceous dust is most prevalent. Silica dust also presents a hazard in the sample preparation laboratory situation, where the dangers of handling finely divided minerals may not be fully appreciated.

The most effective method of reducing the risk of dust related lung disease is to implement rigid dust control methods, ensuring airborne dust is kept below exposure standards. The exposure standards for various types of dust are dependant upon the size and composition of the dust particle and its likely health effects. In the

case of silica dust, it is the "respirable" fraction of the dust which is of most concern. This term is applied to particles which are so small - normally 0.5 to 10 microns in size* - that they can be inhaled into the lower region of the lungs, where the gas exchange process takes place.

Scientists believe the most dangerous silica particles are those with a
diameter of less than 5 microns and
especially those with a diameter between 0.5 and 3 microns. These small
dust particles are not visible to the
human eye, so just because an activity or process does not look "dusty", it
does not mean a hazard does not
exist. This is one of the reasons the
Department of Mines requires regular
dust monitoring to be carried out.



Safety Equipment Display Board at Paraburdoo - A good way of making sure workers know what is available.

If monitoring reveals elevated dust concentrations, then control measures need to be implemented.

The basic techniques of dust control are: segregation and enclosure of dusty processes; the application of moisture to materials to prevent particles becoming airborne; and general workplace ventilation. The responsibility for the monitoring and control of dust on mine sites ultimately falls to the Registered Manager.

The Department of Mines also has a significant role in reducing the health risks to mine workers, by employing a regime of regular inspection and dust monitoring. Each of the Mining Engineering Inspectorates has its own specialist ventilation officers, whose job it is to go to the various mines sites to monitor the levels of dust, as well as checking on the efficiency and effectiveness of dust control measures. Where defects in dust control are found they are entered in the Mines Record Book.

Notwithstanding the success the Department of Mines and industry have had, in recent times, in reducing worker exposure to dust, the industry can not afford to be complacent. Only with strict vigilance, which includes regular monitoring of siliceous dusts and the application of precautionary measures, will the incidence of silicosis continue to be maintained at a very low level.

WHAT'S ON

Noise Control Officers' Course

This course is being conducted by the Western Australian School of Mines.

Kalgoorlie:

10-14 June (complete course) 12-14 June (refresher course) 17 June (EPA supplement)

Perth:

17-21 June (complete course) 19-21 June (refresher course) 24 June (EPA supplement)

For further information phone Brenda Peart on (090) 22-0143.

Seminar: "Mining Exploration in an Environmentally Conscious Society"

The Geological Society of Australia (WA Division) and the Australian Institute of Geoscientists (WA Branch) are conducting the above seminar on 15-16 August 1991. It will be held at Observation City Resort Hotel, Perth. For further information, phone Jocelyn Thomson on (09) 382-2855.

NDT 91 - Australian Institute for Non-Destructive Testing - National Conference

This conference is being held at the World Congress Centre in Melbourne on 19-21 August 1991.

For information on registration and accommodation, phone: (03) 387-9955 or fax (03) 387-3120.

University of Western Australia Lecture by Louis J Cabri - "Gold & Silver"

This has been organised by the Department of Geology for Friday 5 July 1991 between 2.00 and 5.00 pm. Contact: Janet Thickett (09) 380-2667.

Ventilation Officer's Course

The Division is intending to hold its next two Surface Ventilation Officer's Courses for 1991 in late July and October.

Interested companies should contact T Piscicelli on (09) 222-3095 to enrol nominees.

Course numbers are restricted to 20 places, and an early response would be appreciated.

VENUE: Department of Mines,

100 Plain Street, East Perth.

COST: \$150 per person

STAFF CHANGES

Eric Shenton, District Mining Engineer - Perth Inspectorate is retiring in July after 19 years of service with the Department and 45 years in the industry!

lan Marshman joined the Mining Engineering Division in April as a Health Physicist/Research Officer.

Roger Oliver is now Karratha Inspectorate's new Special Inspector of Mines (Machinery).

Religione alle br

Jay Ranasooriya is working in the Research & Technical Services Branch as Geotechnical Engineer.

^{*} micron = 1000th of a millimetre



ACCIDENT ALERT

A boilermaker sustained injuries to his arm and thigh when a cutting disc fitted to a hand held grinder he was operating shattered.

CAUSE

The cutting disc fitted was rated with a maximum rotation speed of 4200 RPM. The grinder produces a rotation speed of 8500 RPM.

PREVENTION

Only correctly rated discs should be used on grinders. Furthermore machine guards should not be removed and all personnel using grinders should be made aware of this potential prob-

UPDATE OF PUBLISHED SIGNIFICANT INCIDENT REPORTS

Operator Safety - Earthmoving Scrapers

lyn Thomson on (09) 382

Winding Rope Detachment

LEGISLATION

The Mines Regulation Act 1946 and Regulations have been reprinted. The publication is available from the Department of Mines' Counter, 1st Floor, 100 Plain St, East Perth at a cost of \$20.00 or by phoning (09) 222-3410 or 222-3411. It incorporates all amendments up until April 1991 (including the new Noise Regulations).

MINESAFE

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