Mining Underground

Now is the Time for Safety Stewards

The National Union of Mineworkers (NUM) faced two major disasters within a month: first the accident at Kinross mine which killed 177 miners; then the government's announcement of the repatriation of 58 000 Mozambican mineworkers. Both these events will have resounding effects on the union and the industry. INGRID OBERY draws on JEAN LEGER's report to NUM discussing health and safety conditions on the gold mines.

The accident which killed 177 miners at Kinross mine on 16 September highlighted the issue of health and safety in the industry. But for mineworkers and management this is an ongoing terrain of struggle.

Fire broke out at Kinross when a gas cylinder used for welding caught fire, and then set alight 600 meters of polyurethane sealant used to prevent corrosion and seepage of water in mine tunnels.

The Chamber of Mines has publicised the dangers of polyurethane for the last 18 years, and most mines limited the use of the substance. Kinross management said it had been aware of the danger but that 'many potentially dangerous materials had to be used in all mines, but their use was restricted' and precautions were taken to manage the risk.

At Kinross, these precautions were clearly inadequate. And the same holds for many other health and safety hazards in the mines. Workers are aware of dangers; so is management. Yet not much is done.

The International Labour Organisation recently found that South Africa has one of the highest death rates in the world on its mines. About 600 workers die in gold mining accidents each year. And since 1900 more than 46 000 miners have died and hundreds of thousands have been seriously injured. Most victims were black. And there is no record of those whose lives were cut short or ruined by occupational diseases.

Safety issues have become a priority for the National Union of Mineworkers. In its first industry-wide action, 30 000 workers participated in a halfhour stoppage after 68 workers died at Hlobane colliery in 1983. Evidence at the subsequent inquest and inquiry bore out NUM claims that there were inadequate safety standards at the mine.

At present NUM is negotiating safety agreements with President Brand mine in Welkom, Saaiplass in Virginia, Western Holdings in Welkom, Elandsrand mine in Carltonville and Ergo plant in Brakpan.

This is not an easy task according to NUM safety officer, Hazy Sibanyoni. Mine managements believe health and safety is a management affair, and resist worker participation. Sibanyoni compares the struggle to get safety stewards recognised to the struggles unions undertook for shaft steward recognition as legitimate worker representatives. Once safety stewards are recognised, they, together with workers and the union, will begin to challenge all safety and health hazards.

Safety stewards will check work places for hazards, advise workers about health and safety issues, process complaints, ensure that no short-cuts are taken around safety precautions, and negotiate any other health and safety-related issues with management on a day-to-day basis.

Safety steward structures will mirror other union structures with local and regional committees made up of representatives from mines in the area. Sibanyoni believes these structures are most powerful and will help to conscientise workers about health and safety issues.

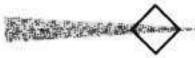
Although none of these safety negotiations are complete, some are nearly at an end. 'It took a long time to convince management that there was a need to negotiate these issues', explained Sibanyoni.

The Chamber of Mines has claimed that structures already exist for the union

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and management to discuss safety issues. They insist that NUM raised only five issues regarding safety in the last 18 months, and that all these were being dealt with.

MINERS DEMAND RIGHTS



Mineworkers do have some rights under existing legislation:

* the right to refuse dangerous work.
But as miners pointed out, this was not always easy;

* the right to use the complaints book;

* the right to go to the inspection and
inquiry held after an accident - but
only if the person concerned is blamed
or held responsible for the accident.
Stewards and union officials should
always have access to accident sites,
say mineworkers;

* the right to call for a special inspection. But this is not the case if miners feel their workplace is unsafe;
* protective clothing - but miners said clothing provided was inadequate;
* toilets near to the workface; and
* drinking water near to the workface;

Workers' rights are the key to safer mining. NUM has drawn up a 'Bill of Rights' which it feels will lessen hazardous conditions. Most clauses have been put forward for inclusion in safety agreements. NUM has demanded that the agreements contain the following:

* the right to elect safety stewards and safety committees;

* the right to refuse dangerous work;

* the right to call and accompany inspectors on all inspections, without loss of pay;

* the right to proper health and safety training;

* the right to all information about health and safety;

* the right to protection from punishment when demanding rights; * the right to have a say in the running of the mine and all future plans, such as purchase of safe machinery.

WORKING AT THE STOPE



During 1985, NUM investigated underground conditions in gold mines. Ninety experienced miners interviewed

believed most mining accidents could be prevented.

They discussed daily hazards such as noise, heat and rockfalls, and told how white miners seldom kept safety regulations.

In 1976, special exemptions under the Mines and Works Act allowed many functions previously done by white miners to be undertaken by team leaders, who supervise the group of black miners working the face of the mine - the stope. One of the interviewed miners said: 'In the old days white miners showed me where to bore the holes. Now only the team leader tells me what to do'.

A team consists of a winch driver, a miner's assistant, rock-drill operators and general team members. Team leaders must be able to do all jobs. The team leader answers to a white miner who is in turn answerable to the shift boss.

A crucial part of a miner's day is the process of 'making safe', ensuring that the stope is secure for drilling and clearing. This used to be the sole preserve of white miners but team leaders may now do it. However, this means white miners often do not go near the stope.

Workers said white miners were not keen to experience the extreme heat, humidity and narrow confines of the stopes. White miners, they said, were primarily concerned with the rate of production, since the size of their bonuses each month depends on the rate at which the stope face advances.

Similar problems occur during blasting. Only 'scheduled persons' with blasting certificates may directly supervise the handing out, installation, charging and detonation of explosives. In practice, miners' assistants and team leaders carry out these functions. One team leader said leaders supervised production and had to be able to take part in all aspects of production - '...lashing, fastening packs, doing the wager pipes, connecting the blasting cables'.

Team leaders assist new workers and provide a large part of their on-the-job training. They have a crucial co-ordination function in the stopes, ensuring safety of fellow workers and that adequate supplies and equipment are available.

Dangerous conditions mean workers' lives are at stake. Often they tolerate the poor environments because the

effects of occupational diseases take years to become evident. But unstable rock ceilings mean death is an ever-present possibility. In such cases the white miner in charge of the stope should evacuate all workers and inspect the area. But often team leaders will not interrupt work once it is under way.

Workers believe that if the white miner is called to inspect dangerous conditions his main interest will be to ensure that workers continue with production. Usually team members rely on the leader to remedy unsafe conditions. In serious cases a white miner is approached, but often such requests are ignored and miners felt the white miners' assistance was unsatisfactory.

CONTROLS AND BONUSES



A typical gold mine has up to 250 stopes, each with 40 meters of work-face - a total face length of 10 kilometers. Few factories have such a length of work space to control. Add pitch dark, confined space, the noise and heat of the stopes, and management supervision is even more difficult.

Control is achieved largely through systems of sanction and reward: the threat of disciplinary action and bonuses. White miners and shift bosses control the 'charging' of black workers - the disciplinary process when workers break rules. They are also the ones who stand to lose big bonuses if production does not reach set levels. A team leader said about his team: 'They do work overtime if they have not finished the work because I will be charged if they do not finish'.

Workers fear 'charges' - that is facing complaints laid by a senior miner before a disciplinary 'court'. If found 'guilty', a worker may face demotion or dismissal. Miners interviewed said many charges arise from circumstances beyond their control.

According to one miner, the team leader 'reported to the white miner that I had not finished my job. I was charged. But I did not finish because we were forced to knock off early because they were ready to blast. I tried to ask questions at the disciplinary committee, but the miner who laid the charge was not there. They said to me: "Here are the papers, you did not want to work".

They gave me a record'.

In such situations workers are encouraged to take risks rather than ensure their safety. They are also hampered by a lack of statutory rights which would allow them to refuse dangerous work.

Both white and black miners receive bonuses. But bonuses paid to white miners are open-ended, and there is no limit to the amount they may earn. Black workers are limited to maximum bonuses of one third of the basic rate of pay. White miners receive 'supervisory' bonuses which relate to the amount the teams they supervise have produced. Often they supervise up to one hundred men.

Black miners receive individual bonuses for work done. On most mines only machine-drill operators and their assistants get bonuses, although some mines pay team bonuses.

Does the bonus system cause accidents? Many workers were not clear as to how their bonuses were calculated, but felt safety precautions were more important. As one miner said: 'We first count our lives, money comes thereafter'. Team leaders feel this most strongly since. they are responsible for team members' safety and they believe bonuses are too small to worry about: 'You cannot kill people for fifty cents'.

But, workers believe, many white miners neglect safety measure because of their bonuses: 'If you tell the white miner that this place is dangerous, he will tell you to do the job faster so he can get his bonus'.

REFUSING TO WORK



Workers do not often refuse to work in dangerous conditions. When they do, intense confrontations between team and white miner often result and usually workers return to work when the miner insists.

A machine operator told this story:

'When I got into the place it was too
dangerous, the place was trembling. I
told the team leader who told the white
miner. The white miner told the team
leader, "Put the packs here, the only
thing I want here is work". I refused to
drill. The white miner fetched another
machine operator and I did the lashing
job. When I knocked off I was taken to

the mine captain who asked me why I refused to work. I said it was dangerous. He asked me if there were supports in the stope. I said yes, but it was still dangerous. The mine captain said "The white miner said you struck". He said it was a final warning for me'.

Workers believe if they persist in refusing to work they risk a disciplinary charge. Yet their experience is that if they return to work the risk of death or injury is extremely high. Workers believe they should have the right to refuse dangerous work. As one miner said: 'It is my right because when those hangings fall, they will kill me, nobody else. When I am dead, there will be nobody to support my family'.

Many workers said they generally had to 'work first, complain later'. They said the 'mteto', a code of five primary safety rules they learned in training, were often not adhered to.

Workers in other countries have far more legislated rights to refuse dangerous work or work which threatens their health.

South African mineworkers cannot accompany mine inspectors during regular inspections. They can do so after an accident but only if they are held responsible for the accident.

Workers interviewed said union shop stewards should be able to go on all inspections and that this would avoid pressure on workers to commit perjury at accident inquiries. One miner said that when somebody has an accident, the white miner may pressurise black miners to agree that the place was safe. If a shaft steward was there, he could not agree with the report, and the truth would be told about the accident.

PROTECTIVE EQUIPMENT AND TRAINING

For management there is always a conflict between effort and resources devoted to improving the working environment, and constraints on working costs. This applies particularly to underground mining because once an area is mined it has no further value.

Safety measures include engineering controls and safeguards such as silencers on drills, guards around moving parts, hydraulic and timber supports. There are emergency procedures



such as checking vehicle brakes, evacuating workers where danger threatens, and personal protective equipment to minimise injuries when accidents occur. Examples are boots, hard hats, gloves and hearing protection.

Miners suffer many injuries to toes and feet. Many could easily be prevented _ WIP

if they wore boots with steel toe-caps and metatarsal guards (steel guards over the top of the foot), or soles made of spring steel to prevent injuries caused, for example, by stepping on a nail, and non-slip soles and studs.

Current issue mine boots cost R15 to make. For an extra R2 they could be fitted with toe caps. Proper socks and laces are also important to prevent sprains, ruptures and torn ligaments.

Workers are required to pay a minimal amount for boots, and management does not supply proper socks or laces. But workers believe they should not have to pay at all. As one worker said: 'It's not good to pay for clothes that help in the production of the mine'.

Hard hats are also essential since head injuries are a common cause of death on the mines. Workers complained that hats issued were inadequate. 'When the rocks fall this cap is the first to fall - then the rock finds a bare head and danger appears'. They said hats should have brims to protect ears, and straps to prevent them falling off.

Noise deafness is a constant hazard to mineworkers. It is incurable. Miners are exposed to a noise level of above 100 decibels. Manufacturing workers may only be exposed to this level for a maximum of 15 minutes a day according to Machinery and Occupational Safety Act (MOSA) regulations. Mine machine drillers experience noise levels up to 120 decibels. MOSA only allows 45 seconds exposure per week at this intensity. So at least a quarter of all machine drillers may be expected to have noise-impaired hearing loss within five years.

Nearly half of all injuries are caused during drilling operations. The 'fog' produced during drilling reduces visibility, and the noise means workers cannot hear rock cracking and falling, or warning shouts or sirens. 'There is so much noise that after some time you will find somebody, even if still young, cannot hear a damn. Just like mine now, I have been going to the medical station for some treatment. There is none', said one mineworker.

Mine management does not provide adequate ear protection underground, although miners learn about this during training in the mine school. But workers are also not keen to wear protection because they say it prevents them hearing warnings of rockfalls and rockbursts.

Since pneumatic drills make much of the noise underground, one solution would be to fit them with suitable silencers. These would cost approximately R50 extra per drill. The silencer also reduces the amount of exhaust fog.

FANAKALO - LANGUAGE OF THE MINES



Fanakalo is the language of the mines. It is a mixture of English, Afrikaans and various African languages. All mine training courses for black miners are taught in fanakalo. This is dangerous, workers say, since new workers 'do not understand fanakalo and become confused. And new workers are given a very short time (for training) because they go underground before they are conversant with underground implements and how they are used, and before they are conversant with fanakalo. Even if you say "pasope" they just give you a blank look'.

Most workers said training was inadequate, and that many techniques and equipment demonstrated in training were not applied or available underground. Formal training provided for both black and white miners is very short by international standards.

New workers' lack of understanding of fanakalo means they cannot read or understand basic safety signs and calls such as hazard stripes, 'no entry' and 'methane'.

Studies of mine accidents have shown that novice workers with less than four months suffer far more injuries and have twice the number of accidents than experienced workers (two-and-a-half or more years) doing the same job.

Underground fatality rates for white workers were higher than for black workers until the early 1930s, but by the 1980s the black worker fatality rate was 67% higher than that of white miners.

Black miners believe white miners are to blame for neglecting safety precautions and coercing workers in order to achieve production bonuses. But white miners are not the core of the problem, merely fitting into a profit-oriented system of production. They do less and less directly productive work, but are a crucial management front-line, deflecting worker anger about conditions away from management.