



Doing time

working hours on the gold mines

Working hours in the gold industry are long and arduous. Section 9 of the Mines and Works Act of 1911 set maximum standard working hours for underground production workers at 48 hours per week. Various amendments have occurred to this section over the years, but the basic framework remains the same.

The other working time provisions in force until the BCEA comes into effect are:

- ❑ Underground travelling time of up to one hour per day. This is not counted as working time, and is unpaid.
- ❑ A limit of 60 hours per week for work related to accidents and emergencies, non-risk work underground, risk work on the surface, and work performed for the purposes of health and safety or transporting persons to and from working places underground.

There is no distinction between ordinary and overtime work in the regulations, nor any prescribed overtime rates. There is no statutory limit on daily shifts. As soon as the NUM was recognised, the Chamber of Mines demanded that it agree to exemption from the BCEA (1983) in return for signing the annual wage agreements.

Within this framework, which has now lasted 87 years, the traditional pattern was a six-day working week. Sundays were a day of rest for production workers, when routine maintenance and refitting was done by the engineering division.

Rapid downscaling in the gold mining industry has forced the NUM to abandon its formal policy of a five-day, 40-hour week. Pete Lewis examines flexible working time arrangements on the mines.

Working for change

Representatives of the unrecognised Black Mineworkers' Union gave written testimony to the Lansdowne Commission hearings in the mid-1940s on conditions of work in the gold mining industry, emphasising the long working hours and the arduous life which they imposed on workers. They were ignored on every point and the result was the 1946 mineworkers' strike that was suppressed by force of arms by the state.

Throughout the 1960s and 1970s, the racially exclusive Mine Workers' Union (MWU) campaigned for a 40-hour week for its members, the 'union men' who supervised black mineworkers. After many rebuffs from the Chamber of Mines, the MWU balloted for a national strike in favour of the 40-hour week. The apartheid government appointed a commission of inquiry "into the possible introduction of

the five-day working week" in the industry, under the leadership of Franzsen. The Commission sat for two years and published two reports (1977 and 1978), which argued that an 11-shift fortnight was as far as the industry could be expected to go to accommodate the aspirations of white mineworkers (and incidentally black mineworkers). However, employers should consider moving to a five-day working week in a seven-day mine week (ie, continuous operation, with a shift roster equivalent to a five-day week).

The Chamber exacted four concessions in return for the universal adoption of the 11-shift fortnight with a 48-hour week as the standard working time arrangement under the Mines and Works Act during the mid-1970s.

- ☐ Unpaid travelling time was increased from 30 minutes to one hour.
- ☐ The statutory duty of MWU members (who had the racially exclusive right to blasting certificates) to carry out safety inspections of underground working places before the shift commenced was removed, allowing black workers to carry out these inspections. This allowed white mineworkers, travelling down in segregated cages, to arrive late on shift. Segregation in lift cages also ensured they left early. One of the pillars of job reservation underground was thus removed. The position of black 'team leaders', who are now recognised as the most important layer of line management underground, was enhanced.
- ☐ Black workers gained an extra day off per fortnight, but they continued to work longer daily overall shifts than their white counterparts.
- ¹¹ ☐ The Sunday night shift would start at 9pm instead of midnight, so that a full night shift could be worked before the Monday morning shift.

It was also agreed that the Minister of Mines would be empowered to allow Sunday production work on application from any particular mining company. This opened the door to Franzsen's recommendation that the mining industry consider moving towards the seven-day mine week - now known as full calendar operations (FULCO).

FULCO

As the gold price soared in the 1980s to unprecedented heights, the number of marginal mines in South Africa shrank. Mine managers did not feel the necessity to use this clause. With the onset of the gold crisis in the 1990s, FULCO has become a major strategy, along with other flexible working time arrangements.

The crisis in the international gold industry was signalled by the long-term decline of the gold price from the late 1980s. In South Africa, this was overlaid by political transformation and the democratisation of labour legislation (the LRA, the Mines Health and Safety Act 1996) and structural adjustment policies which ushered in full-scale globalisation of the economy.

South African gold producers have reacted to these structural changes in many

International comparison

The Franzsen Commission studied working hours internationally and concluded that in all western countries, the 40-hour week in underground mining had been achieved, or was in the process of being implemented by the mid-1970s. The Chamber of Mines has consistently asserted that this is irrelevant because the mines in South Africa are so much deeper. The employers argue that a 40-hour week is technically impossible, because of the long travelling time required to get underground.

ways, the most important of which are:

- ☐ develop hedging policies to raise the medium-term gold price;
- ☐ reorganise executive and financial structures to create flatter (and cheaper) management hierarchies;
- ☐ rationalise, downscale and accelerate internationalisation of production to decrease the working costs per ton of gold;
- ☐ institute labour productivity as the central pillar of all collective bargaining.

The traditional demand for a 40-hour, five-day week is becoming less and less relevant. Employers are pushing greater flexibility in working time arrangements in the form of FULCO, initially in the increasing number of marginal mines, but more recently as a generic approach to working time for the entire industry.

Flexible schedules, including FULCO, are not just a change in working hours arrangements, but a fundamental reorganisation of the labour process and life in a mine. These include changes in:

- ☐ labour organisation and the labour process to increase overall profitability;
- ☐ working hours and pay arrangements;
- ☐ collective bargaining, both in its impact on living standards for mineworkers, and in the level at which it takes place.

Labour process

Under FULCO, production takes place every day of the year, with different shift teams using staggered cycles of on-duty and off-duty periods. The mine operates on public holidays and there is no shut down at year-end. Flexible working time arrangements reduce overtime. There is a more intense use of working time, stimulated by output-related pay systems and other labour process innovations.

These cycles are usually begun in one area of a mine and then rolled out to other areas if they prove successful.

There are a variety of different FULCO schedules that have emerged, because the details were negotiated at mine, and not at Chamber level. The more marginal (or badly-managed) the mine, and the greater the threat of retrenchment, the more arduous has been the FULCO shift cycle for mineworkers, since less arduous cycles operate with higher labour costs.

The demand for a 40-hour week in the gold mines must be shaped to be relevant in the new 'flexible' working time arrangements. Reduced working hours will be achieved through:

- ☐ minimising the number of shifts worked in a any period (for example, 28 days);
- ☐ maximising the number of Saturdays and Sundays scheduled as off days for each team, and creating schedules that give each team the same number of Saturdays and Sundays off;
- ☐ keeping shift lengths at eight hours;
- ☐ maximising the labour complement per stope or development end to retain jobs;
- ☐ minimising the number of consecutive shifts required by each team;
- ☐ maximising the life-span of the mine.

Some examples: In the months after the national productivity agreement was signed by the unions and the Chamber of Mines in 1997, the NUM branches at Western Areas and Joel Mine (then part of JCI) pursued the concept of an 8-4 system (eight days on, four days off), as this approximated most closely an average 40-hour week (averaged over a four month period). At that time, Joel had been working a FULCO schedule of 12-4 (12 shifts on duty, then four off) since 1992/3, whereas Western Areas was still using the traditional 11-shift fortnight.

The 8-4 cycle was rejected by mine management, who claimed it would require a 50% increase in production staff, which would render production



Working hours are becoming more flexible.

unprofitable and shorten the life of the mine drastically.

The negotiations in 1997 at Joel Mine resulted in the adoption of the 9-3 system, which added some labour requirement, and reduced the number of consecutive shifts. Following this, Western Areas Mine also agreed on the 9-3 system. This system is not popular with underground workers, who regard the nine consecutive shifts as too taxing. Fatigue is said to set in seriously after the sixth shift. There are also problems with the weekend configuration.

Other FULCO systems present less problems. The Goldfields system (seven shifts on duty and one off, 7-1, 7-5) has much support from mineworkers, because the five-day break always includes a Saturday and Sunday, and is long enough to allow them to take part in community and family affairs. Non-FULCO systems, such as the 'long off', (in terms of which the mine operates four days less than for FULCO,

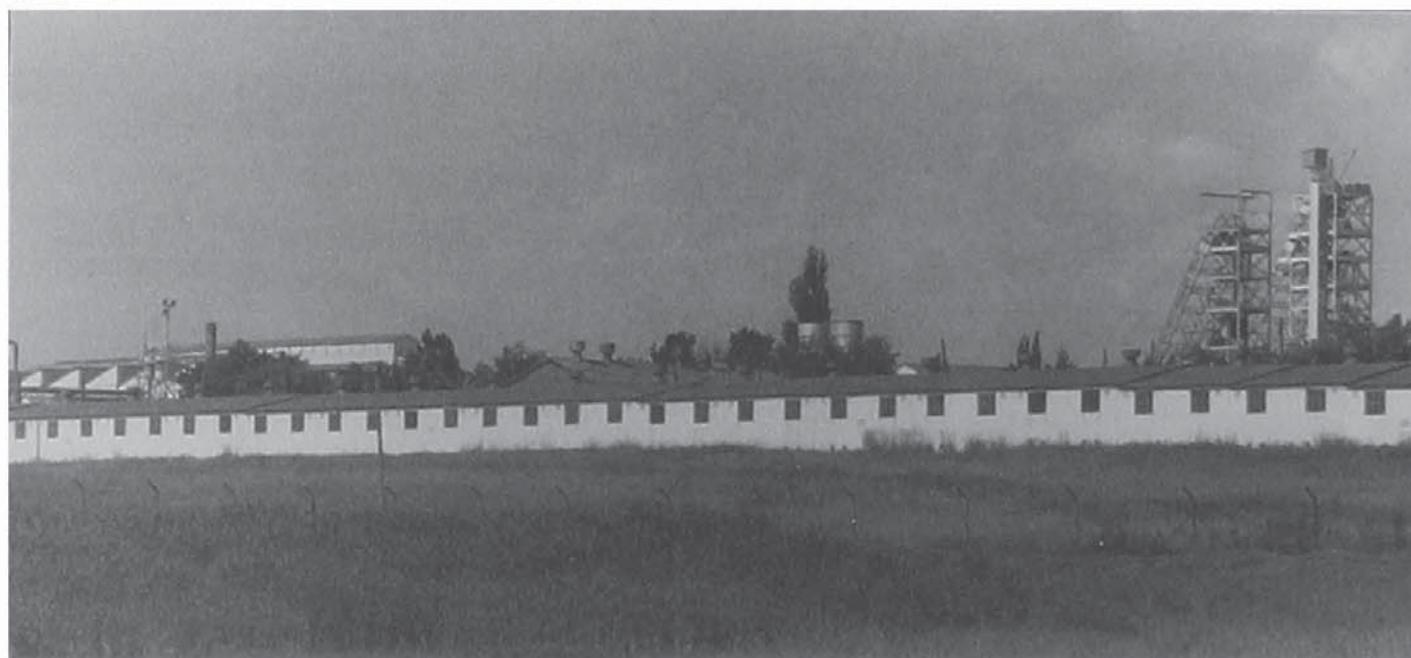
which allows more regular breaks to reduce fatigue build up and a long weekend including Saturday and Sunday every 28 days) present more opportunities.

In the context of a rapidly downscaling industry in an increasingly competitive and globalising market, NUM has had to abandon its formal policy of the five-day, 40-hour week. Instead, it has become involved in negotiating these flexible types of shift schedules.

Social existence

At the single-sex hostel, Sundays, and Saturdays from the mid-1970s, were collective time when religion, sports, cultural activity, entertainment, drinking, family visits to townships off-mine, sexual relationships and entrepreneurial and economic activity could take place. It was also the time when trade union and political activity took place.

Flexible working time systems threaten to destroy this collective time. Housing



Hostel conditions are still very poor.

subsidies for off-mine housing are still very expensive for the vast majority of mine-workers, so there is no mass exodus from the hostels as yet. Other problems created by flexible working arrangements are:

- ❑ The taxi industry, which mineworkers rely on to travel to rural homes in off-days, is still geared to services operating at the weekends.
- ❑ Hostel conditions are still very poor in many mines. Up to 20 workers share one room. Sleep is disturbed when different teams are sleeping in the same room.
- ❑ Many mineworkers' children live in their rural districts and go to boarding school. Workers can only see them at weekends. They lose contact with their children if the off times are mid-week. Community functions (weddings, funerals) take place on weekends.

Collective bargaining

Flexible working time arrangements have been negotiated entirely at mine level, in a climate of crisis and downscaling, when the ability of unions to resist employers' demands have been severely compromised.

Despite several efforts by the NUM to

negotiate an industry-level agreement on FULCO shift cycles, the parties remain very far apart on this issue. To date, there has been no Chamber-level agreement on minimum labour standards for flexible working time arrangements. Compare this to a two-year national inquiry with a tripartite agreement on the 11-shift fortnight in the mid-1970s. The 1997 National Wage and Productivity Agreement merely stated that FULCO or other flexible working time arrangements may be one of the issues discussed at mine level, as mines determine how they will meet their productivity target.

The Mines Inspectorate has not expressed any opinion on flexible working time arrangements, beyond requiring mine-level agreements from the unions to any application by employers for exemption to carry out routine production work on Sundays. Sunday work on mines is not prohibited in the new BCEA, so even this intervention will cease when the Act comes into force in December. After the 12-month grace period for compliance by the mining industry, the BCEA minimum standards will apply, but these will have little effect

on current flexible working time arrangements beyond requiring them to fall within the average 45-hour week, and the requirements for average weekly rest periods (minimum 60 hours per two weeks). This will eliminate the worst variants, but will not shape developments much beyond that.

The provisions allowing variation downwards by the Statutory Bargaining Council will apply, further weakening regulation of working time in the industry.

There is still a need for a 'best practice' flexible working time arrangement as a national standard for the industry, and this can only be negotiated in the Bargaining Council.

Health and safety

The BCEA will require employers in the mining industry to arrange working time so as to operate in the interests of health and safety, and to take into account the family responsibilities of mineworkers. A code of practice to help employers comply with this general responsibility is currently going through Nedlac.

Mineworkers argue that flexible working time arrangements that require an increase in consecutive shifts (such as nine or even 12) before rest periods are too arduous in the underground environment, especially in the deeper, hot mines. They say that any more than six or seven consecutive shifts create serious problems of fatigue, heat stress build-up, and safety.

Mine technical departments argue that FULCO schedules in principle improve safety, because continuous operation reduces the stress in hanging walls underground. Falls of ground (by far the most common cause of fatal injury in gold mines) are less likely to occur.

Many mine-level agreements make provision for joint monitoring committees to solve problems related to the shift

arrangement, but there is little detailed information coming out of these committees on health and safety impacts. Small-scale investigations have been conducted using mine accident data. Preliminary findings are that accident rates in particular mines can increase when moving from the 11-shift system to a flexible or FULCO system. The severity of injuries from accidents has also increased in several cases.

The NUM is currently pursuing a proposal through the tripartite Safety in Mines Research Advisory Committee (SIMRAC) for a national research project to investigate the relationship between different flexible working time arrangements and injury rates and severity. This does not alter the need to negotiate a minimum standard for flexible working time arrangements.

Whither the 40-hour week?

On the gold mines, the demand for the 40-hour week must be translated into a demand for acceptable continuous and other flexible working time arrangements. In the eventual legal environment of the BCEA, there will still be a need to negotiate limits to flexibility to protect mineworkers against dangerous and arduous shift schedules. Such negotiation can only take place at Bargaining Council level.

In the process of negotiating productivity agreements, the NUM is identifying those flexible working time arrangements which are acceptable. These experiences need to be brought to the national negotiating table so that national minimum standards can be set. ★

Pete Lewis is a researcher with the Industrial Health Research Group (IHRG). This is an edited version of a report prepared for Naledi's 'Long-term research project on hours of work in South Africa', which was co-designed with the IHRG.