

Part 1: Introduction

1.1 Background and terms of reference to the review

There has been increasing unease about the impact of extended and intensive working hours in the Tasmanian mining industry. Twelve hour shifts are now the main arrangement at every site in Tasmania. Average weekly hours range from a minimum of 42 to in excess of 60 hours per week but can be as high as 72 hours plus across a roster cycle. Many managers, employees and families appear to struggle to find the appropriate balance between the competing demands generated by these arrangements.

Concerns about these rosters have focused on evidence that long hours adversely affect the health and safety of employees, disrupt family life and damage local communities¹. These concerns were strongest among families, employees and communities on the West Coast of Tasmania. These issues converged with concerns about how the mining industry had performed under a more self-regulatory health and safety environment.

There was a range of factors that facilitated the announcement of the Review:

- The existence and spread of a range of extended and intensive roster patterns in some of the mines on the West Coast and elsewhere
- Concerns about some of these rosters and in particular the impact on families and local communities
- Concerns about the occupational health and safety impact of extended shifts
- Government response to these issues in light of a pre-existing intention to undertake a review of safety in the industry.

The Tasmanian government intended to undertake a review into safety in the mining industry as part of an evaluation of the move away from prescriptive legislation. The concerns raised above and the deaths of two young miners in June 2001 provided the immediate impetus to announce the broader review of safety across the industry.

In September 2001 the Tasmanian Government formally announced a two-part review into safety in the state's mining industry. Part 1 of the review has focused on the impact of extended shift rosters on occupational health and safety and family life.

This Review makes reference to the following factors:

¹ Indeed, the Australian Industrial Relations Commission in the recent decision on 'reasonable hours' accepted the evidence that excessive working hours could impact in deleterious ways on family life and occupational health and safety. More information of this decision can be found at <http://www.airc.gov.au/>.

- Implications for occupational health and safety (for example: exposure, fatigue, manual handling, environmental factors)
- Effectiveness of current fatigue assessment and control measures and practices utilised by management
- The impact on the family of the worker working a modern shift roster
- Other factors that may impact on the safe operation of working time schedules (for example: performance targets, other incentives, industrial relations arrangements, other management practices)
- Efficacy of current regulatory options for the management of working time schedules and extended hours regimes
- Options and recommendations for improving/addressing the identified issues

It is intended that the findings from this stage of the review provide guidance for Stage 2 of the Review. Stage 2 will examine the effectiveness of the current OHS legislation in Tasmania in the mining industry. This report raises a range of issues that warrant much closer attention in the next stage of the Review.

1.2 The conduct of the Review

1.2.1 Conduct and administration of the Review

The Review was conducted by Kathryn Heiler, who was seconded to the Tasmanian Government from the Australian Centre for Industrial Relations Research and Training (ACIRRT) at the University of Sydney. Ms Heiler spent almost 4 months in the field in Tasmania from October 2001 until January 2002.

Other researchers assisted with fieldwork. Linda Cowen (ACIRRT) assisted with fieldwork at Renison and Rosebery Mines; Dr Angela Baker (University of Adelaide) assisted with fieldwork at Savage River. Catherine Sword provided significant assistance with data analysis and Dr John Buchanan and Dr Richard (ACIRRT) provided important feedback and assistance with the final report. In addition, separate smaller reports were commissioned from the University of South Australia (fatigue modelling)² and Mr Mark Treffry (financial impact)³. Other individuals provided assistance and information throughout the Review on specific hazards.

Steve Hyman, Director of Industry Safety, Workplace Standards Tasmania acted as the main government contact throughout the review and report writing phase.

1.2.2 The status of information

The terms of reference for the review were broad and encompassed complex workplace, family, health, safety and regulatory issues. The conduct of the review was negotiated with the key stakeholders from the outset of the Review to ensure maximum co-operation and free up the flow of information. Access to the sites and to employees was provided on the basis of the following principles. First, that the focus would be on the

² This report is contained in Appendix 1.

³ This report is contained in Appendix 2.

impact of the rosters, rather than on individual companies. Second, that the confidentiality of participants would be preserved. This had implications for the presentation of information in this report. In particular it has meant that detailed information related to specific companies and individuals could not be revealed. Thus the findings documented in this report cannot always be accompanied by explicit reference to specific evidence that supports that these findings.

However, this does not mean that the key findings of the review are compromised in any way. The legitimacy of the findings is in the comprehensiveness of the research approach, and the large number of individuals personally consulted.

1.2.3 Key sources of information

Individuals

The review was conducted with a commitment to a high level of consultation and involvement of the key industry stakeholders. This involved:

- Over 14 weeks spent in the field interviewing stakeholders, peak bodies, management, employees and families across all of the sites and communities
- Over 700 individuals who spoke personally to researchers or in groups
- Over 70 managers and supervisors who were interviewed personally
- In total, over 1000 individuals who provided information to the review by way of interview or survey.

Stakeholders

The following stakeholders provided information:

- Major mining companies and contracting companies
- Management of the major mining companies
- Technical staff and employees
- Families of staff and employees
- Employee representatives and their organisations (trade unions, peak union bodies)
- Industry peak organisations
- Community organisations and other key informants
- Government officials

Companies

All the major companies involved in the Tasmanian mining industry participated. These were:

- Copper Mines of Tasmania
- Henty Gold Mine
- Renison Mine
- Rosebery Mine
- Beaconsfield Mine
- Savage River Mine⁴

⁴ Survey results from the QWL or family survey are not included in the survey data presented in the report. However, both the trends and general findings are applicable to Savage River.

Representatives from large⁵ and small contracting companies were also involved. These included.

- Barmenco
- Skilled Engineering
- Silcar
- Pacrim
- Gaspersics
- Williams
- Bonny Fox
- Gunnite
- Diamond Drillers
- Setori
- TPW
- Hahn Electrical
- Matthews
- Brambles
- William Adams
- Chubb

The breakdown of individuals involved is provided in Table 1a

Table 1a Individuals who participated involved in the Review

Individuals involved in the Review	Numbers
Key management, supervisory and technical staff across small and large companies	94
Employees who had quality of working life surveys personally administered to them	598
Family who completed the family impact survey	270
Families involved in more in-depth interviews	20
Other stakeholders (community, unions, peak bodies, government)	36
Total	1018

1.3 Research approach

1.3.1 Methods used

A variety of methods was used to collect information. The aim was to provide as much opportunity for as many stakeholders as possible to have input within the context of the timeframe and budget and to help cross check information. By drawing on both

⁵ One of the larger contracting companies now operates at four of the sites across the industry. Barmenco are now one of, if not the single largest employer in the industry.

qualitative and quantitative data it was possible to better verify insights and findings. We utilised the following methods:

a) Structured interviews

- Structured interviews at each site with management, technical staff, supervisors and employees
- Interviews with key stakeholders including unions, employer organizations, government representatives, families, community organizations and informants.

b) Surveys⁶

- Quality of Working Life (QWL) survey administered to employees, sample of staff, sample of contracting company employees
- Family impact survey (FI) - sample of partners
- OHS exposure survey (on management of hazards such as dust, noise, vibration), completed by each site operator.

c) Other reports

- Objective fatigue modelling of the main rosters across the Tasmanian mining industry was commissioned from the centre for Sleep Research at the University of South Australia
- Assessment of the way that the companies assessed the costs associated with their rosters. This was undertaken by an independent consultant, Mr Mark Treffry.

d) Other material⁷

- Government records and published information was utilised where appropriate.

1.3.2 The key phases of the review

The key phases of the Review involved:

- | | |
|---|--------------------------------|
| • Planning phase | October 2001 – November 2002 |
| • Fieldwork and QWL survey administration | November 2001 –January 2002 |
| • Family impact survey administration | January 2002 – March 2002 |
| • Company exposure standards survey | February 2002 – end March 2002 |
| • Data analysis | April 2002 – June 2002 |
| • Report writing | May – July 2002. |
| • Submission of the final report | August 2002. |

Securing agreement

The Review adopted a consultative approach with the key stakeholders from the outset. It is important to stress that considerable time was spent securing agreement with all of the key stakeholders. This was seen as vital, since without such agreement the legitimacy and acceptance of the findings may have been compromised.

⁶ The generic surveys used can be found in the Appendix 3. A full technical explanation of the response rates, weighting and grouping is included in Appendix 4.

⁷ A full list of other references is contained in Appendix 5

Almost 6 weeks (from the beginning of October 2001) was spent consulting and securing agreement with stakeholders on the following threshold issues:

- The meaning and scope of the terms of reference
- Who would be consulted and under what conditions
- The research approach
- The survey instruments
- The sites that would be included in the review
- An agreement that there would be no public community meetings
- That neither individuals nor individual mine sites would not be identified in any way in the final report
- That the focus of the study would be on the comparison of the rosters, not the comparison of the sites.

The key policy stakeholders identified and consulted in the planning phases of the review included:

- Workplace Standards Tasmania including the Inspectorate
- Tasmania Minerals Councils
- AMMA Tasmania
- Tasmanian Trades and Labour Council
- Individual trade unions including the Tasmanian branches of the Australian Workers Union (AWU), Electrical trade Union (ETU); Australian Manufacturing Workers Union (AMWU)
- Management from each of the six mine sites to be involved in the Review.

In the planning phase of the Review meetings were held with the following stakeholders at the following locations throughout October 2001 until the beginning of November 2001:

Hobart	Workplace Standards Tasmania
Launceston	AMMA and Tasmanian Minerals Councils members
Burnie	WST inspectors
Burnie	Tasmanian Trades and Labour Council and trade unions
Rosebery	Mine site representatives and Tasmanian Minerals Council
Hobart	Tasmanian Minerals Council and WST

1.4 Operational context: main characteristics of working time arrangements in the Tasmanian mining industry

The Review examined arrangements across six sites in detail and up to 19 small and large contract companies that serviced the industry. As noted, the focus of the Review is not on the companies but on the rosters. However, some basic information can help to profile the industry. This is contained in Table 1b below.

Table 1b: basic information about the sites

Site	Location and type	Main product	Main roster arrangement covering the majority of production and maintenance employees*
Copper Mines of Tasmania	Queenstown Community based	Underground Copper	12 hour shifts 56 hour 3 panel rotating roster Different contractor rosters
Henty	North of Queenstown Community based	Underground Gold	12 hour time rotating roster 5 on 5 off
Renison	South of Rosebery Community based	Underground Tin	12 hour shifts 56 hour 3 panel rotating Other rotating rosters (50 hours+) Different contractor rosters
Rosebery	Rosebery Community based	Underground Zinc and lead	12.5 hour shifts 4 on 4 off Different contractor rosters
Beaconsfield	Beaconsfield Community based	Underground gold	Various rotating rosters Some 12 hours, some 10.5 hours Various rotation patterns Different contractor rosters
Savage River	West of Waratah Long distance commuting	Open-cut Magnetite	12 hour even-time rotating roster 4 on 4 off Different contractor rosters

- Five of the 6 sites are underground mines. They all have involve some degree of processing ranging from basic ore crushing facilities through to tertiary processing.
- They are involved in the extraction and processing of a range of minerals including gold, tin, copper, zinc, time, lead, silver and magnetite.
- Employee number range from around 160 core employees through to well over 250. All sites have variously sized contracting companies involved in

maintenance, haulage, development work, underground operation, crushing operations.

- Five of the six sites are located within local communities. Only one sites, Savage River is a long distance commuting site for the majority of employees. It provides accommodation, food and transport
- All of the sites operate continuously 7 days per week/24 hours per day.

1.4.1 Basic description of the working time arrangements in the Tasmanian mining sector

The Tasmanian mining industry is characterised by **both** extended and intensive roster arrangements. The key features are as follows:

- The majority of Tasmanian production employees work a minimum of 12 hour shifts and have average working hours ranging from a minimum of 42 to well over 56 hours per week
- There is a smaller, but significant group that regularly work in excess of 56 and up to 70 hour plus per week. These are mainly managerial and technical staff and employees of smaller contract companies
- The number of consecutive shifts ranged from a minimum of four, through to seven; there were isolated examples of 14 or even 28 shifts in a row
- While there were more than 20 different roster configurations across the sites, we identified four main roster “clusters”. These were the clusters used for analysis in the surveys:

a) 42+ hour even-time rotating roster

(12 hour shifts; 4 crews; 4 on 4 off or 5 on 5 off rotating day/night blocks)

b) 56+ hour uneven time rotating roster

(12 hour shifts; 3 crews; 7 on 3 off, 7 on 4 off rotating day/night blocks)

c) 50 hour+ other uneven time rotating roster

(10.5 and 12 hour shifts; 3 crews; variations of 7 on 3 off, 7 on 4 off rotating)

d) 50 hour+ permanent day shift

(10.5 and 12 hour + day shifts; block of 4 shifts through to 6 consecutive shifts)

1.4.2 How the Tasmanian working time arrangements compare to the rest of the mining industry?

a) Average and maximum weekly hours

Average and maximum weekly hours of work vary markedly between and within the sites in Tasmania. Most production and maintenance employees on rotating shift worked somewhere between an average of 42 hours per week through to 60 hours per week. Maximum hours can exceed 72 hour per week as a result of either heavily compressed shifts during the roster cycle, or because of overtime worked.

The range of hours worked is broadly consistent with the average weekly range reported in the rest of the metalliferous sector in Australia. In 1997 these ranged from around 36 hours through to in excess of 59 hours with an average of 48 hours per week. These trends are presented in table 1b below.

Table 1b Hours of Work (full-time workers, 35+ hrs/week) 1989 – 1997

	1989			1993			1997		
	Mean	Median	Std Dev.	Mean	Median	Std Dev.	Mean	Median	Std Dev.
Mining	46.84	41.00	12.55	48.87	44.00	13.78	51.74	48.00	11.85
Manufacturing	42.11	40.00	6.41	42.96	40.00	7.41	43.50	40.00	7.88
Electricity	38.68	38.00	3.27	39.80	38.00	4.42	41.55	40.00	6.95
Construction	44.16	40.00	8.61	44.89	40.00	9.09	45.50	40.00	9.30
Wholesale	43.26	40.00	7.44	43.59	40.00	7.41	45.05	40.00	8.65
Retail	42.70	40.00	7.00	43.26	40.00	7.89	43.68	40.00	8.28
Transport	44.30	40.00	9.41	45.22	40.00	10.01	46.98	42.00	10.55
Communications	38.56	37.00	3.97	40.18	38.00	5.78	41.71	40.00	7.49
Finance	42.22	40.00	6.78	43.33	40.00	7.89	44.52	40.00	8.56
Government	39.76	38.00	5.54	40.05	38.00	5.43	40.74	40.00	6.16
Community Serv.	42.28	40.00	7.44	42.65	40.00	7.80	43.01	40.00	8.17
Recreation	44.10	40.00	9.70	45.19	40.00	10.54	44.29	40.00	8.83

Source: Unpublished ABS data (ABS *Surveys of Education and Training Experience*, 1989, 1993, 1997). Population is all those working 35 or more hours per week. Note that both the average and median hours have in general increased. The inclusion of the standard deviation provides an indication of the dispersion of hours.

These trends show that the mining industry have the highest industry average and the highest range. They also show that hours across the sector increased between 1989 and 1997 to the tune of around 7 hours per week.

The highest proportion of hours in mining are worked in the metalliferous sectors. Census data from 1991 and 1996 shows that the proportion of employees working more than 41 hours per week increased markedly between this period. By 1996 over 65% of employees in the metalliferous sector were working in excess of 41 hours per week compared to 52.4% of employees in the coal sector.

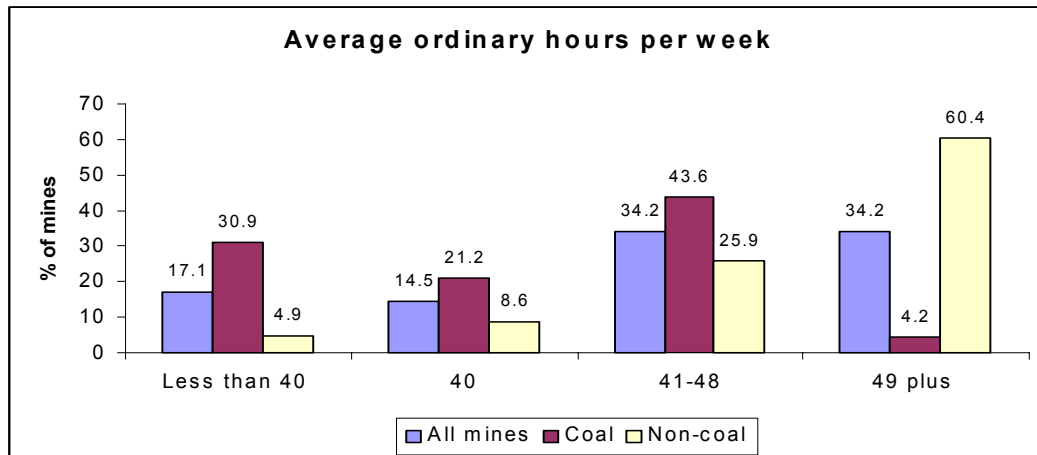
Table 1c Total hours of work in the mining industry 1991 and 1996.

HOURS	INDUSTRY			
	METAL ORE MINING		COAL MINING	
	1991 Census (% of employee)	1996 Census (% of employee)	1991 Census (% of employees)	1996 Census (% of employees)
1-24 hours	3.0	2.9	2.0	2.6
25-34 hours	2.3	1.5	2.9	2.9
35-40 hours	42.7	24.5	52.4	36.3
41 or more hours	51.9	65.3	42.7	52.4

Source: ABS, 1991 & 1996 unpublished census data: Note: Population is Wage and Salary Earners Australia for metallic minerals, NSW and Queensland for coal.

A survey of the mining sector published in 2000 reveals similar trends⁸. Graph 1a below shows that average ordinary hours (ie hours excluding overtime) in the metalliferous sector were significantly higher compared to coal. This is partly because hours in the metals sector are increasingly likely to be annualised whereas in coal overtime hours are paid separately.

Graph 1a Average ordinary hours of work in the coal and non-coal sectors



Source: Heiler, Pickersgill and Briggs, 2000.

Trends at the Tasmanian sites reveal that while the average range of hours is broadly consistent with industry trends, at some sites and companies they exceed industry trends.

In particular, the average of 56 hours per week worked by a large section of the workforce in Tasmania is higher than the weekly average for the rest of the industry and well in excess of average weekly hours for the workforce as a whole (around 41 hours per week).

Production employees

There was a significant difference between the hours worked by production employees across the industry. There were also differences of employment conditions associated with hours such as sick and annual leave.

⁸ Tasmania and the Northern Territory were excluded from this survey.

- Those on the 12 hour **even-time** rosters worked between 42 and 44 hours per week (maximum of 48 hours in 7 day period)
- Those on the **uneven** rosters (12 hour 3 panel rosters) worked between 50+ hours and 56 hours per week (maximum of 72 hours per week in a 7 day period)
- This is thus average difference of 12 – 14 hours per week a difference and an upper limit difference of 24 hours in a week between production employees undertaking basically the same work
- The **longest** average and maximum hours were worked by production employees on the 56 hour rosters and on rosters operated by smaller contracting companies (examples of 60 – 70 hours were reported by individuals).

These longer hours are not being worked on a voluntary basis. Rather, they incorporate the core hours worked by employees as a condition of employment. As such they constitute **compulsory** overtime.

Contracting company hours

The hours worked by employees of many of the smaller contracting companies were sometimes highly unregulated. However, arrangements did vary between companies. Results from fieldwork indicated that some contract employees - especially those who were casual - tended to work whenever they were offered it, due to the insecurity of their employment. Others worked across a number of sites or even worked across a number of industries in order to supplement their hours. These practices could lead to very long and irregular hours.

In addition, there was evidence that some employees were not covered by industrial awards, were not aware if they were covered, or were not receiving conditions to which they were entitled. This included not receiving penalties for overtime, not receiving paid sick leave and annual leave and holiday loadings. The failure to receive these conditions is significant since they potentially compromised the ability of employees to take recuperation time when they need it both on a short term (sick leave) and longer term basis (holidays).

On-call hours

Most production employees on 12 hour shifts did not regularly work overtime. However, some production (mainly maintenance employees) were regularly and irregularly on-call. These on-call arrangements varied between and within sites and companies. At some companies employees were regularly on call, whilst at others they had on-call rosters. The way that on-call hours were arranged and compensated varied markedly. At some sites they were included in the calculation of total hours, were paid, and a minimum break before the next shift was guaranteed. At others employees were required to be on call as part of their normal duties. They were not paid for these additional hours and a minimum break before the next shift was not always guaranteed.

Managerial, supervisory and technical staff hours

Some of the longest average and total hours in the industry were worked by managers, supervisors and technical staff. Supervisors, for example, worked on average 2 hours extra per shift, in order to prepare for the shift and undertake post-shift duties. This could mean an extra 8-12 hours per 7 day period, resulting in an average range of between 56- and 68 hours per week. Supervisors shadowed their crews, so if the crews worked rotating shifts, so did the supervisors. They were also usually on-call and could be called upon to cover for other supervisors

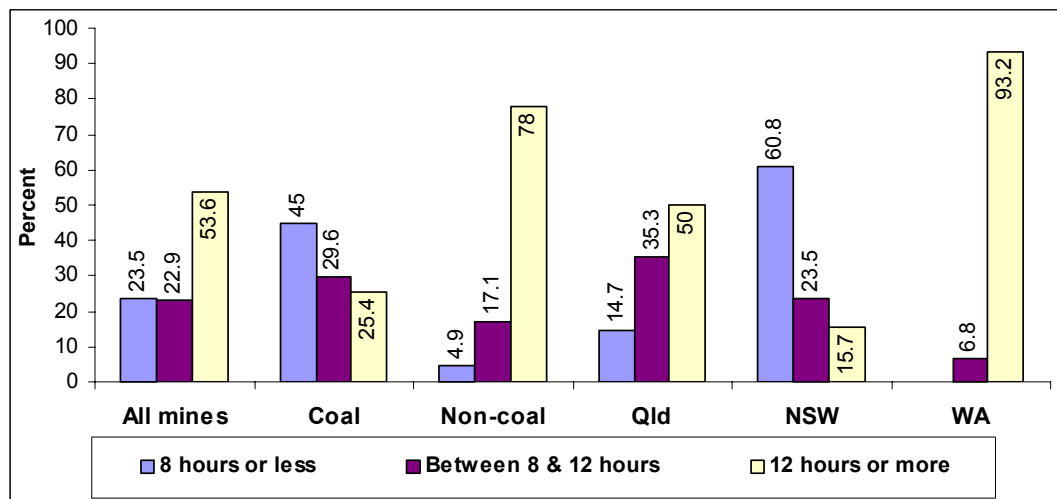
Management and technical staff sometimes worked similarly long hours. They were also often on-call 24 hours per day. Some sites operated with flexible hour's policy for their managerial and technical staff, agreeing to time off for additional hours worked, but others did not. Many of the supervisory, managerial and technical staff interviewed had concerns about the hours worked but were also likelier to be of the view that it "went with the job". Some, however, were very discontented with the very long hours and believed it was damaging their health and personal lives.

b) 12 hour shifts

- The growth of 12 hour shifts in Tasmania is consistent with trends across the rest of the metalliferous and coal mining sectors in Australia.
- There has been a significant increase in 12 hour shifts in the production and maintenance areas across the industry as a whole. They are still much more common in the metalliferous sector than they are in the coal sector.
- As discussed in Part 2 of the report, the principle behind 12 hour shifts is that they are worked within a "compressed regime". In other words, they are designed to be worked within a standard range of hours. In this way longer shifts are worked, but fewer shifts are worked overall.

Graph 1b below shows results from the surveys of rostering trends cited previously. It shows that 12 hour shifts are more common in the metalliferous sector than in the coal sector. They are more common in Western Australia than other states. In Western Australia over 9 out of 10 sites have 12 hour shifts as their main arrangements. Many of these sites are long distance commuting sites.

Graph 1b Standard shift lengths in production areas



Source: Heiler et al, 2000

- In Tasmania, every site has 12 hour shifts as their main arrangement. Half of them are worked as compressed shifts and the other half work them within an extended hours regime

The struggle for time

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- The fact that 12 hour rotating shifts are worked at every metalliferous site in Tasmania means that 12 hour shifts now constitute a “de facto” condition of employment within the industry for all employees.

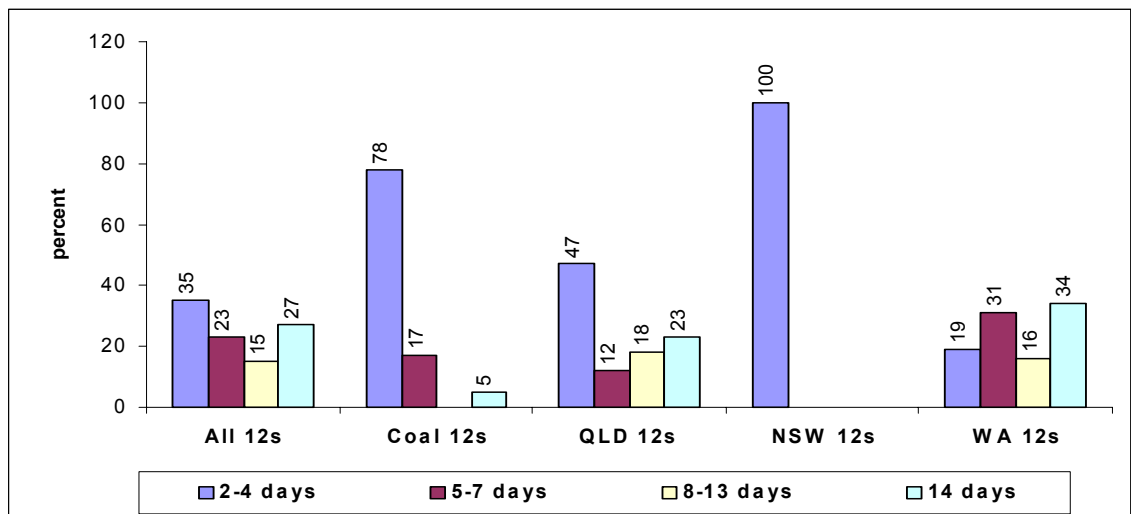
c) Roster patterns

The maximum number of shifts and the pattern of rotation varied markedly between and within the sites in Tasmania.

- At three of the six sites 12 hour shifts were mainly worked as “even-time” rosters. This involved 4 or 5 12 hour shifts (day and/or night shifts) consecutively followed by a block of 4 days off. These were worked within a standard hours regime of around 42-44 average hours per week
- At three sites, 12 hour shifts were worked mainly within an uneven regime where 7 shifts were worked (with a 24 hour break after 3 or 4 shifts) and then followed by 3 or 4 days off. Hours here ranged from around 50 through to in excess of 56 hours
- There were isolated examples of some of the smaller contracting companies where employees worked a 7 shift on/7 shift off arrangements. The most intensive arrangement reported was 28 days on/7 days off.

Figure 1c below shows the maximum number of 12 shifts that could be worked consecutively across the rest of the mining industry.

Figure 1c Maximum number of consecutive shifts 12 hour sites (production areas)



Source: Heiler et al 2000

Trends show that 12 hour shifts are worked under different configurations across the mining industry. In NSW 12 hour shifts are worked predominantly within a controlled “compressed”, regime; consecutive shifts do not typically exceed 4. However, in other states, 12 hour shifts are being worked under different configurations. Much longer periods of compression exist in Western Australia and parts of Queensland, usually in more isolated long distance commuting sites.

- In Tasmania, the emergence of 12 hour “even-time” in community based settings (as they are worked at three of the sites) is consistent with trends elsewhere in the mining industry
- However, the emergence of the more intensive “uneven-time” rosters (where consecutive shifts exceed 4 in a row) in community based settings is more unusual.
- These rosters are more reminiscent of arrangements in isolated fly-in-fly-out sites in Western Australia and Queensland, where employees often commute very long distances and are provided with full accommodation, food and transport. This is not the case in Tasmania.

d) Have these shifts been introduced with the agreement and support of employees?

Interviews conducted with management and key stakeholders revealed that there were mixed opinions about whether these arrangements had been agreed to by employees or had been imposed by management. The Review found the situation to be mixed.

- At some of the sites, among core (not contracting) employees rostering arrangements had been introduced by consultation and with agreement. Historically, at one site at least, the decision to change from 8 hour shifts to 12 hour shifts had been by agreement
- At some sites shift length is determined by management, but employees have some input about the roster configuration. Sometimes this has been decided by agreement, at others management has had the final decisions or has provided the workforce with limited choices between a narrow range of options
- At some sites the roster has been changed at the same time as major workforce restructuring has taken place. For example, the workforce may have been replaced and along with a new workforce has been new roster configurations. Whilst employees may have decided to accept employment, the roster has been part of the condition of employment
- Some sites determine roster arrangements for contractors and make the rosters part of the condition of the contract
- At some sites contractors determine their own arrangements, sometimes in consultation with their workforce.

Thus the situation is very mixed, with modes of negotiation ranging from consultation and agreement with the workforce, consultation but no agreement, and no consultation and no agreement with the workforce. The claim by many managers and employer bodies that the rosters were being worked voluntarily by the majority of employees was not strongly substantiated by the evidence.

e) What does the future hold?

The Review found a high level of support for the more intensive rosters among many managers of both operating companies and contracting companies. They were perceived as more efficient, more cost effective and – given the financial pressures reported by many companies – their expansion appears possible if not likely. This likelihood is increased because they are favoured by some of the contracting companies that are competing for business within the industry. For these companies there are perceived operating efficiencies for them to have the same rosters across a number of sites so that employees can be moved more easily between sites. Moreover, many managers showed a preparedness to consider these options in the longer term if they could be shown to impact positively on the bottom line. Also, some managers were firmly of the belief that many employees actually favoured these rosters because the employees could make more money in the shorter term.

Summary

- The range of average weekly hours is broadly consistent with the average range reported in the rest of the metalliferous sector in Australia
- However, sites which average 56 hours per week or more are over the average for the metalliferous industry (52) and are well in excess of average hours for all full-time workers in Australia (of around 41 per week)
- Most of these longer hours are not being worked as voluntary overtime but constitute the core hours worked by employees as a condition of employment. As such they constitute **compulsory** overtime
- 12 hour shifts are worked at every metalliferous site in Tasmania which means that they now constitute a “de facto” condition of employment within the industry.
- At some sites 12 hour shifts have been introduced by agreement with the workforce, but at other sites there has been no negotiation over the shift length or the roster. At other sites they are a non-negotiable condition of employment

In summary, the Review found that there is the emergence of roster patterns in community based setting that are more in keeping with remote mine sites in isolated areas of Australia. This is despite the fact that the majority of employees and contractors (76%) live permanently in the local communities.

The Review also found that there is a possibility that these more intensive rosters may continue to expand, or even become the norm across the industry in Tasmania.