

Australian Minerals Industry Safety & Health

SAFETY SURVEY REPORT

FOR 1 JULY 2000 –
30 JUNE 2001

SUMMARY

- Three (3) fatalities were recorded in the fourth quarter of the 2000-2001 reporting year. This brings the number of deaths in the minerals industry (including extractives) to fourteen for the 2000-2001 reporting year.
- All three fatalities for the quarter occurred in metalliferous mines – open-cut in WA (1) and underground in Tasmania (2).
- More than a third of the reporting year's fatalities (five) occurred in WA; Tasmania experienced three fatalities compared to none in the previous year (1999-2000); New South Wales also experienced three fatalities, Queensland – two and Victoria – one.
- The open-cut coal and exploration sectors were fatality-free for the reporting year.
- The indicative total industry LTIFR for 2000-2001 is estimated at 8, which is lower than the rate of 11 as reported in the *1999-2000 Safety and Health Performance Report*.

Note: This estimate is likely to change once official figures are reported and published in the Council's comprehensive annual Safety and Health Performance Report of the Australian Minerals Industry 2000-2001.

SAFETY NEWS

2001 NATIONAL SAFETY AND HEALTH INNOVATION AWARDS

The National Safety and Health Innovation Awards are now in their third year and continue to foster the development of innovative solutions to everyday safety and health matters.

The Innovation Awards are an important part of the minerals industry's drive to eliminate fatalities, injuries and diseases. They offer an opportunity to recognise the excellence and innovation already being achieved by the industry and to spread the word on these improvements so that the whole industry can benefit from the learnings.

The national award recipients are selected from State Minerals Councils/Chambers' award recipients.

This year's awards were held in conjunction with the Council's Safety and Health Conference on effective management of catastrophic risk at the Stamford Grand in Adelaide in June.

This year's winner was MIM Holdings' Oaky North Underground Mine. The award celebrates an innovative load indicator plate for fibreglass rib

bolts. This innovative device responds to a high-consequence injury issue for the industry. Designed to avoid the bolts being twisted and shattered, the load indicator plate is a concave polypropylene washer which visibly flattens when too much load is applied to the bolt.

Two other innovations were recognised with high commendations at the presentation ceremony. The first was awarded to Camberwell Coal for its strut tensioning adapter tool which was developed to prevent injuries occurring when the tooling slips during tensioning of the front strut retaining bolts in Caterpillar 789 trucks. The second was awarded to Coal & Allied's Mt Thorley operation for its bottom track roller change-out tool which consists of a forklift attachment with two components – a cradle that supports the track roller during removal and a tool that fits around the outside axle of the new track roller for easy replacement.

A booklet profiling each of the innovations nominated for the 2001 Awards will be released shortly and made available on the Council's web site (www.minerals.org.au).

*“The state
of mind
where we are
constantly
aware of the
possibility
of injury
and act
accordingly
at all times.”*

Minerals Council
of Australia
Safety Awareness



**MINERALS
COUNCIL**

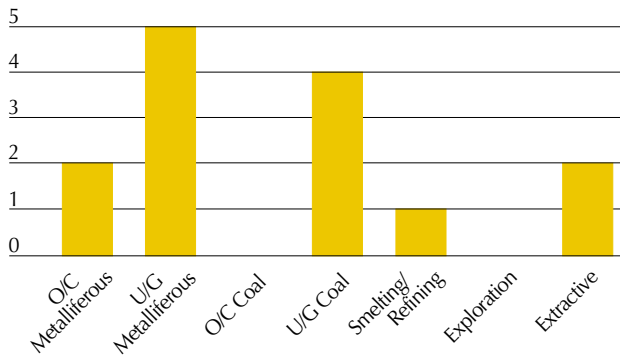
OF AUSTRALIA
ACN 008 455 141
ABN 21 191 309 229

FATALITIES

Of the fourteen fatalities which have occurred in the 2000-2001 reporting year:

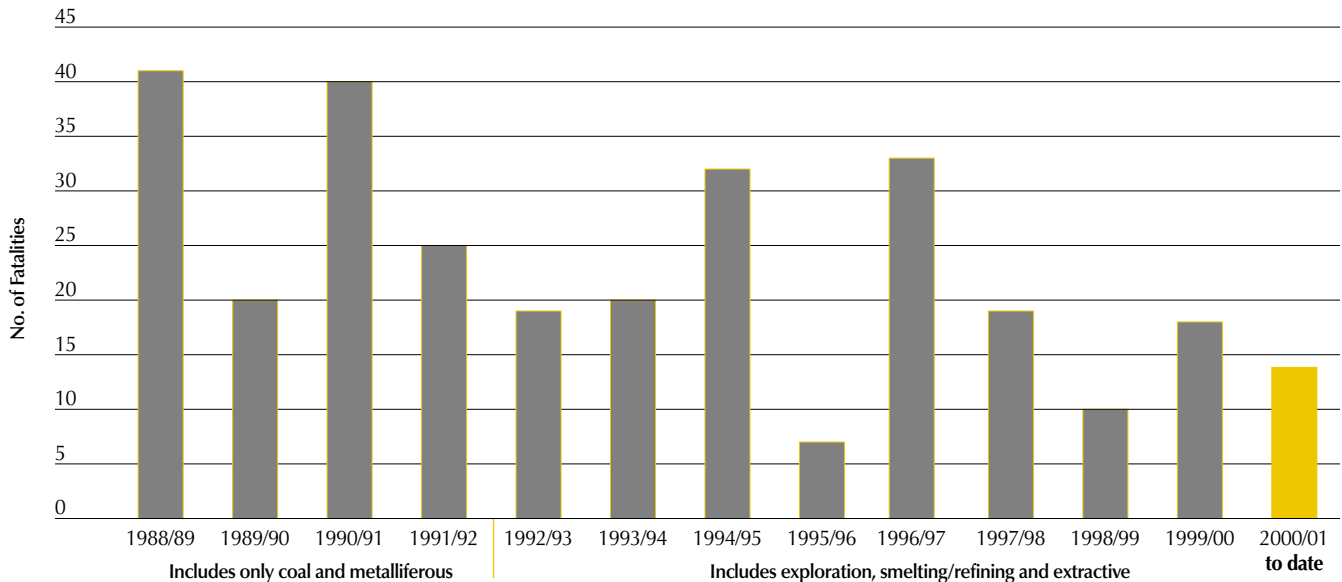
- five occurred in underground metalliferous;
- two in open-cut metalliferous;
- four in underground coal;
- two in extractive quarries; and
- one in the smelting sector (of an underground metalliferous mine)

Fatalities by Sector 1 July 2000 – 30 June 2001

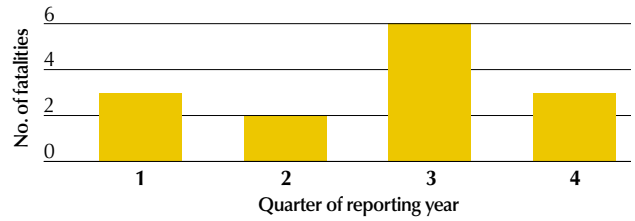


Fatalities 1988-89 – 30 June 2001

Information contained in the chart prior to 1992 is an estimation only.



2000-2001 Fatalities by quarter



Note: in the 1999-2000 reporting year, there were 7 fatalities in the fourth quarter (highest) and 3 fatalities in the third quarter (lowest).

1999-2000 Fatalities by State



DESCRIPTION OF MINERALS INDUSTRY FATALITIES from 1 April – 30 June 2001 only

There have been three fatalities this quarter.

Western Australia – OPEN-CUT METALLIFEROUS

Mr Phillip Steel, a 43-year-old employed by Roche Mining at WMC Resources' Mt Keith nickel mine died after the bulldozer he was driving fell about 100 metres at the Mt Keith nickel mine.

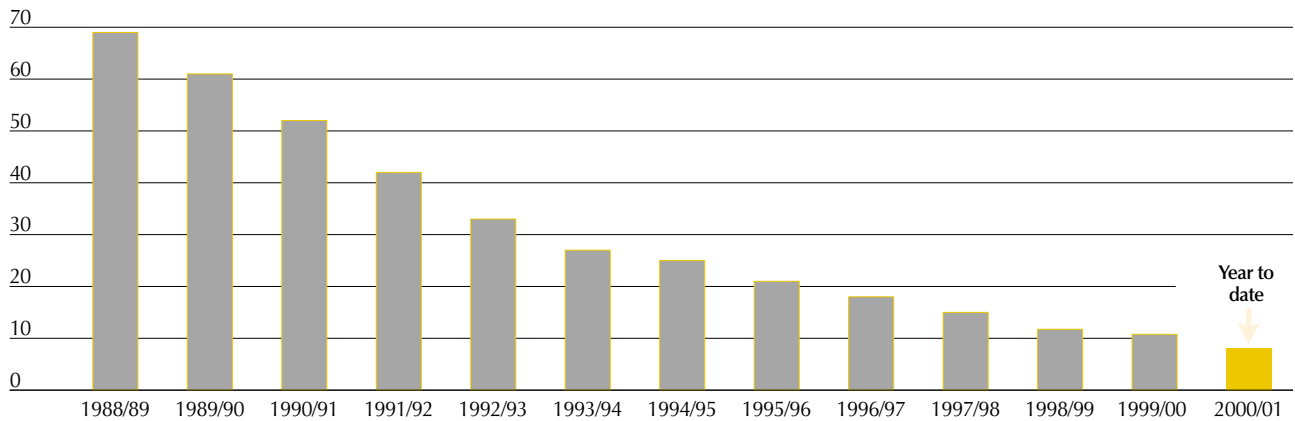
Tasmania – UNDERGROUND METALLIFEROUS

Two men, Messrs Jarrod Jones and Matthew Lister, both aged in their 20's and employed by Murchison United at its Renison Bell tin mine, died after a rockfall crushed the machine on which they were working.

In addition, there was one mining-related fatality. On 6 June 2001, Mr Alastair McClure, a Rio Tinto employee, was fatally injured when travelling as a passenger from a minesite to an airport in the Northern Territory.

LOST TIME INJURY FREQUENCY RATE

Total Lost Time Injury Frequency Rate 1988-89 – 30 June 2001

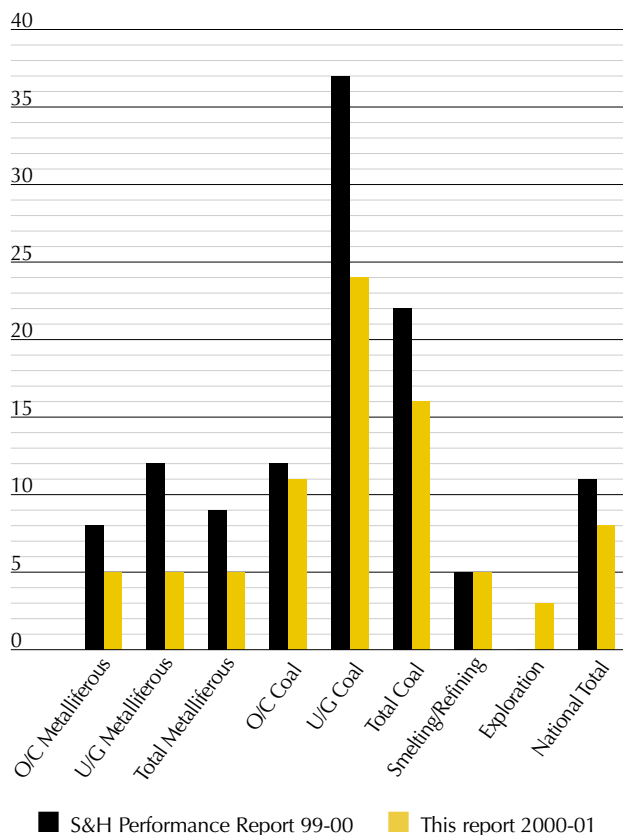


The indicative total industry Lost Time Injury Frequency Rate (LTIFR) for 2000-01 is estimated at eight. This compares favourably with the LTIFR of 11 for the minerals industry in the previous year.

When compared to the 1999-2000 Safety & Health Performance Report, this year's estimated LTIFR figures show an improvement in every sector except smelting/refining (static at five). No such comparison is possible for the exploration sector as data was not reported in the annual 1999-2000 Performance Report.

Recognising the limitations of the survey methodology, the Council would not wish to draw any conclusions based on this LTIFR data alone.

LTIFR By Sector 1 July 2000 – 30 June 2001

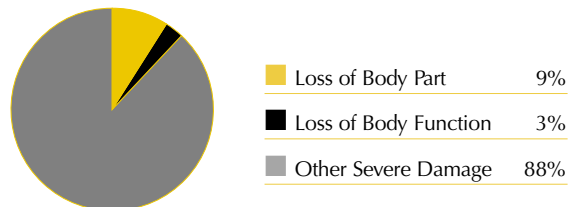


MOST SEVERE INJURIES

Thirty-two (32) severe injuries were reported for the fourth quarter, bringing the total for the reporting year to 122.

Survey responses indicated that there were three losses of body parts (all thumb/finger tips); one loss of body function (consciousness); and twenty-eight other severe damage which comprised fractures (14), dislocation (1), crush injuries (5), burns (2) and six others (eg foreign body to eyes, back injury, torn Achilles tendon).

Most Severe (Single Traumatic Event) Injuries – this quarter



MEDICAL TREATMENT AND LOST TIME INJURIES GREATER THAN 10 DAYS

For the fourth quarter of 2000-2001, survey responses show a total of 872 medical treatment injuries. There were 43 LTIs greater than 10 days recorded which is similar to the figures of 35, 47 and 36 for the first three quarters respectively.

NB: Not all companies record medical treatment injuries and LTIs greater than 10 days. In order to improve reporting and broaden outcome measures, companies are encouraged to record medical treatment injuries if they do not already do so.

SAFETY MILESTONES

The Council recognises that, despite the continuation of fatalities and injuries in the industry, there are a number of safety success stories which provide significant opportunities for industry participants to benchmark their own operations and to exchange ideas and information on safety and health issues.

This report features the winner of the 2001 National Safety and Health Innovation Awards mentioned earlier in this publication.

Innovation: *Development of the Load Indicator Plate*

Company:

**MIM HOLDINGS –
OAKY NORTH UNDERGROUND MINE (QLD)**

Description:

Following an incident in late 1999 when a 1.5 tonne slab of rib coal fell and injured an employee, the subsequent incident investigation identified that the cuttable rib bolts were being damaged during installation. Further testing and investigation revealed that during the installation process the bolts were being over-torqued and twisted along their axis resulting in shattering of the fibreglass along the length of the bolt.

A rib support review workshop was convened and potential control options identified, the most significant of which was the development of the concave-shaped load indicator plate. The plate combines the cost and performance benefits of polypropylene with visual indication to the operator as the plate is being loaded during bolt installation.

A new rib support system was developed for the mine and incorporated a number of the control measures identified during the review workshop. The use of the rib support system significantly reduces the possibility for a fibreglass rib bolt

twisting beyond its shank torque capacity during the installation process. Now operators have a visual indication: as tension is applied to the bolt, the concave-shaped rib plate starts to flatten.

Benefits/Effects:

- A visual indication of load as tension is applied to the bolt.
- Avoids unobserved failure of bolts.
- Complements all rib bolting systems in use throughout the mining industry, particularly where the bolts have been point anchored.

Practicality:

- Supplier provides load indicator plates at the same cost as original flat plate design.
- Further savings will be afforded through significantly reducing the backbye bolting work required to replace the rib bolts damaged during installation.
- The plate can be used as a key component in thrust-bolting applications.

Information Exchange:

- Applicable to other underground coal mines which install fibreglass rib bolts to provide rib support.

Innovation and Originality:

- A simple innovation to a high-consequence injury issue for the industry.

Further information:

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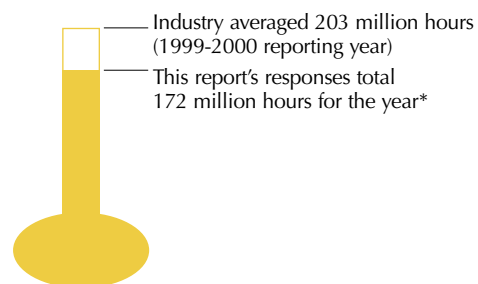
METHODOLOGY OF QUARTERLY SURVEY

The Minerals Council would like to thank all reporting companies, State/Territory Minerals Councils/Chambers, the Joint Coal Board, the Australian Aluminium Council and State/Territory mines departments who supplied information for this report. Given the short timeframe within which the data has been collected and collated, the data incorporated is not necessarily reported on a consistent basis.

The Council is also aware that, for some fatalities, the circumstances at the time of the fatal incident are unclear, so that a decision cannot be made immediately as to whether the death is a workplace related fatality or is due to natural causes. In these cases, the Council is guided by the approach taken by the relevant State government authority. Any revisions in fatalities will be included in future reports as appropriate.

Note: The Joint Coal Board (JCB) advises that the data made available to the Minerals Council of Australia is not comprehensive and represents about 90 per cent of the total collection. The Minerals Council thanks the JCB for releasing this data and advises readers to take account of this factor when drawing any conclusions based on this data.

Report Coverage based on exposure hours



* When the exposure hours for this reporting year (2000-01) are compared with official industry exposure hours for 1999-2000, a figure of 84% coverage in this report is indicated. However, this figure may overestimate the report's coverage.

This document can be found on the Council's website:
www.minerals.org.au (click on *Safety and Health*)

Note to readers: If you would like future issues of this quarterly document emailed to you (as a PDF document), please contact Del Da Costa at the Minerals Council of Australia on 02 6279 3644, fax 02 6279 3699 or by email d.dacosta@minerals.org.au