



## Significant Incident Report No. 232

**Subject:** Underground operator collapses underground - fatal accident

**Date:** 30 November 2015

### Summary of incident

*Note: The Department of Mines and Petroleum's investigation is ongoing. The information contained in this significant incident report is based on materials received, knowledge and understanding at the time of writing.*

A 28-year-old jumbo offsider collapsed while working underground on night shift and was taken to the surface. He initially received treatment from the mine medical staff and then from the Royal Flying Doctor Service but passed away during the early hours of the next day.

### Direct causes

The underground operator was undertaking heavy physical work in hot and humid conditions.

### Contributory causes

The investigation is ongoing and contributory causes are yet to be confirmed.

### Actions required

The following actions are recommended to prevent and manage heat stress.

#### **Employers**

Review operating procedures in accordance with the requirements of r. 9.15 of the Mines Safety and Inspection Regulations 1995. Recommended actions include:

- not exposing employees to heat so far as is practicable
- isolating sources of heat, so far as is practicable, through shielding, containment and remote handling techniques
- providing engineering controls, such as ventilation, that deliver an adequate volume, velocity and quality of air to achieve a healthy atmosphere and reduce heat loads
- adopting safe work practices and appropriate administrative procedures such as job rotation
- providing training to workers on measures to be taken to avoid any harmful effects from heat, and implementing appropriate workplace environmental controls and monitoring
- if other means of controlling exposure are not practicable or adequate, providing suitable personal protective equipment.

## ***Managers and supervisors***

- Ensure workers are trained to recognise the symptoms of heat stress.
- Provide detailed safe work practices that identify the hazards and controls for working in hot and humid conditions and ensure controls are implemented.
- If the wet bulb temperature exceeds 25°C, an air velocity of not less than 0.5 metres per second must be provided for underground workplaces or in a tunnel under a surge stockpile.
- Seek urgent medical treatment for anyone suspected of suffering heat-related illness.

## ***Workers***

- Understand the risks and symptoms of heat stress, and report any signs of heat stress to a supervisor.
- Ensure appropriate quantities of water are consumed to remain hydrated.

## **Further information**

- Resources Safety online guidance about heat and thermal stress management, [www.dmp.wa.gov.au/Safety/Guidance-about-heat-and-thermal-6968.aspx](http://www.dmp.wa.gov.au/Safety/Guidance-about-heat-and-thermal-6968.aspx)
- Resources Safety publications, [www.dmp.wa.gov.au/Safety/Mining-Safety-publications-16162.aspx](http://www.dmp.wa.gov.au/Safety/Mining-Safety-publications-16162.aspx)

*Working in hot processes - mine safety matters pamphlet,*  
[www.dmp.wa.gov.au/Documents/Safety/MSH\\_MSM\\_P\\_WorkingHotProcesses.pdf](http://www.dmp.wa.gov.au/Documents/Safety/MSH_MSM_P_WorkingHotProcesses.pdf)

*Heat stress - toolbox presentation,*  
[www.dmp.wa.gov.au/Documents/Safety/MSH\\_TB\\_HeatStress.ppt](http://www.dmp.wa.gov.au/Documents/Safety/MSH_TB_HeatStress.ppt)

*Management and prevention of heat stress - guideline,*  
[www.dmp.wa.gov.au/Documents/Safety/MSH\\_G\\_ManagementAndPreventionOfHeatStress.pdf](http://www.dmp.wa.gov.au/Documents/Safety/MSH_G_ManagementAndPreventionOfHeatStress.pdf)

- US Occupational Safety and Health Administration,  
[https://www.osha.gov/OshDoc/data\\_Hurricane\\_Facts/heat\\_stress.pdf](https://www.osha.gov/OshDoc/data_Hurricane_Facts/heat_stress.pdf)

*Protecting workers from the effects of heat - OSH factsheet*

This Significant Incident Report was approved for release by the State Mining Engineer on 30 November 2015