



Mines Safety Bulletin No. 118

Subject: Working alone with corrosive substances - potential loss of communications

Date: 11 February 2015

Background

Many activities at a mine are undertaken by a person where verbal or visual communication with other employees is not possible. Under these circumstances the person is considered to be working alone, and the potential risk of an existing hazard is increased — possibly to a level necessitating extra precautions.

A number of incidents involving people working alone with corrosive substances have occurred in the past few years. Recently, there was a serious incident involving a process operator who became separated from his two-way radio, thereby removing the only means by which he could contact emergency services for assistance.

Summary of hazard

Operators working with or near large volumes of corrosive substances are at risk of being engulfed should a loss-of-containment event occur. During such an event, they may lose communication and an alternative means of contact may not be available.

Contributory factors

Any of the following could affect communication procedures that rely on two-way radios:

- the initial rush of solution unbalances the operator and separates them from their two-way radio
- the operator removes contaminated clothing and, inadvertently, their two-way radio
- the operator's vision is impaired by corrosive solution entering their eyes as they remove contaminated clothing
- the operator is, for a long period, unwilling to leave the safety shower.

In these scenarios, the operator cannot use their two-way radio to contact emergency services.

Actions required

The manager at a mine is responsible for ensuring that the risks associated with any person working alone are evaluated, and control measures are implemented to minimise the risks. Supervisors and those working alone should ensure that:

- they are aware of the high-risk hazards and activities in their work area

- all practicable measures are taken to control the hazards and minimize the risks associated with their work
- they are familiar with the appropriate safety equipment and its location (e.g. emergency safety showers, exits)
- the agreed communications strategy is adhered to.

Where a person working alone is injured in the workplace, there should be measures in place to minimise the time that the injured person remains unattended. These measures may include:

- supervisors or other competent persons visiting the workplace at a frequency deemed necessary based on a formal risk assessment
- the person working alone making contact with another worker at frequent pre-arranged intervals
- video surveillance of work areas
- alarming all safety showers that are likely to be used in an incident scenario where an operator is unable to use their two-way radio
- providing a personal duress alarm system, where practicable.

Note: Regulation 10.5 of the Mines Safety and Inspection Regulations 1995 has specific requirements for people working alone while underground.

Further information

- www.dmp.wa.gov.au/8058.aspx#6908

NSW Department of Mineral Resources, 2002, Minerals Industry Safety Handbook, Edition 1, Section 3.2 - People Working Alone

- www.commerce.wa.gov.au/worksafe/frequently-asked-questions-working-alone

Frequently asked questions – Working alone

- www.csmf.net.au/products-for-sale

Commonwealth Safety Management Forum, 2009, Out there! National guidelines for working alone, overseas or in a remote locality (second edition): CSMF, Canberra, 42 pp.

- www.comcare.gov.au/Forms_and_Publications

Commonwealth of Australia, 2013, Comcare's guide to remote or isolated work: Comcare, Canberra, 30 pp.

- www.hse.gov.uk/toolbox/workers/lone.htm

Lone workers

This Mines Safety Bulletin was approved for release by the State Mining Engineer on 11 February 2015