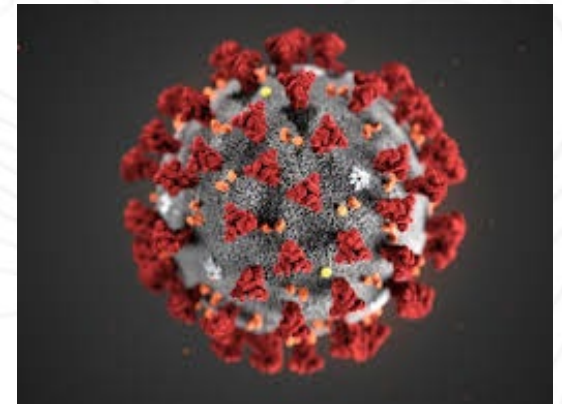


Worker Health



What COVID has taught us

- **Need to be vigilant with health and hygiene measures.**
- **Plan for absenteeism.**
- **Risk assess worker health issues and develop appropriate controls.**



What risks to worker health are we talking about?

Regulation 108

- Noise
- Vibration
- Dust
- Diesel particulates
- Fumes
- Temperature
- Manual handling and lifting
- Psychosocial hazards
- Biological hazards



Any other hazard that may adversely affect the health of mine workers who work at the mining operation, such as:

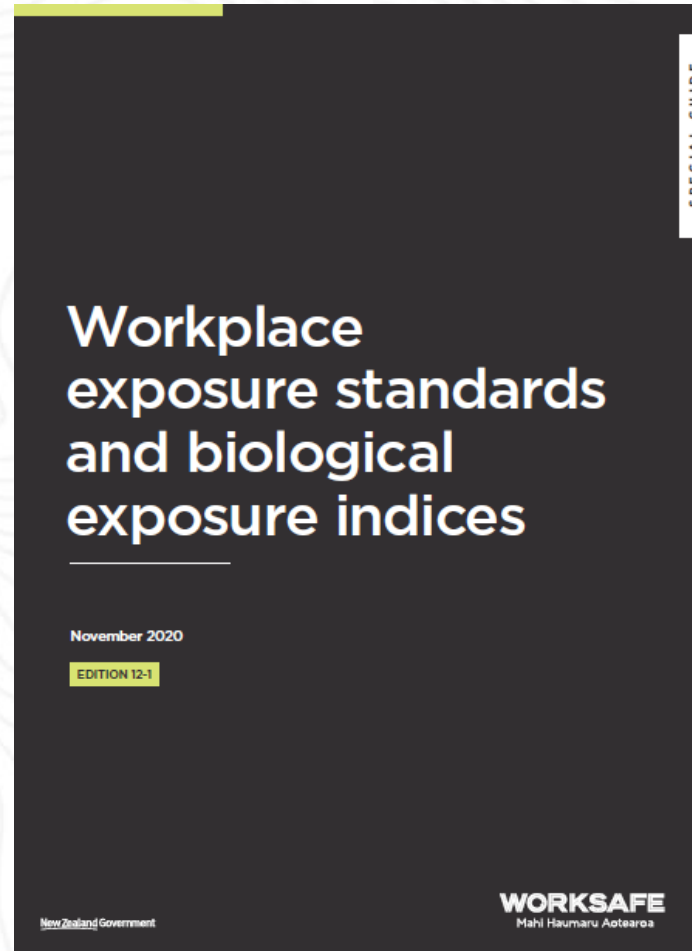
- hazardous substances (e.g. solvents, processing chemicals)
- hazardous fauna (e.g. wasps)
- pressure injection injuries
- heavy metals



Risk assessments need to consider both effects



Worker Exposure to hazardous substances




WES and BEI set by WorkSafe

- **Established based on health impacts only.**
- **Do not consider ability to measure or ability of sites to achieve standards.**
- **Not called up or mandated in any legislation, with exception of asbestos.**
- **Not enforceable by Inspectors.**

Sites should work toward trying to comply over time and as technology improves.

MinEx guidance

- RCS
- Diesel emissions
- Arsenic
- Chromium VI compounds
- Sulphur Dioxide



Guidance on Worker Exposure to Hazardous Substances in the Extractives Sector

April 2021


Introduction

Healthy workers are essential to the success of mining, quarrying and tunnelling companies. Workforce protection should be built on:

- ensuring that a workplace culture of safety & health is embraced by all;
- recognizing that occupational illnesses are preventable;
- ensuring that occurrences of any occupational disease do not reoccur; and
- promoting the setting and implementation of a consistent set of standards to prevent occupational illness or injury.

Hazards, such as dust and toxic chemicals in the workplace, need to be identified, and the risks associated with them from any possible exposure needs to be adequately controlled.

The pro-active control of hazards is a well-recognised feature of modern extractive operations and this document gives guidance on good practice management of some of the significant worker exposure hazards in the sector.



WorkSafe NZ publish Workplace Exposure Standards (WES) and Biological Exposure Indices (BEI) annually. It's important to note that the WES and BEIs in WorkSafe's special guide 1 are guidance values - not prescribed standards. The values proposed are also considered to be health-based WES which means they are based on minimising health risk and don't take into consideration practicability of achieving or measuring the value.

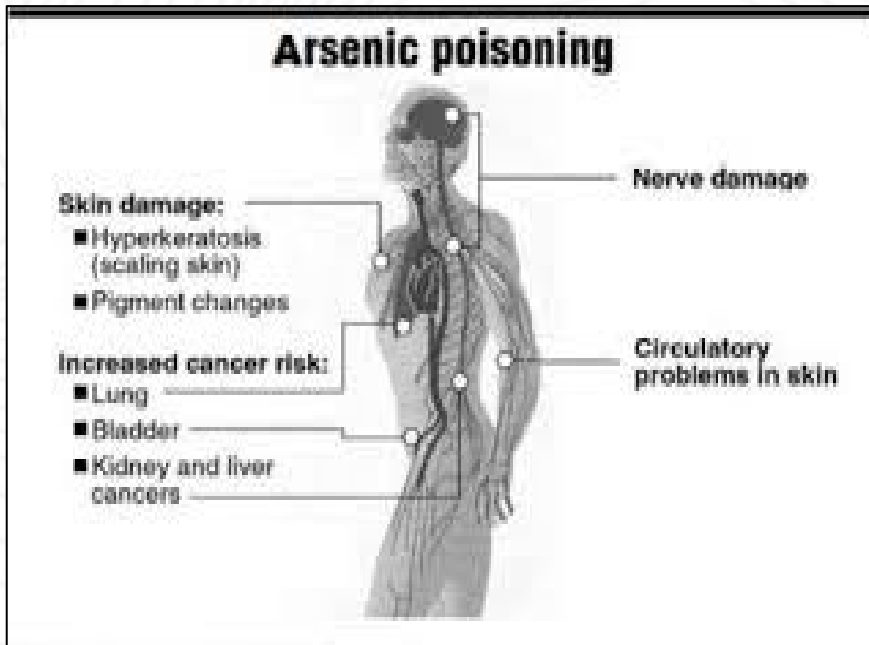
This guide has been prepared using best practice WES and BEI from around the world and where practicable WorkSafe WES and BEI targets should be applied, as generally they will give greater levels of worker protection.

Arsenic

- **BEI should not exceed 35 ug/l (WorkSafe level 15 ug/l)**
- **Natural levels in urine impacted by smoking and consumption of seafood**
- **Accumulates in body over working week**
- **Concern is increased risk of cancer to the skin and lungs**



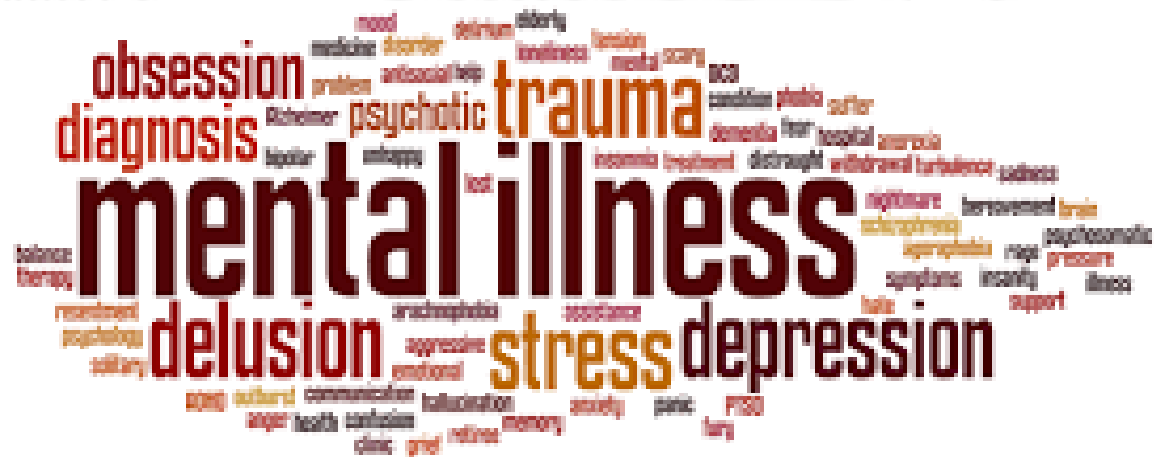
Controls



- Workers should be tested at start and end of week to detect build up from work activities.
- Urine test, as well as skin and neurological checks.
- Affected workers should be removed from the workplace and given medical treatment.

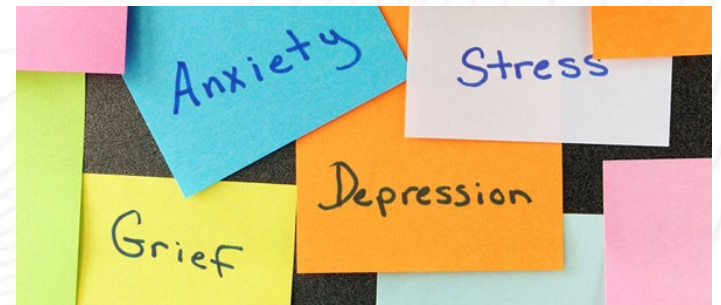
Biological half-life of inorganic arsenic is 1-3 days

Mental illness



Mental illness

- **Over 600 die from suicide each year (majority men).**
- **Most commonly anxiety and depression.**
- **Workers suffering anxiety or depression will take on average 3 - 4 days extra sick leave per month than other workers.**
- **Need to identify the signs.**
- **Have support mechanisms.**



Behaviour demonstrated by workers suffering mental illness

- **Turning up to work late**
- **Finding it hard to meet reasonable deadlines**
- **Withdrawing from colleagues**
- **Relying on alcohol and sedatives**
- **Taking excessive sick leave**
- **Having difficulty concentrating or managing multiple demands**

First steps in dealing with a mental health issue

- **If an employer or employee thinks there is a mental health issue, it should be raised as soon as possible.**
- **Do something - Ignoring an issue and hoping it will go away, can lead to bigger problems later.**
- **Provide an open, supportive environment.**
- **Don't jump to conclusions. Any decisions should be made fairly and consistently. Gather information and think before acting.**
- **Treat each other with respect and consideration, and deal with issues in a confidential manner.**
- **It may help to have a third-party present as a witness when an issue is discussed, to prevent misunderstandings.**

Employee Assistance Programme (EAP)

An Employee Assistance Program (EAP) is a free and confidential counselling service offered by employers to their employees to support their well-being in the workplace and in their personal lives.

- Confidential advice
- Independent investigations
- Counselling services



If you are not confident dealing with these issues it may help to engage an expert.

Recreational drugs



Research project University of Canterbury

The impact of the legalisation of marijuana on health and safety processes for the New Zealand construction industry.

Caitlin Bowden and Glenn Gommans

Summary of feedback from participants

- *“looking at Canada where it has been legal four-five years, there has not been a significant change in people using it. There was an initial spike, but those numbers returned to pre-legalisation numbers.”*
- *“There needs to be a pragmatic test to indicate an impairment level that allows an employee to still function and clarification on how the limit works for an office compared to someone working on machinery.”*
- *“older managers have ideas about marijuana that would require a balance between what the organisation’s policy is and what their personal opinion is.”*

Findings and recommendations

- ***Drug testing*** – No evidence of relationship between testing and reduction in H&S incidents. Testing detects presence of drugs but not necessarily impairment.
- ***Zero tolerance*** – While most companies apply this, there is a variety of interpretations of what this means.
- ***Limited education*** – Little education around the effects of marijuana on work performance, and impacts on others.

What you need to do

- **Concentrate on impairment, not the drug.**
- **Educate your workers on the impacts of drug use (legal or illegal) on them and their workmates.**
- **Identify worker behavioral changes.**
- **Take action as required and promptly.**

“IF IT LOOKS LIKE A DUCK, IT PROBABLY IS A DUCK”

How do you check?

- **Random testing - don't get bogged down in process**
- **Entry questionnaire**
- **Reporting of medication, illness**
- **Behaviour observation**



Observation and supervision are the key

- You know your people, their background, culture, out of work activities.
- Open, consultative environment will enhance communication.
- Encourage positive peer pressure.
- Supervise, supervise, supervise!!!



Where to get help

- ***Regulators***
- ***Employee Assistance specialists***
- ***Training (MinEx)***
- ***IOQ***





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