

# Health Indices for the NSW mining & extractives industry

FACTSHEET

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## Noise management

### Introduction

It is important that potential noise hazards are identified and that everyone understands the nature and sources of risk so that informed decisions can be made to eliminate or control them.

### Lead indicators

The identification and use of both lead and (to a lesser extent) lag health indicators, are useful means to achieve this. Leading indicators are good management practice and so should form the basis of any monitoring and evaluation activities.

### How to use this factsheet

Good practice leading indicator activities for the management of noise are presented overleaf. The approach promotes the use of OHS management system inputs rather than health exposure outcomes to help ensure that appropriate and pro-active steps towards health management are taken. However, some activities may also provide health exposure data that can be used as a leading performance indicator (e.g. personal / exposure monitoring).

The activities are grouped according to 'stages' of system maturity and can be used as a guide to developing and implementing a continuous improvement program.

To demonstrate a progression through the stages, an organisation should be able to demonstrate that it is carrying out all the activities listed within the previous stage.

### Why control noise?

Hazardous noise poses a serious risk to the health and safety of those who are exposed to it regularly, throughout their working life.

### Risks from hazardous noise levels

'Hazardous noise can destroy the ability to hear clearly and may also put stress on other parts of the body, including the cardiovascular system. It can also make hearing sounds necessary for working safely, such as instructions or warning signals, more difficult and therefore can contribute to accidents.'  
(SWA Code of Practice – *Managing noise and preventing hearing loss at work*, 2010).

Ensuring that noise in your workplace is not at a hazardous level and / or that workers are not exceeding the noise exposure standard during the course of their shift, is vital in keeping people healthy and safe at work. The SWA Code of Practice – *Managing noise and preventing hearing loss at work (2010)*, sets out a number of ways that this can be effectively achieved.

### How to manage noise

Addressing the source of the hazard is the most effective option, followed by interrupting the transmission path of the noise.

The final option is to isolate or protect the workers.

- Eliminating hazardous noise sources is the surest way to safeguard peoples hearing and so should be considered in the first instance.
- If elimination is not reasonably practicable, then minimising hazardous noise exposure by substituting in quieter sources of noise (plant and processes) or modifying hazardous sources by design or engineering control/s can prove effective.
- Finally, reducing the risks by means of administrative controls e.g. signage, job rotation etc. in combination with the use of personal hearing protectors can work but provides the least desirable noise control measures.

Noise management

# Leading indicator activities – noise

<p><b>EMERGING</b></p> <p><i>A focus on implementing a compliant approach by information sharing, hazard identification and risk assessment.</i></p>	<ul style="list-style-type: none"> <li>• Ensures that most workers (e.g. 60%) receive noise hazard awareness training at induction.</li> <li>• Has ensured that most (e.g. 60%) hazardous sources of noise hazards on site have been identified in consultation with those workers most at risk.</li> <li>• Has ensured that all identified hazardous sources of noise have been assessed using an appropriate risk assessment tool.</li> <li>• Has established the sound levels of all identified noise hazards.</li> <li>• Has trained most workers (e.g. 60%) and provided all personnel likely to be exposed in the correct selection and fitting of hearing protectors.</li> </ul>
<p><b>TRANSITIONAL</b></p> <p><i>A focus on monitoring activities and stakeholder engagement with implementation of combination controls.</i></p>	<ul style="list-style-type: none"> <li>• Can demonstrate the use of combination controls (PPE plus other) for nearly all (e.g. 85%) noise hazards.</li> <li>• Has consulted with contractors and can demonstrate that nearly all (e.g. 85%) are managing noise hazards to a standard applied by the organisation itself.</li> <li>• Has a documented noise control plan which includes a policy and a ‘buy quiet’ consideration. Has also ensured that the plan was developed in consultation with the workers.</li> <li>• Periodically conducts exposure monitoring (dosimetry) for those working with or near hazardous sources of noise. The results of the monitoring are then explained to those exposed.</li> <li>• Periodically conducts targeted audiometric testing of nearly all (e.g. 85%) workers most at risk. The results of the testing are explained to those tested.</li> <li>• Has made provision for quiet areas in which to eat, shower and rest.</li> </ul>
<p><b>PROGRESSIVE</b></p> <p><i>A focus on Health Management System integration. This stage is characterised by implementation of higher order controls and regular reviews of the system’s success. Ongoing learning and continuous improvement is the goal.</i></p>	<ul style="list-style-type: none"> <li>• Can demonstrate implementation of higher order controls (substitution, isolation and engineering) for all noise hazards assessed as high risk.</li> <li>• Has pre-employment medical program for audiometric testing to establish hearing threshold baselines for all its ‘at risk’ personnel.</li> <li>• Has comprehensively mapped areas (and plant) of hazardous noise and incorporated this into their induction and risk management for continuous improvement.</li> <li>• Holds periodic re-instruction sessions for workers on the correct fitting, selection and maintenance of hearing protectors.</li> <li>• Ensures the necessary supervision to maintain robust compliance to sign posted hearing protector zones.</li> <li>• Maintains records of hearing tests, exposure monitoring and awareness training for workers as per the recommendations in the Australian standard.</li> <li>• Periodically conducts scheduled external audits of their noise management measures.</li> </ul>

## Further information

Health Management Plan: A guide to the development and implementation of a health management plan in the NSW mining and extractives industry can be accessed at: [www.resourcesandenergy.nsw.gov.au/miners-and-explorers/safety-and-health/publications/health-management](http://www.resourcesandenergy.nsw.gov.au/miners-and-explorers/safety-and-health/publications/health-management)

## Disclaimer

The information contained in this publication is based on knowledge and understanding at the time of writing in May 2011. However, because of advances in knowledge, users are reminded of the need to ensure that information upon which they rely is up to date and to check currency of the information with the appropriate officer of Industry & Investment NSW or the user’s independent adviser.