



# Health Our Requirements

## Why is this important?

We want to protect our employees' and contractors' health and wellbeing now and for their futures.

To prevent occupational illness and injury we identify and assess risk factors, manage their impact and monitor the health status of our people. We also manage work-related injury or illness and support our workforce to be mentally and physically healthy to prevent long-term impact.

## Who does this apply to?

- Anyone involved in managing the health and wellbeing of our employees and contractors.
- Anyone involved in assessing investment decisions.

## Managing our health risks

- Identify health hazards which have the potential to cause illness or injury.
- Assess health hazard risk following Appendix 1 methodologies, using the occupational exposure limits (OELs) or other relevant standards where applicable, and taking into account extended work shifts, work rosters and combined exposures.
  - Establish the exposure risk profile and review whenever a process change occurs.
    - For harmful agents, in each case, do risk based qualitative (based on documented underlying assumptions and analysis) and/or quantitative assessments. If a qualified occupational hygienist did not establish or review the exposure risk profile, have it verified by a qualified occupational hygienist.
  - Let relevant stakeholders (including workers and line managers) know the results of the assessments.

### **When exposure exceeds the OEL or is qualitatively assessed to exceed 50% of the OEL for carcinogens; or exposure exceeds or is qualitatively assessed to exceed the OEL for all other agents; or the health hazard risk exceeds the relevant standard where an OEL does not apply:**

- Prioritise exposure controls on the basis of potential health consequences, number of people exposed and magnitude of exposure reduction.
- Implement exposure controls in project design and equipment selection.
- Implement elimination, substitution, isolation or engineering exposure controls, supplemented by administrative controls (where required) to meet BHP public health targets.
- Implement exposure controls using the hierarchy of controls and following the control methodology in Appendix 1:
  - Follow a recognised standard when implementing personal protective equipment (PPE) programs;
  - Do personal fit testing for hearing protection devices, at commencement and periodically based on risk, for employees and full-time stable workforce contractors who are intended to be continuously engaged for one or more years.
- Maintain, monitor and verify the effectiveness of exposure controls.

### **When there is potential for occupational exposure to carcinogens, including levels below the OEL:**

- Let employees and contractors know when they start:
  - about potential health hazards and exposure controls and at a frequency thereafter based on risk;
  - that PPE is available for voluntary use (where use is not mandatory) and when PPE is requested, provide training on proper use.

### **When exposure exceeds 50 per cent of an OEL or when the OEL is exceeded for threshold-based exposure limits and where there is an established medical surveillance process:**

- Do baseline and periodic medical surveillance to identify potential illness at an early stage:
  - in the case of acute agents, for employees and contractors;
  - in the case of chronic agents, for employees and for full-time stable workforce contractors who are intended to be continuously engaged for one or more years.
- Let relevant stakeholders (including workers and line managers) know the results of medical surveillance and manage medical information or records by following applicable legal requirements.

## Fitness for work

- Identify roles which require medical assessment based on risk taking into account the work to be performed and the work environment.
- Determine the frequency of assessment based on the likelihood of change in health status that may impact a worker's ability to undertake such roles.
- Implement an evidence-based medical assessment process specific to the roles identified that indicates whether a worker is fit, fit subject to work modifications or unable to meet inherent requirements of the role. Make sure you manage medical information or records by following applicable legal requirements.

- Apply a fatigue management plan that is consistent with relevant industry standards and includes controls to address identified causes and impacts of fatigue.
- Monitor the effectiveness of fatigue management controls using the Appendix 1 control methodology.
- Implement a risk-based drug and alcohol program that includes controls to address potential impairment.

## **Case management**

- Make sure medical treatment is available for work-related injury or illness and, where necessary, a rehabilitation program based on medical advice.
- Optimise return to work outcomes through early reintegration into the workplace and return to the worker's pre-injury role, subject to medical advice and to the extent practicable.

## Appendix 1 Methods of analysis, exposure assessment and control

Issue/Agent	Use an assessment methodology that is consistent with:
<b>Aerosol sampling</b>	<p>ISO TR 7708:1995 Air quality - Particle size fraction definitions for health-related sampling.</p> <p>UK Health &amp; Safety Executive, Health and Safety Laboratory <a href="#">MDHS 14/4: General methods for sampling and gravimetric analysis of respirable, thoracic and inhalable aerosols</a>.</p> <p>ISO 10882-1 Second edition 2011-1—01: Health and safety in welding and allied processes – Sampling of airborne particles and gases in the operator’s breathing zone – Part 1 Sampling of airborne particles.</p>
<b>Biological monitoring</b>	American Conference of Governmental Industrial Hygienists ‘Introduction to the Biological Exposure Indices © (BEI)’ and use either ACGIH Biological Exposure Indices © or other recognised index.
<b>Chemical analysis of samples</b>	<p>US National Institute for Occupational Safety and Health, <a href="#">Manual of Analytical Methods</a>.</p> <p>UK Health and Safety Executive, <a href="#">Methods for the Determination of Hazardous Substances</a>.</p> <p>US Occupational Safety and Health Administration, <a href="#">Sampling and Analytical Methods</a>.</p> <p>ISO 15202 series, Workplace air – Determination of metals and metalloids in airborne particulate matter by inductively coupled plasma atomic emission spectrometry.</p>
<b>Comparing exposure to OELs</b>	<p><b>Chronic agents:</b> If the exposure is log-normally distributed, use Land’s 95 per cent upper confidence limit (UCL) of the arithmetic mean estimate. If the exposure is not log-normally distributed but is normally distributed, use the 95 per cent UCL of the arithmetic mean exposure.</p> <p><b>Acute agents:</b> Use the 95th percentile of the exposure distribution.</p>
<b>Exposure risk profile</b>	American Industrial Hygiene Association’s ‘A Strategy for Assessing and Managing Occupational Exposures’.
<b>Heat stress</b>	<p>Thermal Work Limit (TWL) or alternate recognised methodology where a risk assessment has identified that an equivalent or better level of protection for workers than that provided by TWL.</p> <p>For TWL, see Brake and Bates, Limiting Metabolic Rate (Thermal Work Limit) as an Index of Thermal Stress, Applied Occupational and Environmental Hygiene, Volume 17(3): 176–186, 2002.</p>
<b>Ionising radiation</b>	International Atomic Energy Agency. <a href="#">Radiation Protection and Safety of Radiation Sources: International Basic Safety Standards - Interim Edition General Safety Requirements Part 3</a> . IAEA Safety Standards Series No. GSR Part 3 (Interim), 2011, English (issued 21/11/2011).
<b>Noise</b>	Calculation of the A-weighted noise exposure level normalised to an eight-hour working day daily noise exposure level as defined in Section 3.2 of ISO 9612:2009 Acoustics - Determination of occupational noise exposure - Engineering method.
<b>UV radiation</b>	<a href="#">UV index</a> .
<b>Vibration</b>	<p><a href="#">Directive 2002/44/EC</a> of the European Parliament and of the Council of 25 June 2002 on the minimum health and safety requirements regarding the exposure of workers to the risks arising from physical agents (vibration).</p> <p>HSE vibration calculator: <a href="#">Hand-arm vibration exposure calculator</a>, <a href="#">Whole body vibration calculator</a>.</p>
Issue/Agent	Use a control methodology that is consistent with:
<b>Asbestos</b>	Government of Western Australia, <a href="#">Management of fibrous minerals in Western Australian mining operations</a> . Asbestos management program based on a recognised standard.
<b>Diesel particulate</b>	Government of Western Australia, <a href="#">Management of diesel emissions in Western Australian mining operations</a> .
<b>Fatigue management</b>	<a href="#">Performance indicators for fatigue risk management systems: Guidance document for the oil and gas industry</a> . IPIECA 2012.
<b>Infectious disease</b>	<a href="#">International SOS</a> or other recognised authority to assess infectious disease risk.