

Noise Management Document Number – OHS-PROC-133

This document applies to the following sites:

All Sites	<input checked="" type="checkbox"/>				
OR					
Brisbane Office	<input type="checkbox"/>	Tarong Site	<input type="checkbox"/>	Mica Creek PS	<input type="checkbox"/>
Mackay Gas Turbine	<input type="checkbox"/>	Stanwell PS	<input type="checkbox"/>	Meandu Mine	<input type="checkbox"/>

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1.0 Purpose

This Business Procedure describes Stanwell's minimum mandatory requirements for managing occupational noise hazards and exposure to workers.

2.0 Scope

This Business Procedure applies throughout Stanwell, all its sites and all activities under Stanwell's control. It applies to all Stanwell employees and contractors, including visitors to Stanwell workplaces.

It shall be ensured that noise and the risks associated with hearing loss are managed by:

- identifying noise hazards;
- eliminating noise at the source, where practicable;
- minimising risks associated with hearing loss, as far as is reasonably practicable; and
- ensuring that the noise a worker is exposed to at the workplace does not exceed the exposure standard for noise.

Noise hazards shall be controlled through the application of the hierarchy of controls to achieve the highest level of protection that is reasonably practicable.

Stanwell has an obligation under the Environmental Protection Act and its site-specific Environmental Authorities to ensure noise emanating from its sites does not cause a nuisance to surrounding communities. All environmental complaints are investigated and managed in accordance with the Community and Environmental Complaint Handling Procedure – STM-PROC-16.

3.0 Plant and Equipment

The following shall be applied regarding noise and plant and equipment at Stanwell sites:

- It shall be ensured that prior to purchasing or hiring plant and equipment, noise emission data is obtained from the supplier or manufacturer. Maximum noise emission limits to ensure the workplace can remain below excessive noise levels are to be stated in specifications for the purchase or hire of plant or equipment. As far as practicable, preference shall be given to plant and equipment with low noise emissions (levels lower than 85 dB(A)).
- Where possible, noise levels in areas where new plant or equipment is installed is not to exceed 85 dB(A).
- Where the purchase of equipment involves installing more than one item in the same location, the combined noise level is not to exceed 85 dB(A) (where practicable).
- New work areas are to be designed and laid out such that the noise level is maintained at the lowest possible level. Where Stanwell takes on the role of a designer, it shall be ensured that control measures are integrated early in the design process to eliminate or minimise the risks associated with noise.
- Agreements with contractors for the supply of goods or services on site are to be subject to the same noise exposure limits and requirements described in this procedure.
- Modifications to existing plant are subject to the requirements of this procedure. It shall be ensured that sites minimise noise levels, where practicable, when modifying existing plant, equipment or work processes.
- Work areas with excessive noise levels are to be designated as mandatory hearing protection areas (e.g. using signage) if alternative noise level reduction controls are not reasonably practicable.

4.0 Risk Assessment

It shall be ensured that sites identify potential sources of hazardous noise (i.e. above the exposure standard) and appropriately reduce the exposure. If this is not practicable, an Occupational Noise assessment shall be conducted to determine the exposure of noise for workers at risk of being exposed to excessive noise.

The risk assessment process for Occupational Noise will include formalising:

- a Qualitative Health Risk Assessment (QHRA);
- initial assessment by workplace area to document the noise environment, where there are changes to the work environment, or to determine whether the workplace is considered to contain excessive noise;
- baseline and periodic personal sampling plans developed to achieve an acceptable level of risk through identification, assessment and control; and
- a Detailed Noise Assessment (in areas where potential for excessive exposure is identified)

The Occupational Noise assessment program will combine work area assessments using Sound Level Meters and personal assessments using Noise Dosimeters.

Where the QHRA establishes that there is potential exposure to excessive noise, action should be taken to formalise a personal exposure baseline sampling program, which is aligned with similar exposure groups (SEG's). The number of samples required by a SEG population is outlined in the *Queensland Managing Noise and Preventing Hearing Loss at Work Code of Practice 2011*.

A Detailed Noise Assessment is prepared annually. This is a mapping and SEG review assessment prepared where existing data from noise assessments, plant and environment changes are considered. Noise assessment records are to be readily available.

Five yearly and supplementary assessments are to be conducted to monitor changes in noise exposure due to various factors or when one the criteria below is met:

- where a plant alteration which may result in a change to noise levels (i.e. increased or decreased noise levels);
- where a significant reduction in noise levels occurs, consider an exemption from mandatory hearing protection e.g. when an operating unit is offline;
- where a change to working arrangements affects the length of time workers are exposed to noise; and
- in temporary situations that may produce excessive noise.

5.0 Audiometric Testing

It shall be ensured that sites which contain locations with excessive noise levels, implement an audiometric testing program. Audiometric testing shall be provided within three months of the employee commencing work. Follow-up tests shall be carried out at least every two years. Sites may require more frequent audiometric testing, for example every six months, if exposures are at a high LAeq,8h, which is equal or greater than 100 dB(A) (as determined by a risk assessment), or in situations where workers are exposed to:

- any of the ototoxic substances listed in Appendix A of the *Queensland Managing Noise and Preventing Hearing Loss at Work Code of Practice 2011* where the airborne exposure (without regard to respiratory protection worn) is greater than 50 per cent of the national exposure standard for the substance, regardless of the noise level;
- ototoxic substances at any level and noise with LAeq,8h greater than 80 dB(A) or LC,peak greater than 135 dB(C); or
- hand-arm vibration at any level and noise with LAeq,8h greater than 80 dB(A) or LC, peak greater than 135 dB(C).

It shall be ensured that a competent person carries out audiometric testing and assessments in accordance with *AS/NZS 1269.4:2014 Occupational noise management – Auditory assessment*.

Post Incident Audiometric Testing

Permanent hearing loss can occur suddenly if a person is exposed to very loud impact or explosive sounds. This type of damage is known as acoustic trauma. Peak noise levels greater than 140 dB(C) usually occur with impact or explosive noise such as sledge-hammering or during an explosion.

Post incident audiometric testing shall be undertaken if a worker has been potentially exposed to peak noise levels without adequate hearing protection.

6.0 Personal Hearing Protectors

Personal hearing protection is to:

- be used when levels of excessive noise cannot be reduced by using other control measures (as per the hierarchy of control);
- be mandatory in all areas where workers may be exposed to excessive noise levels, and as per mandatory hearing protection signage; and
- comply with *AS 1270:2002 Acoustics – Hearing Protectors*.

The class / type of hearing protection is to be adequate to provide protection against the specific noise levels and frequencies that persons are exposed to.

Personal hearing protectors shall be managed in accordance with *Business Procedure: Personal Protective Equipment (PPE) OHS-PROC-30*.

7.0 Training and Competence Requirements

Training shall be provided in accordance with Stanwell's requirements.

8.0 Review, Consultation and Communication

Review:

This Document is required to be reviewed, as a minimum, every 5 years

Consultation:

Personnel consulted during the review of this document include the Health, Safety and Environment Representatives as well as any other personnel who have an interest in this process.

Communication/Requirements after Update:

This Business Procedure will be communicated to sites via GenNet

9.0 References

Source	Reference
Legislation	<ul style="list-style-type: none"> Queensland Work Health and Safety Regulation 2011, Part 4.1 Queensland Managing Noise and Preventing Hearing Loss at Work Code of Practice 2011
Australian Standards	<ul style="list-style-type: none"> AS/NZS1269.1:2005 Occupational noise management – Measurement and assessment of noise emission and exposure AS/NZS 1269.4:2014 Occupational noise management – Auditory assessment AS1270: 2002 Acoustics- Hearing Protectors
Business Procedures	<ul style="list-style-type: none"> Personal Protective Equipment (PPE) OHS-PROC-30 Community and Environmental Complaint Handling Procedure STM-PROC-16.
Stay Safe	<ul style="list-style-type: none"> Noise Management OHS-PROC-133A
Tools	<ul style="list-style-type: none"> Nil

10.0 Definitions

Term	Meaning
Decibel (dB)	The unit for measuring sound levels.
Hazardous noise	In relation to hearing loss means noise that exceeds the exposure standard for noise in the workplace.
L_{Aeq,8h}	The eight hour equivalent continuous A-weight sound pressure level in decibels, referenced to 20 micropascals, determined in accordance with AS/NZS 1269.1 This is related to the total amount of noise energy a person is exposed to in the course of their working day. It takes account of both the noise level and the length of time the person is exposed to it. An unacceptable risk of hearing occurs at L _{Aeq,8h} values above 85 dB(A).
Excessive Noise	A level of noise above an 8 hour equivalent continuous sound pressure level of 85 dB(A) or a peak sound pressure level of 140dB(C).
Exposure standard for noise	An L _{Aeq,8h} of 85 dB(A) or an LC,peak of 140 dB(c). There are two parts to the exposure standard for noise because noise can either cause gradual hearing loss over a period or be so loud that it causes immediate hearing loss.
LC,peak	Means the C-weighted peak sound pressure level in decibels, referenced to 20 micropascals, determined in accordance with AS/NZS 1269.1. It is usually related to loud, sudden noises such as a gunshot or hammering. LC,peak values above 140 dB(C) can cause immediate damage to hearing.
Ototoxic substances	A number of common industrial chemicals and some medications can cause hearing loss or exacerbate the effects of noise on hearing. These substances are called ototoxic substances. Ototoxic substances absorbed into the bloodstream may damage the cochlea in the inner ear and/or the auditory pathways to the brain, leading to hearing loss and tinnitus.

11.0 Revision History

Rev. No.	Rev. Date	Revision Description	Written by	Endorse/Check	Approved by
0	16.09.2015	Document issued	Jan Fullard	Michael Joy / Trevor Hooper	Ian Gilbar
1	1.11.2020	Scheduled 5 year review	Jan Fullard	Jason Paull	Kriss Ussher

12.0 Attachments

Appendix A: Noise Management Document Flowchart

