

Noise and Vibration Control

A Intent

The intent of this standard is to ensure that Rio Tinto Operations minimise their noise and vibrations impacts on the surrounding environment and communities. This is to be accomplished by identifying noise and vibration sources, evaluating and prioritising the sources according to significance of potential impacts then taking effective measures to design and implement appropriate controls.

B Scope

This standard is applicable to all Rio Tinto Business Units and managed Operations. It covers all components of noise and vibration arising from exploration and operations, including mining, mineral processing, materials handling infrastructure and on-site transport, which may significantly impact on people, communities and the surrounding environment. Where the business or operation is also responsible for ancillary activities (eg power generation) or off-site transport (rail, truck and ship), those activities are also under the scope of this standard.

Occupational noise and vibration exposure is not covered by this standard but rather by the Occupational Health Standards B2 and B3.

Other relevant documents are:

- Environmental Management System Standard
- Land Use Stewardship Standard
- Occupational Health Standards
- Biodiversity Guidance Note
- Noise and Vibration Control Guidance Note

C Requirements

Rio Tinto Business Units and/or managed Operations are required to:

1.0 *Planning*

- 1.1 Develop, document and maintain knowledge of the baseline, and for existing operations, background noise and vibration levels.
- 1.2 Employ change management procedures and predictive modelling of near and far field noise and vibration levels as part of the pre-feasibility and feasibility study for:
 - a. New developments;
 - b. Significant expansions;
 - c. Changes to existing activities and facilities.

The model will, where applicable, incorporate baseline/background data, community expectations, and regulatory requirements and identify significant exposures to sensitive receptors.

Title	Version number	Date released	Authorised by	Reason for change	Page
Noise and Vibration Control	V 1.0	Sept 2003	RT HSE	Final Version	1 of 2

- 1.3 Identify which components of the facility and which activities are the key contributors to external noise and vibration levels and understand the generation, propagation and potential environmental impact under a range of meteorological and operating conditions. Establish the likely effectiveness of noise and vibration control mechanisms in achieving regulatory or license requirements and accommodating community expectations.
- 1.4 Develop internal criteria on noise and vibration performance when government regulations are absent or incomplete to ensure protection of local community health and the environment. The criteria must be in line with internationally accepted regulations, guidelines and methodologies

2.0 *Implementation and Operation*

- 2.1 Have a procedure in place to manage noise and vibration where an assessment based on prediction modelling or monitoring results indicates the need, in order to meet regulatory requirements and accommodate community expectations.
- 2.2 Establish a model or real time assessment of near and far field noise and vibration levels throughout the life of the operation.
- 2.3 Adopt a hierarchy of noise and vibration controls, with engineering or design controls for noise sources being the first option implemented. If due to safety reasons this is not permissible consider other control processes.
- 2.4 Incorporate and maintain noise and vibration control requirements into design and operational criteria for relevant exploration and mining activities, including drilling and blasting, processing activities and new facilities.
- 2.5 Incorporate noise and vibration performance criteria into purchasing requirements for relevant, equipment and machinery.

3.0 *Performance Measurement*

- 3.1 Have a procedure in place for monitoring noise and vibration levels outside current operations, that adequately samples potentially affected neighbouring areas, and covering a broad range of operating and meteorological conditions.
- 3.2 Implement a monitoring program to:
 - a. Support operational control;
 - b. Verify compliance with targets and legal requirements;
 - c. Update and maintain the relevance of near and far-field noise and vibration models;
 - d. Assess noise and vibration impact on the environment and communities under a broad range of operating and meteorological conditions.

Title	Version number	Date released	Authorised by	Reason for change	Page
Noise and Vibration Control	V 1.0	Sept 2003	RT HSE	Final Version	2 of 2