



SOUTHERN PORTS

ALBANY BUNBURY ESPERANCE

**BUY QUIET PROCEDURE
ESPERANCE**

DOCUMENT CONTROL

Version Number	Description	Reviewed by	Approved by	Revision Date	Issue Date
0	First Draft to include reference to Environmental Noise	D Lindkvist	A Byers	Feb 2016	Feb 2016
1	Comments section 1 used equipment	A Byers	A Byers	Feb 2016	Feb 2016
2	Environmental noise	A Leonard	A Byers	Feb 2016	Feb 2016
3	Insertion of: Responsible Person, role of Environmental Department and using broadband "croaker" reversing alarms.	A Leonard	J Oldfield	Jan 2017	Jan 2017
4	Minor amendments.	A Leonard	A Leonard	Nov 2017	Nov 2017
5	Minor amendments.	A Leonard	A Leonard	Jan 2020	Jan 2020
6	Minor amendments including addition of Noise Survey Report as reference doc. Note: this is now a shared document between OHS and Environment.	M. Stevens	A Leonard D Graham	Aug 2020	Aug 2020
7	Change out Appointed Noise Office to Approved Noise Officer with relative amendments.	D. Graham	A. Leonard D. Graham	Aug 2020	Aug 2020

AUDIT

This procedure shall be reviewed / revised

- Where a Risk Assessment / Audit identifies a need to review;
- Following a significant incident involving this procedure; or
- At least every 2 years.

TABLE OF CONTENTS

DOCUMENT CONTROL	2
AUDIT 2	
1. PURPOSE	4
2. SCOPE	4
3. SOUTHERN PORTS NOISE LEVEL GOAL	4
4. TEAM RESPONSIBILITIES	4
4.1. Requestor	4
4.2. Noise Officer	4
4.3. Environmental Team	4
4.4. Engineering and Maintenance	5
4.5. Responsible Manager or Supervisor	5
4.6. Procurement Personnel	5
5. DETERMINING THE NEED FOR NEW EQUIPMENT OR PROCESS	5
6. REQUIREMENTS FOR REVERSING ALARMS FOR MOBILE PLANT	5
7. CONTRACTUAL TENDERING	5
8. QUESTIONS FOR SUPPLIERS	6
9. LACK OF SUPPLIER INFORMATION	6
10. PLANT OR EQUIPMENT NOT BELOW ACTION LEVELS	7
11. REFERENCE DOCUMENTS:	7

1. PURPOSE

This procedure provides guidance for controlling noise levels at the earliest stages of planning and design and aims to encourage the minimisation of noise generation by purchasing intrinsically quieter equipment.

2. SCOPE

This procedure is to be used by personnel who purchase new or used equipment and plant or tender for services at Southern Ports and it should be used in conjunction with our Change Management Procedure.

3. SOUTHERN PORTS NOISE LEVEL GOAL

Southern Ports aims to provide a work place noise level of no greater than 85 dB(A) over an eight (8) hour day or an 82 dB(A) equivalent over 12 hours. Therefore, all equipment and plant purchased should be no greater than 85 dB(A) at the operator's ear.

For plant or equipment that may emit high impulse noise, the noise level will not exceed 140 dB(l). A measurement of 85 dB(A) at 1 metre but located inside a building and nobody nearby, would normally be accepted but should be actioned on a case by case basis.

Consideration of Environmental Noise outside the Port boundary will require consultation with the Environmental Team at the earliest planning and design stage.

4. TEAM RESPONSIBILITIES

It is highly recommended that a team approach to the purchase or tender for plant, equipment or services be utilised at Southern Ports and include as a minimum the Requestor, Environmental Team, Procurement personnel and information based on the current Occupational Noise Survey Report.

4.1. Requestor

The Requestor is the person who has identified the need for plant, equipment or service in the workplace. The Requestor is responsible for ensuring the steps for Buy Quiet and Change Management processes are followed and communicated with all stakeholders.

4.2. Noise Officer

An approved Noise Officer will be sourced where required to provide assistance and advice to estimate noise levels from equipment and placement of equipment in the workplace. This advice can extend to recommendations for noise treatment devices and other controls as necessary.

For tendered services, an approved Noise Officer may be contracted to assist in the process, including but not limited to:

- Specifying the maximum acceptable noise level
- Assisting, with the preparation of specification and tender documents
- Evaluating noise information provided with tenders and quotes
- Providing assistance to purchasing personnel for negotiations with suppliers for additional noise control as necessary
- Conducting noise measurements for evaluation once on site

4.3. Environmental Team

Provides advice based on noise modelling and verification by monitoring, to ensure equipment used by existing and planned operations is compliant at the Port's boundary with statutory criteria. The statutory criteria is specified in the Regulation 17 Noise Approval for the Port of

Esperance which are issued in accordance with the Noise Regulations and the Environmental Protection Act (1986).

4.4. Engineering and Maintenance

Engineering and Maintenance Departments shall be used for technical engineering advice as well as installation specifications.

4.5. Responsible Manager or Supervisor

The Requestor's Manager or Supervisor is responsible for ensuring equipment entering their area of responsibility is given signatory approval or decline.

4.6. Procurement Personnel

Procurement personnel are responsible to ensure that evidence of approval is sighted prior to final ordering or service acceptance.

5. DETERMINING THE NEED FOR NEW EQUIPMENT OR PROCESS

Prior to purchasing new equipment, it is important to determine whether there is a quieter way to do the job.

Once it has been established that there is a need for new equipment the following process should be followed:

- Noise data requested from the supplier or manufacturer
- Compare noise levels received to Esperance's prescribed Noise Action Level both inside and outside the Port boundary
- Determine what this noise level will mean with plant or equipment in situ in the workplace with the assistance of an approved Noise Officer
- Accept or reject equipment based on noise levels and risk assessment to be signed off by the relevant Manager
- Proceed to purchase and participate in the delivery of equipment
- Post installation testing of noise levels

6. REQUIREMENTS FOR REVERSING ALARMS FOR MOBILE PLANT

To avoid exposing surrounding residents to unnecessary noise, while still ensuring safety is not compromised, Southern Ports requires all mobile plant on site to have broadband reversing alarms or "croakers" installed. This includes plant owned by Contractors.

Self-adjusting croakers are preferable since they adjust themselves to the level of background noise.

A BBS-TEK Alarm – Self Adjusting 610-BBS107SA (92-107dB) or an equivalent model as agreed with the Environmental Department is to be used. These alarms can be purchased cheaply and are easy to install. The sound wavelengths used in these alarms do not travel the same distance as the traditional higher pitched alarms, but travel far enough to safely warn everyone in the immediate vicinity that a vehicle is reversing.

7. CONTRACTUAL TENDERING

For any plant, equipment or services being tendered the following shall be included in tender documentation:

- Southern Ports Esperance's noise action levels for plant and equipment to enter the workplace

- Request for noise levels of plant or equipment to be provided for evaluation and approval prior to entering the workplace
- Requirements for negotiating for additional noise control as necessary

8. QUESTIONS FOR SUPPLIERS

It is recommended to ask the suppliers the following questions;

- Are there quieter models of the same machine?
- Does the quieter equipment have any additional safety features?
 - If so, what are they?
- Is there any specific maintenance and service requirements?
- Are there any optional extras that can be purchased to further reduce noise?
- What costs are involved?

Even though quieter equipment tends to be more expensive to purchase, the equipment is usually better built and has noise reducing features included.

Features to consider in the selection process are:

- Higher manufacturing tolerances
- Insulation or damping material included
- Gears that mesh together better
- Fans that are quieter
- Better mountings
- More secure parts to reduce vibration
- Less reverberation within the unit itself
- Tolerance for greater loads
- Less impact noises produced in operation
- The use of quieter processes (e.g. hydraulic operations often dampen noise)
- Sound enclosures for noisy parts or operators
- Parts or attachments constructed of noise absorbing material (e.g. rubber or polyethylene)
- Remote controls that allow operators to remain a safe distance from the source of the noise

9. LACK OF SUPPLIER INFORMATION

When a supplier is unable to provide information on the noise level of the equipment it may be possible to arrange for noise measurements to be made of the same model of machine already installed elsewhere or of a machine set up in the supplier's workshop.

The supplier may be prepared to meet or at least share the cost of having the measurements made since the information would be useful in relation to future product promotion and sales.

If no data is available after these avenues are investigated then it is recommended to research further supplier options.

10. PLANT OR EQUIPMENT NOT BELOW ACTION LEVELS

Plant which fails to meet the Noise Action Level should be accepted only with the written approval of the Safety and Security Manager, and the Environmental Manager, via a risk assessment, who should check that:

- Efforts have been made to locate alternative suppliers;
- Negotiations have been held with tenderers to determine the feasibility of additional noise control work on their products and the availability of noise- reducing accessories;
- The equipment is to be supplied with the maximum affordable amount of noise reduction treatment to minimise noise emission inside and outside the Port; and
- Consideration has been given to the design of the area in which the new equipment is to be installed to ensure that operator exposure and Environmental noise levels will be as low as practicable.

11. REFERENCE DOCUMENTS:

- Workers' Compensation and Injury Management Regulations 1982
- Mines Safety and Inspection Regulations 1995
- Australian Standard – AS 1269 – Part 0-4 Occupational Noise Management
- Department of Mines and Petroleum Guideline – Noise Control in Mines
- Change Management Procedure (D15/1875)
- Southern Ports - Esperance Noise Hazard Register
- Southern Ports - Esperance Noise Management Audit
- Southern Ports - Esperance Environmental Management Plan
- Environmental Noise License
- Occupational Noise Survey Report 2020 (D20/2444)