

# Vessel Noise Operating Protocol at [berth]

## Purpose

The common use berths at Glebe Island and White Bay play an important role in providing commercial shipping berth capability for Sydney. Glebe Island is home to a number of terminal operators who receive bulk product by ship and supply the product to support Sydney's construction and materials markets.

Port Authority of New South Wales recognises that noise and vibration from ships utilising the berths of Glebe Island and White Bay can be of concern to local residents living close to the working port. Port Authority is committed to working with residents, ship operators and tenants to manage noise and other impacts from ship operations.

This Vessel Noise Operating Protocol applies to ships utilising the Berth of [insert].

The Vessel Noise Operating Protocol is an application of:

- Port Noise Policy
- Vessel Noise Guideline

## Definitions

In this policy, the following definitions are used.

**Berth [insert]:** means the area of navigable water in the Port of Sydney Harbour adjacent to the face of a berth at Glebe Island or White Bay and as described as [insert] in the Berths and Channels published by Port Authority and available at <https://www.portauthoritynsw.com.au/sydney-harbour/port-services-facilities/berths-channels-promulgated-depths/>.

**dBA:** is an abbreviation which indicates the noise levels have been expressed in decibels (dB) using an A-weighting filter which approximates how the human ear perceives the loudness of complex noise sources with both low frequency (for example, chugging of engines), medium (for example, fans and engine exhaust flow) and higher frequency aspects.

**Ship Operator:** means the person (natural or corporate) that owns or operates the ship or the cargo or on whose behalf the ship is being operated. If there are more than one, it refers to each of them severally and any two or more of them jointly.

**Occupier:** means a tenant, licensee or occupier of Glebe Island or White Bay and who is receiving or discharging cargo to the ship at berth [name berth].

# Responsibilities

Port Authority holds overall responsibility for management of noise from [name berth]. The Occupier and the Ship Operator are both responsible for ensuring that the noise and vibration from any ship utilising the berth does not exceed the Vessel Trigger Noise Level.

# Vessel Trigger Noise Level

The Vessel Trigger Noise level for the berth is shown below.

Table 1 Vessel Trigger Noise Level

Time period		
Day (7am to 10pm)	Night (10pm to 7am)	
60dBA, LAeq 15hr	55dBA, LAeq, 1hr (worst case)	65dBA, LAmax

The Vessel Trigger Noise Levels are to be assessed or measured relative to the reference location shown in Figure 1.

Figure 1 Indicative reference locations



Should a Vessel exceed the Vessel Trigger Noise Level, specific actions will be required by either the Occupier or the Ship Operator. These specific actions will be required during the current and any subsequent visit by the ship. These actions are outlined for daytime and night time in Table 2 and Table 3 respectively.

Table 2 Specific actions based on exceedance of the daytime Vessel Trigger Noise Level

Detection number	Exceedance of Vessel Trigger Noise Level (Day)		
	0-3dBA* (7am to 6pm)	3dBA to <5dBA (7am to 6pm) 0dBA to <5dBA (6pm to 10pm)	5dBA+ (7am to 10pm)
1st	DC, N	DC, N	DC, N, A, MP, CA
2nd	DC, N,	DC, N, A	DC, N, A, MP, CA, OR
3rd	DC, N	DC, N, A, MP	DC, N, A, MP, CA, OR
4th	DC, N	DC, N, A, MP	VD
Subsequent	DC, N	DC, N, A, MP	VD

Table 3 Specific actions following exceedance of the night time Vessel Trigger Noise Level

Detection number	Exceedance of Vessel Trigger Noise Level (Night)			
	1-2dBA*	3dBA to <5dBA	5dBA+	5dBA+ without unloading
1st	DC, N	DC, N, A, MP	DC, N, A, MP, CA	DC, N, A, MP, CA
2nd	DC, N, A, MP	DC, N, A, MP, CA	DC, N, A, MP, CA, OR	DC, N, A, MP, CA
3rd	DC, N, A, MP	DC, N, A, MP, CA, OR	DC, N, A, MP, CA, OR	NR
4th	DC, N, A, MP	NR	NR	NR
Subsequent	DC, N, A, MP	NR	NR	NR
3 previous CAs	NR	NR	NR	NR

This table is divided into four bands of exceedance ranging from low impact with 1dBA to 2dBA exceedance to high impact with exceedances of 5dBA or greater. The table indicates actions for each visit that a ship is detected within each band.

Explanation of the berth actions are outlined in Table 4 with the responsibility for those actions assigned to either Port Authority, the Occupier and/or the Ship Operator.

Table 4 Abbreviations used in tables 2 and 3 - Specific Actions

<b>Abbreviation</b>	<b>Action</b>	<b>Explanation</b>	<b>Responsibility</b>
DC	Data collected	Data collected into database	Port Authority
N	Notification	Occupier and Ship Operator are notified if the Data collected identifies a potential exceedance and may trigger a requirement for Attended measurement at the Occupier's cost.	Port Authority
A	Attended measurement	<p>Attended measurement is performed by Port Authority. Attended measurement will include the ship running a generator only and then generator together with the self-unloading system. Attended measurement will measure noise at various unloading speeds.</p> <p>Attended measurement will determine whether a ship has exceeded the Vessel Trigger Noise Level.</p> <p>Attended measurement result will be documented in a report</p> <p>If Attended measurement determines an exceedance of the Vessel Trigger Noise Level the Ship Operator must prepare a Management Plan.</p>	<p>Port Authority to obtain Attended measurement.</p> <p>The Ship Operator and Occupier must cooperate with Port Authority during Attended measurements.</p> <p>The Occupier is to pay for the costs of Attended measurement (includes measurement, analysis and reporting).</p>
MP	Management Plan	<p>The Ship Operator is required to prepare a Management Plan having regard to the results of the Attended measurement to ensure that noise and vibration levels from the ship fall at or below the Vessel Trigger Noise Level for this and subsequent visits. The Management Plan must be provided to Port Authority and the Occupier for review and any feedback must be incorporated into the Management Plan.</p> <p>The Ship Operator is to comply with the Management Plan. Either Port Authority or the Occupier may require further amendments to the Management Plan upon further exceedances of the Vessel Noise Trigger Level.</p>	Ship Operator
CA	Corrective Action Notice	<p>Letter issued to Ship Operator advising of impending Operational Restriction and/or Night Restriction.</p> <p>If evidence of corrective action is submitted to Port Authority within the time provided in the Corrective Action Notice, the Corrective Action Notice will be lifted and the restriction not applied.</p>	<p>Port Authority to submit Corrective Action Notice.</p> <p>Ship Operator to take and submit evidence of corrective action.</p>

<b>Abbreviation</b>	<b>Action</b>	<b>Explanation</b>	<b>Responsibility</b>
OR <sup>1</sup>	Operational Restriction	Ship Operator is to implement operational changes to bring about reduction in noise, for example, restricted self-unloading operations from the ship.	Port Authority to submit Operational Restriction Notice.  Ship Operator and Occupier to take and submit evidence of operational changes.
NR	Night Restriction	The ship, at its cost, must leave the berth by 10pm on the date that the Corrective Action Notice takes effect and may only be at the berth between the hours of 7am and 8pm for the duration of the Corrective Action Notice.	Notices to be issued by Port Authority and complied with by Ship Operator and Occupier.  The Ship Operator is to bear the costs of relocating the Ship to and from the berth.
VD	Vessel Declined	Port Authority will not accept any future bookings for this ship at any Glebe Island and White Bay berths in future, unless it can be demonstrated to Port Authority's satisfaction that vessel has undergone adequate modification to significantly reduce noise levels below the Vessel Trigger Noise Level.	Notices to be issued by Port Authority and complied with by Ship Operator and Occupier.

Note 1:Operational Restrictions, such as restricted night unloading are not seen as a long term solution as they have the effect of increasing the days the ship is at berth which can increase the noise exposure impact on the community. However, it is a reasonable short term solution to reduce noise for a ship which is already in the process of reducing noise through a Management Plan. The OR also has the effect of a penalty (through extended time in port) for the second significant exceedance or third moderate exceedance of the trigger noise level.

Where Ship Operators servicing an Operator have received a total of three Corrective Action Notices in a 12 month period, Night Restrictions apply for the next ship servicing the Occupier that exceeds the Vessel Trigger Noise Level.

If a ship has made three night-time visits without exceeding the Vessel Trigger Noise Level, the ship's prior exceedances will be considered to be rectified.

Any vessel that has received a Night Restriction may reapply to Port Authority for berth access once noise levels have been addressed. The application must be submitted with an independent noise study from an appropriately qualified noise consultant. This study must outline details of how noise levels have been reduced on board the vessel and include details of the vessel noise levels before and after noise reduction that would likely be measured at Port Authority's berth. Approval of any application is at the sole discretion of Port Authority.

## Examples

The following examples apply the specific actions tables and are given to assist in the explanation for the specified actions for exceedances of the Vessel Trigger Noise Level.

## Ship X: Management Plan is effective to reduce noise

On the first visit to the berth, data is collected showing *Ship X* is 6dBA above the Night Vessel Trigger Noise Level during cargo operations. Port Authority issues a Notification advising the Ship Operator and Occupier of the potential exceedance to the Vessel Trigger Noise Level. Attended measurement confirms the exceedance. *Ship X* prepares a Management Plan and remedies the noise exceedance during night time operations by using fans on the port side, which is away from receivers (i.e. residences). No further action is taken as the Management Plan is effective in reducing the ship noise levels below the Night Vessel Trigger Noise Level.

## Ship Y: consecutive exceedances of Vessel Trigger Noise Level.

On the first visit to the berth, data is collected showing *Ship Y* is 7dBA above the Night Vessel Trigger Noise Level. Port Authority issues a Notification advising the Ship Operator and Occupier of the potential exceedance of the Vessel Trigger Noise Level. Attended measurement confirms the exceedance. *Ship Y* prepares a Management Plan. A Corrective Action Notice is also issued advising that further Attended measurements determining noise and vibration at or above this decibel reading will result in a Night Restriction for the ship.

On its second visit, an Attended measurement is undertaken which shows the ship to be 6dBA over the Night Vessel Trigger Noise Level. This demonstrates the Management Plan is ineffective to reduce the noise and vibration decibel level from the ship and the ship is issued with an Operational Restriction, which requires Ship Operator and Occupier to implement operational changes to bring about reduction in noise . The Operational Restriction applies to the ship and a further Corrective Action Notice is issued. On the third visit the vessel is found to be 5dBA above the Night Vessel Trigger Noise Level. The ship is required to comply with the Operational Restriction and is also issued with a Night Restriction in the Corrective Action Notice, and so the ship is not permitted to berth overnight for any subsequent visits.

## Ship Z: rectification of prior exceedances

On the first visit to the berth, data is collected showing *Ship Z* is 1dBA above the Night Vessel Trigger Noise Level. On the next visit data is collected showing *Ship Z* is 4dBA above the Vessel Trigger Noise Level. A Notification is issued to the ship and an Attended measurement determines that the ship has exceeded the Night Vessel Trigger Noise Level by 3dBA. The Ship is required to develop a Management Plan to reduce noise. On the third visit *Ship Z* is found to be 1dBA to 2dBA above the Night Vessel Trigger Noise Level, and this triggers a third notification, a second Attended measurement and a requirement to review and update its Management Plan. On the fourth visit the vessel does not exceed the Night Vessel Trigger Noise Level and no data is collected. After three further consecutive night time visits without exceeding the Vessel Trigger Noise Level, the prior exceedances of *Ship Z* are regarded as rectified.

## Review

Port Authority will review and update this Operating Protocol every three years.

Port Authority aims to ensure that the noise and vibration decibel levels at the port of Glebe Island and White Bay are reduced over time, and takes into account the effect of noise and vibration on all occupants of the port and neighbours in the vicinity of the port and the changing environment. To achieve this objective, Port Authority may reduce the  $L_{Aeq}$  components of the Vessel Trigger Noise Level by no more than 2dBA at increments no shorter than every three years. This is in line with commitments made by Port Authority in its Port Noise Policy.

Please refer to the latest version of this document on Port Authority's website.