

# ABRASIVE BLASTING PERMIT PROCEDURE

A645122

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## 1. INTRODUCTION

Abrasive blasting activities are undertaken on Pilbara Ports land and (over) waters, often as part of the construction and maintenance of assets / infrastructure.

The Western Australian *Environmental Protection (Abrasive Blasting) Regulations 1998* (the Abrasive Blasting Regulations) defines abrasive blasting as: “cleaning or abrading the surface of an object using an abrasive material propelled by compressed air, water or steam or by a wheel”.

This procedure details the relevant legislation, roles and responsibilities and minimum health, safety and environmental requirements that must be met when undertaking abrasive blasting on Pilbara Ports lands and over water. This procedure also provides an overview of the process for obtaining an Abrasive Blasting Permit from Pilbara Ports Environment and Heritage team.

## 2. SCOPE

This procedure applies to all abrasive blasting activities (as defined in the Abrasive Blasting Regulations) occurring in Pilbara Ports controlled areas (Appendix 1) and/or carried out by Pilbara Ports or its contractors on Pilbara Ports marine infrastructure. Pilbara Ports controlled areas include all port secure areas, as well as roads, road reserves and vacant lease areas on Pilbara Ports land. Pilbara Ports marine infrastructure includes channel markers and navigational aids, as well as the following:

- MOF break wall, tug pen access road and tug pens (Ashburton);
- Ashburton Cargo Wharf (ACW);
- Dampier Cargo Wharf (DCW) (Dampier);
- Bulk Liquids Berth (BLB) (Dampier);
- Nelson Point tug pens (Port Hedland);
- Service jetty, commercial jetty and public jetty (Port Hedland); and
- Berths 1, 2, 3 and 4 (Port Hedland).

### 2.1 Exclusions

This procedure does not apply to abrasive blasting carried out within any leased and licensed lands outside Pilbara Ports secure areas.

## 3. LEGISLATIVE REQUIREMENTS

Key legislation and codes of practice relevant to abrasive blasting activities in Western Australia include:

- Work Health and Safety Act 2020
- Work Health & Safety (General) Regulations 2022;
- Environmental Protection (Abrasive Blasting) Regulations 1998;
- Work Health and Safety (Mines) Regulations 2022;
- Worksafe Western Australia Commission, Code of Practice Abrasive Blasting (y 2022); and

- Abrasive Blasting Code of Practice (2020) Safe Work Australia.
- Western Australian *Environmental Protection (Noise) Regulations 1997*

Abrasive Blasting Activities shall meet the requirements of and conform to all listed legislation and codes of practice.

## 4. ROLES AND RESPONSIBILITIES

**Error! Reference source not found.** outlines the roles and responsibilities pertaining to this procedure.

**Table 1: Responsibilities and accountabilities under Pilbara Ports Abrasive Blasting Procedure**

PARTY	RESPONSIBILITY / ACCOUNTABILITY
Pilbara Ports Environment and Heritage Team	<p>The Environment and Heritage Team is responsible for</p> <ul style="list-style-type: none"> <li>• reviewing and approving all Abrasive Blasting Permits</li> <li>• undertaking environmental inspections of abrasive blasting sites to audit compliance to this procedure both during the activity and following the completion of clean-up works (on a risk based approach)</li> </ul> <p>external reporting in the event that there is a breach (by Pilbara Ports or our contractors) of the <i>Environmental Protection (Abrasive Blasting) Regulations 1998</i></p>
The Applicant	<p>The applicant is responsible for</p> <ul style="list-style-type: none"> <li>• Submitting a completed and signed application for an Abrasive Blasting Permit together with all required documentation (as detailed in this Procedure and the Permit), to Pilbara Ports Environment and Heritage team no less than <b><u>two business days</u></b> prior to the proposed works start date.</li> <li>• Ensuring all information provided in the Permit is accurate.</li> <li>• Ensuring the abrasive blasting operation is carried out in accordance with the approved permit and associated risk assessments.</li> <li>• Ensuring that personnel involved in the abrasive blasting have received adequate training and are competent to perform the necessary tasks and have adequate supervision.</li> <li>• Any and all emissions from the abrasive blasting activity. This includes emissions to air, land and water.</li> <li>• Ensuring all waste materials are cleaned up or, when previously approved, contained at the end of each day, and cleaned up completely at the conclusion of each abrasive blasting operation.</li> <li>• Notifying Pilbara Ports Environment and Heritage team immediately of any incidents and hazards, in accordance with Pilbara Ports Incident Management Procedure, and Hazard Management Procedure.</li> </ul> <p>Advising Pilbara Ports Environment and Heritage Team as soon as practicable when the abrasive blasting activity and clean-up is complete.</p>

PARTY	RESPONSIBILITY / ACCOUNTABILITY
The Supervisor / Person in Charge (PIC)	<ul style="list-style-type: none"> <li>The PIC - in charge of the operation is to ensure that personnel receive adequate training; supervision and retraining as necessary to enable them to safely execute the specified task.</li> <li>The PIC is responsible for; <ul style="list-style-type: none"> <li>Ensuring personnel are competent in the tasks they are being asked to perform,</li> <li>Inspecting the worksite to ensure hazards are identified on the Safe Work Instruction (SWI) or Job Hazard Analysis (JHA) and risk assessment have adequate controls; and</li> <li>Work is being performed as stated on the permit/ the SWI, and / or the JHA.</li> </ul> </li> <li>The PIC is to have read and understood the task requirements of the Abrasive Blasting Permit pertaining to the specifics of the task to be performed and the requirements of: <ul style="list-style-type: none"> <li>Code of Practice Abrasive Blasting 2022; WorkSafe WA; <a href="https://www.commerce.wa.gov.au/publications/code-practice-abrasive-blasting-0">https://www.commerce.wa.gov.au/publications/code-practice-abrasive-blasting-0</a></li> </ul> </li> </ul> <p>Code of Practice, Abrasive Blasting October 2020 <a href="https://www.safeworkaustralia.gov.au/doc/model-code-practice-abrasive-blasting">https://www.safeworkaustralia.gov.au/doc/model-code-practice-abrasive-blasting</a></p>

## 5. ABRASIVE BLASTING PERMITS

An Abrasive Blasting Permit approved and issued by Pilbara Ports Environment and Heritage team is required prior to any abrasive blasting activity commencing within Pilbara Ports controlled areas (Appendix 1). An overview of the process for acquiring an Abrasive Blasting Permit is outlined in Figure 1.

Pilbara Ports Environment and Heritage team will determine the length of time an Abrasive Blasting Permit will be issued for (as appropriate), in consultation with the Applicant and the work area owner. Individual permits may not be required if the abrasive blasting activity is occurring within a fit for purpose abrasive blasting chamber and the Environment and Heritage team have reviewed and inspected the chamber to confirm it meets the intent and the requirements of the Blasting Regulations.

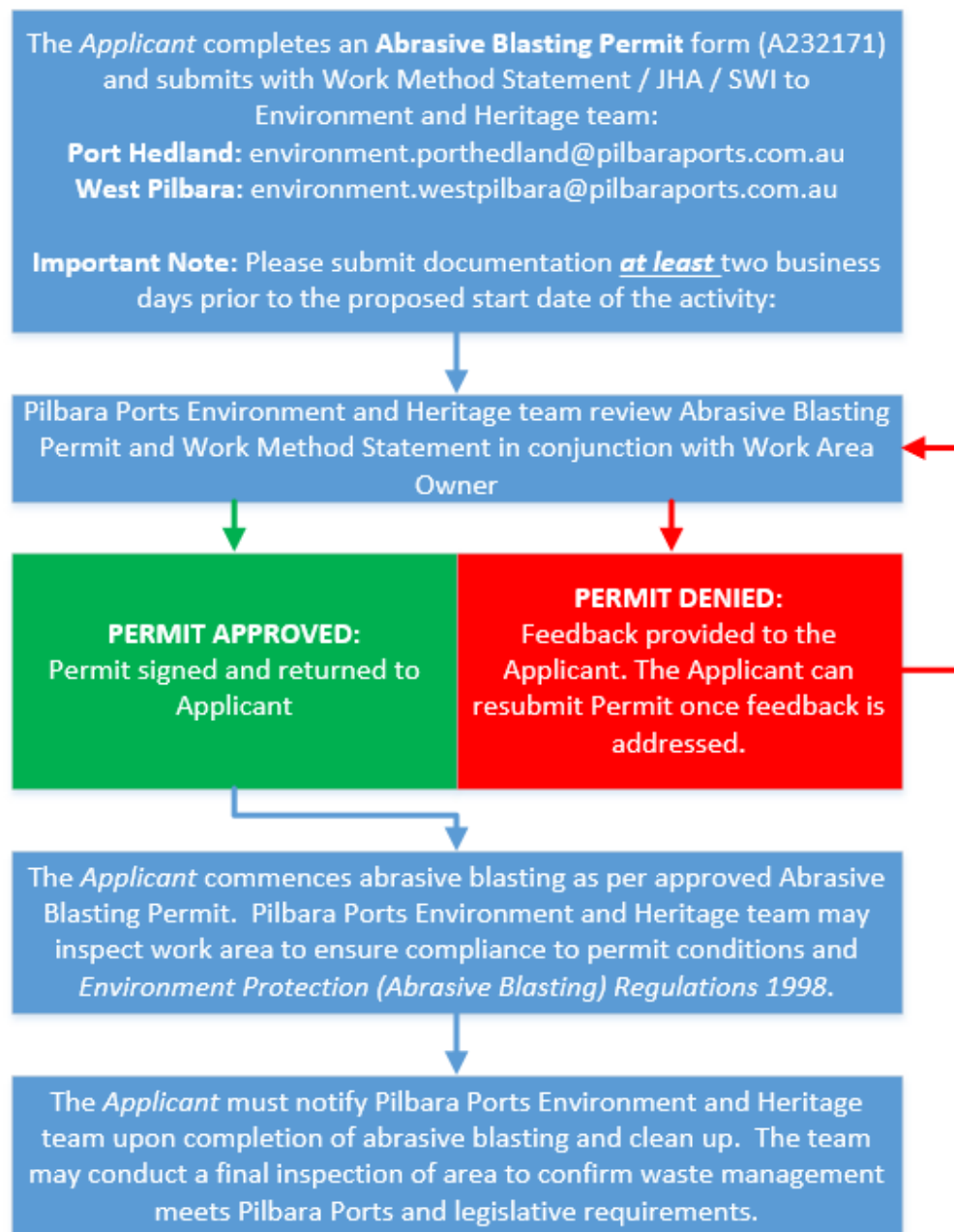
Each Abrasive Blasting Permit must be supported by an appropriate task-based risk assessment and a work method statement (if required).

Each new abrasive blasting activity requires a new Abrasive Blasting Permit form to be completed and submitted to the Environment and Heritage team for review / approval. If an Abrasive Blasting Permit expires prior to the completion of the abrasive blasting activity, a new Permit must be submitted, supported by a new task-based risk assessment and work method statement (if required).

Where abrasive blasting operations are occurring over waters in Pilbara Ports jurisdiction, either from a vessel and/or on a navigation aid, the Applicant will be required to seek separate approval from the Harbour Master (or delegate).

Where abrasive blasting operations are occurring on a public berth or within the cargo laydown areas the Applicant must also separately consult with and seek the approval of the Pilbara Ports Port Manager or their delegate for these works.

It is a requirement of a valid Abrasive Blasting Permit that a copy of the Permit is to be kept at the work site at all times (i.e. the location of the abrasive blasting activity). Pilbara Ports will issue an immediate stop work notification for any abrasive blasting works being undertaken without a hard copy of the Permit available at the work site.



**Figure 1: Overview of Pilbara Ports Abrasive Blasting Permit Application Process**

## 6. HEALTH AND SAFETY CONSIDERATIONS

To ensure the safety of persons engaged with or in the vicinity of abrasive blasting activities, the following considerations should be made and evidenced in the relevant risk assessments:

### 6.1 Equipment

Equipment used for the purposes of abrasive blasting at the workplace must be designed so that the person operating the nozzle can control the flow of abrasive material through the nozzle. The equipment must be fitted with hose whip checks,

hose coupling safety locks or both. Where hoses are joined or connected to compressors or delivery nozzles, hoses must be fitted with positive lock couplings, whip checks and safety pins if such a provision is available.

In the case of equipment used for dry abrasive blasting, there must be an efficient means for the discharge of static electrical charge from the abrasive blasting nozzle. Hoses should be constructed with anti-static rubber linings or fitted with an earth wire or similar mechanism to prevent electric shock.

In the case of equipment used for wet abrasive blasting, the water flow rate must be sufficient to prevent the generation of dust.

Where practicable, the equipment used shall include a device designed to cut off the flow of abrasive material through the nozzle automatically if the person operating the nozzle becomes unable to do so. If this is not practicable, procedures must be in place, which enable another person to cut off the flow of abrasive material if the person operating the nozzle becomes unable to do so.

## 6.2 Protective Equipment

Where abrasive blasting is not conducted in a blasting cabinet, a supplied air respirator fitted with an inner bib, and a shoulder cape, jacket, or protective suit shall be worn.

A risk assessment shall be conducted, and the selected protective equipment shall provide the personnel conducting the work adequate protection from the hazards and risks, as discussed and identified in the legislated documents and guidance notes.

## 7. ENVIRONMENTAL CONSIDERATIONS

To ensure requirements of the *Environmental Protection (Abrasive Blasting) Regulations 1999* are met, the following elements should be considered when completing an Abrasive Blasting Permit:

### 7.1 Air Quality

Dry blasting must be carried out inside a blasting chamber. The operator must ensure that no visible dust escapes the blasting chamber (if used) or premises at which the blasting is being carried out (if a blasting chamber is not used). The operator should give consideration to the weather conditions when constructing the blasting chamber or encapsulation to ensure there will be no escape of visible dust.

A permit can be suspended by Pilbara Ports if a suitable blasting chamber is available but not utilised by the operator or if dust is observed escaping the blasting chamber/ encapsulation or premises at which blasting is being carried out.

## 7.2 Fauna

There is the potential for abrasive blasting of channel markers and other marine infrastructure to impact birds that utilise structures for nesting (e.g. Ospreys).

The operator must thoroughly inspect the work site prior to commencing abrasive blasting to determine whether there is any evidence of bird nesting. If a bird's nest is found (active or inactive), the *Applicant* must immediately inform the Environment and Heritage team.

An Abrasive Blasting Permit will be suspended immediately by Pilbara Ports if abrasive blasting operations are demonstrated to be impacting fauna.

## 7.3 Noise Sensitive Receptors

Some Pilbara Ports sites are located in close proximity to noise sensitive receptors.

All abrasive blasting is to be carried on in accordance with the Western Australian *Environmental Protection (Noise) Regulations 1997*. Contact a member of the site Environment and Heritage Team for further information.

An Abrasive Blasting Permit can be suspended by Pilbara Ports if the abrasive blasting activity is carried on in a manner which contravenes the *Environmental Protection (Noise) Regulation 1997*.

## 7.4 Clean Up and Waste Disposal

Adequate clean-up and disposal of waste material is necessary to prevent dust emissions and reduce the risk of discharging potential contaminants to port land and waters.

The permit holder must ensure that:

- all waste material is cleaned up at the end of each operational day, or where a full clean-up is not practicable, all waste material is sufficiently contained within the work area.
- all waste material is cleaned up immediately at the conclusion of each abrasive blasting operation.
- no waste material escapes from the designated work area.
- all waste material is disposed of at an appropriately licenced landfill site or waste treatment facility.
- documented evidence must be retained and available to Pilbara Ports (on request) of waste receipts.

An Abrasive Blasting Permit can be immediately suspended, and future permits denied by Pilbara Ports if abrasive blasting is carried on in a manner where the clean-up and disposal of waste material does not meet Pilbara Ports and legislative requirements.

## 7.5 Aquatic Environments

This section only applies to abrasive blasting operations taking place in or near aquatic environments that involve the removal of organotins or other heavy metal protective coatings.

Abrasive blasting must not be conducted in or near an aquatic environment unless the size, shape, position or location of the object being blasted makes it impracticable to move the object out of, or away from, that environment.

Where abrasive blasting in or near an aquatic environment is carried out, the operator must ensure that all water which may contain waste material is drained into, and contained in, an impervious holding sump until it is disposed of.

The operator must ensure that:

- any overflow from the holding sump will drain into a soakwell
- the holding sump and soakwell are emptied as often as necessary to ensure their efficient operation.

Permits will be immediately suspended by Pilbara Ports if abrasive blasting is carried out in such a manner that waste material is discharged to port waters..

## 8. PROCESS OWNER

The Director of Environment & Heritage is responsible for this procedure.

Date approved:

Review date:

16 April 2024

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Approved by:

Director Environment & Heritage

## ANNEXURE A - MAPS ILLUSTRATING PILBARA PORTS OPERATIONAL AREAS IN ASHBURTON, DAMPIER AND PORT HEDLAND, WHICH REQUIRE AN ABRASIVE BLASTING PERMIT



