PICKFORD & RHYDER CONSULTING PTY LTD
ABN 17 105 546 076
Occupational Hygiene Measurements and Solutions. NATA Accredited.

PO Box 975 Ryde 1680
3/41-43 Higginbotham Rd
Gladesville NSW Australia
Phone: (02) 9418 9151
Fax: (02) 9418 9150

EXPOSURE CONTROL PLAN

For the

MANAGEMENT OF OCCUPATIONAL DUST

Pronto Bin – Proposed Waste Management Operations
115-119 Cowpasture Road Wetherill Park NSW
Version 1.1, 21 March 2019

This ECP was developed for:

Document Control

Version	Date	Revision Details	Author	Approver
1.0	4 Feb 2019	Draft copy for consultation	Pickford & Rhyder	Gary Rhyder
1.1	21 Mar 2019	Final draft for approval	MRA Consulting Group	Esther Hughes

Contents

1. Purpose

This Exposure Control Plan (ECP), also known as the Dust Management Plan (DMP) outlines the steps to reduce the generation of airborne dust and at the same time minimise, as low as reasonably practicable, the risk of exposure to dust and its contaminants at the proposed Pronto Bins, Wetherill Park operations.

This Plan outlines the:

- Specific risk based controls to manage people, plant & processes, and;
- The process for reviewing and updating the ECP.

2. Site & Process Description

The proposed waste management facility is intended to have a capacity of 20,000 tonnes per annum (tpa); processing construction and demolition waste materials which include the following:

- Bricks and roof tiles;
- Concrete;
- Timber;
- Plasterboard;
- Plastics;
- Metals; and,
- Mixed waste.

No putrescible/ odorous waste materials are proposed to be accepted on site.

The operations will be limited to the front section of the building on the lot and cover an area of approximately 1500 metres square (m2). The remaining sections of the building are leased for furniture storage and formwork by different companies which are not considered in this application.

There are two stages to the development. Stage 1 involves manual processing while Stage 2 involves mechanical processing. This DMP addresses both stages. (Refer to indicative site layouts of Stage 1 and Stage 2 provided in Figure 1 and Figure 2).

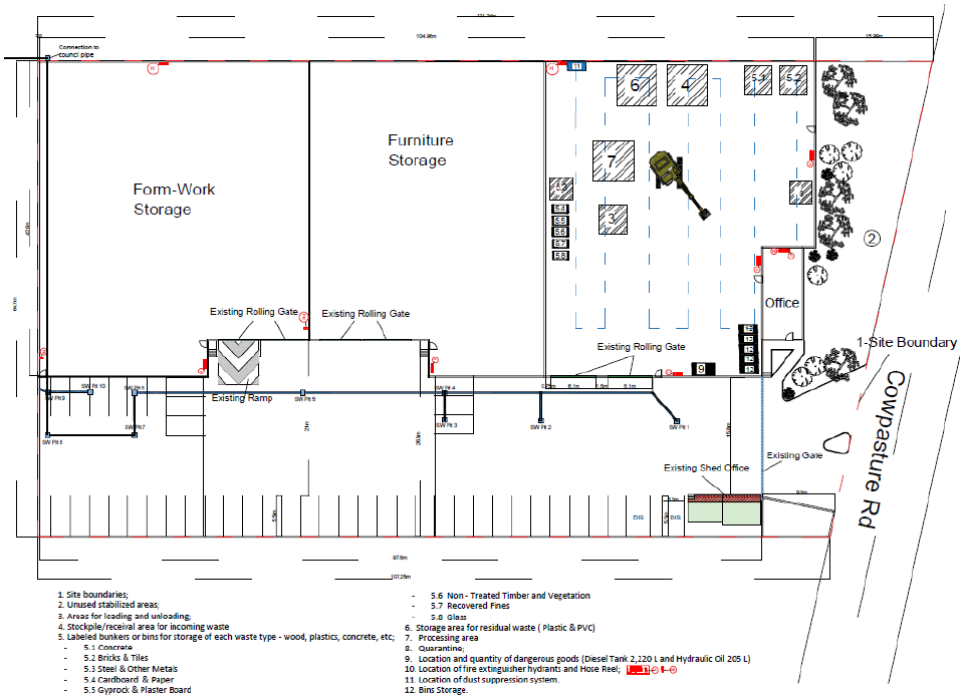

Figure 1: Manual Process

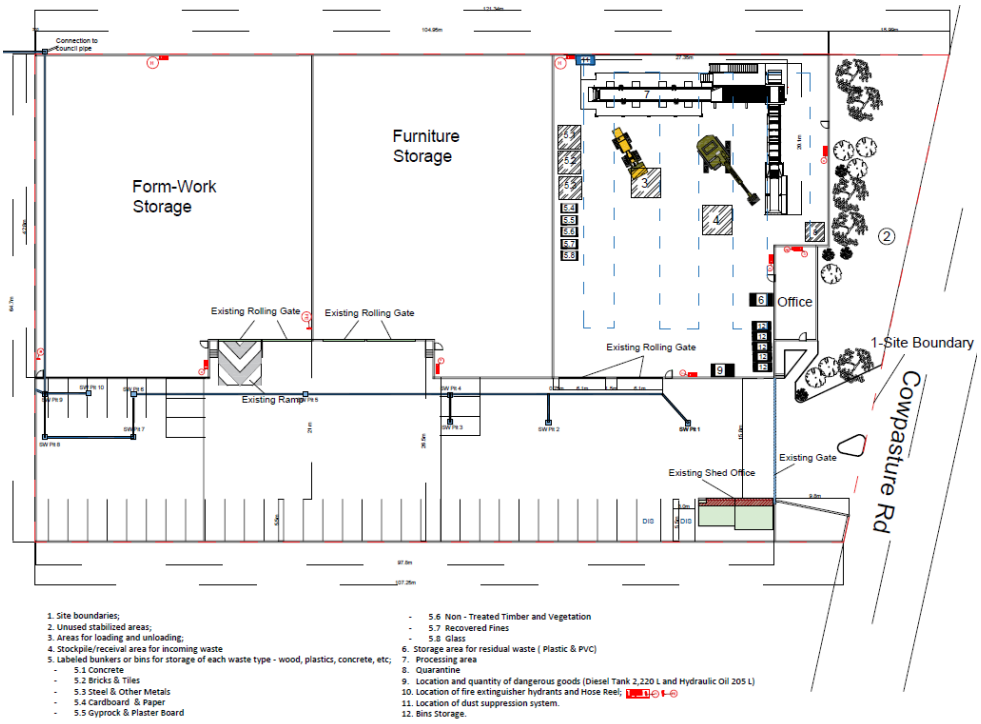

Figure 2: Mechanical Processing

Construction and demolition waste materials will be sorted into separate streams to be transported to appropriate recovery facilities for further recycling.

The basic process will be as follows:

- Incoming materials are inspected whilst still within the truck body (non-complying loads rejected);
- Materials are tipped on the sorting floor;
- Materials are inspected and large items removed;
- Materials are fed into the hopper;
- Small pieces of waste and soil are separated out with a vibrating screen;
- Manual sorting is conducted on the sorting platform;
- Metals are removed by the overhead magnet; and,
- Sorted materials are transported off site for further recycling. Waste which cannot be recycled would be transported to a licensed facility.

3. Relevant Legislation and other documents

- *Work Health and Safety Act 2011*
- *Work Health and Safety Regulation 2017*
- *AS/NZS 1715 - Selection, Use And Maintenance Of Respiratory Protective Equipment*
- *AS/NZS 1716 - Respiratory protective devices*
- *AS 4260 - High efficiency particulate air (HEPA) filters – Classification, construction and performance.*

4. Control Measures

4.1 Substitution of Plant & Equipment

All Heavy Mobile Equipment (HME, i.e. excavators, front end loaders, commercial sweepers etc) are to be fitted with sealed cabins with appropriate air-conditioning and HEPA filtration units. A schedule of

inspections in accordance with the OEM has been established to ensure that cabin seals and air-conditioning filtration systems are effective.

4.2 Substitution of Work Methods

Reduced time exposures will not be used to control exposure of dust.

4.3 Engineering Controls

The following engineering controls will be implemented:

- Fogging type water misting must be placed at sources of dust emission. As a minimum, water misting is to be operational at all times on the screen decks and at all conveyor exit points whilst the plant is operating.
- All concrete/masonry cutting/coring equipment, used onsite, is to be fitted with dust extraction and/or dust suppression systems. Where dust extraction systems are used a 99% efficiency rating is to be achieved for dust emitted with a particle size less than 10 micrometres.
- Vacuum cleaners should comply with the Class H requirements in Australian Standard AS/NZS 60335.2.69 Industrial Vacuum Cleaners. Filters for these vacuum cleaners should conform to the requirements of AS 4260 High efficiency particulate air (HEPA) filters – Classification, construction and performance or its equivalent.
- Hard stand areas, along with the driveway are to be kept clean using a commercial sweeper machine fitted with a HEPA air exhaust system
- All clean air in-takes for the air conditioning system are to be drawn directly from outside the building and positioned at least 15 metres away from all openings/entries (i.e. doors, vents etc.) leading directly to the waste handling area.
- Wet areas, for cleaning of boots, washing hands etc. are to be separate from the waste handling areas and the administrative/worker facilities areas.

4.4 Administrative Controls

The following administrative controls will be implemented:

- HME Windows are to be closed at all times and where the air-conditioner is not working or overdue for servicing it is be tagged “Out of Service”.
- All Administrative offices and worker facilities are to be treated as clean areas and as a minimum sign posted to inform persons entering that notable dust and mud must be removed from shoes before entry (including Boot Wash).
- Signs are to be erected to inform all truck drivers upon entry:
  - Only trucks that can be tarped from the ground will be loaded (i.e. “No Tarp – No Load”)
  - No driver is to leave the safety of their truck unless permission is given by the loader operator via 2-way radios or equivalent.
  - Truck windows are to remain closed until leaving the premises.
  - Trucks and light vehicles can only leave the premises once their wheels have been washed or have been checked and determined to be free of debris/mud.

4.5 Personal Protective Equipment

- Workers on foot within the waste handling areas (i.e. spotter) are to wear respiratory protection until occupational hygiene monitoring demonstrates that this ECP is effective and the ECP amended.
- Personal respiratory protection will be selected, used and maintained in accordance with AS/NZS 1715:2009 Selection, use and maintenance of respiratory protective equipment.
- Workers are to have respirator fit testing carried out and be part of a health monitoring program as required under the WHS Regulation 2017.

4.5.1 Respiratory Protection

Australian Standard AS/NZS 1715 - Selection, Use and Maintenance of Respiratory Protective Equipment sets out the principles of respiratory protection, requirements and recommendations for the selection, use and maintenance of personal respiratory protective equipment (RPE) in the workplace.

When selecting a respirator it is important to determine the level of dust that is likely to occur and in turn the level of protection that is required. RPE selection can be summarised as follows:

RPE[I]	FILTER	INHALABLE DUST[II]	RESPIRABLE DUST[III]	RESPIRABLE QUARTZ[IV]
Disposable dust mask (half-face)	P1 or P2	RPE is effective up to 100 mg/m^3	RPE is effective up to 30 mg/m^3	RPE is effective up to 1.0 mg/m^3
Half-face Powered Air Purifying Respirator (PAPR)	P2[V]	RPE is effective up to 500 mg/m^3	RPE is effective up to 150 mg/m^3	RPE is effective up to 5.0 mg/m^3
Full-face Air-Purifying Cartridge Respirator	P3	RPE is effective up to 1000 mg/m^3	RPE is effective up to 300 mg/m^3	RPE is effective up to 10.0 mg/m^3

Notes:

(I) Protection factors listed assume that the user is clean shaven, properly fits the RPE, and has been fully trained in the selection, safe use and limitations of his RPE.

(II) Inhalable Dust (NOS) WES = 10.0 mg/m^3 for 8hr TWA.

(III) Respirable Dust (NOS) WES = 3.0 mg/m^3 for 8hr TWA.

(IV) Respirable Quartz WES = 0.10 mg/m^3 for 8hr TWA.

(V) Where a P3 filter is used in a half facepiece respirator or half facepiece PAPR, a protection factor equivalent to a P2 is achieved.

4.6 Inspection and Maintenance Requirements

The following administrative controls will be implemented:

- A site inspection (i.e. a Daily Site Inspection Log) is to be performed prior to opening the site for the receipt of waste materials.
- Pre-start checks (i.e. Prestart Log) are to be performed on all fixed and mobile plant prior to use.
- No load is to be accepted unless inspected whilst still within the truck body and once tipped. Contaminated loads (i.e. containing asbestos etc.) are to be rejected.
- Fixed and mobile plant maintenance shall be preceded by washing down area as required to be serviced/maintained.
- A schedule of inspection has been established to ensure that cabin seals and air-conditioning filtration systems are effective.
- Air filters from equipment and machinery should be disposed as waste through an approved disposal service. At no time are compressed-air to be used for cleaning.
- HME Cabins should be regularly cleaned at the end of each shift using an appropriate industrial vacuum cleaner complying with Australian Standards:

  - AS/NZS 60335.2.69 Household and similar electrical appliances – Safety – Particular requirements for wet and dry vacuum cleaners, including power brush, for industrial and commercial use; and,
  - AS 4260 High efficiency particulate air (HEPA) filters – Classification, construction and performance. Smooth surfaces are to be wet wiped.
- No dry brush sweeping is to be undertaken onsite; instead HEPA filter vacuums and wet methods (mopping, wiping, hosing) are to be used.
- All vehicle trafficable areas are regularly wetted down with water and receivable/dispatch/load out areas are to be cleaned using a Commercial Sweeper or hosed into a “wedge pit” (or equivalent) for later removal as waste.

4.7 Training and Competency Requirements

All workers are to be provided with the following training:

- Health risks of inhalable dust.
- Roles and responsibilities for management and workers in managing dust levels onsite.
- The proper use and maintenance of PPE including respiratory protective equipment (RPE), and their limitations.
- Processes and safe work procedures to be followed to prevent the creation of visible dust and the risk of exposure (i.e. Windows are to be closed at all times and where the air-conditioner is not working or overdue for servicing it is be tagged “Out of Service”.)
- How to operate dust suppression systems, and;
- Specific occupational hygiene requirements for the site (i.e. boot washing, participating in Occupational Hygiene Monitoring etc.).

5. Consultation Process

Consultation of this ECP will occur in accordance with the Site’s Safety Management Plan.

6. Review and Evaluation Effectiveness

This ECP is to be reviewed annually by the Site Manager and approved by the respective Managing Director.

Baseline Occupational Hygiene Monitoring (OHM) is to be undertaken to determine the effectiveness of this ECP and the frequency of ongoing OHM.

7. Records

All Occupational Hygiene and Occupational Health Records are to be kept for at least thirty (30) years after it is made. Health monitoring records are to be kept for at least 40 years after made.

Records of all training must be kept while the worker is carrying out the work and for five years after the day the worker stops carrying out the work.

All other records are to be archived for seven years.