

# Wallerawang Power Station Demolition Project

# **Waste Management Plan**

Prepared by Liberty Industrial Pty Ltd For

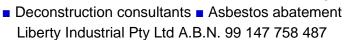


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# **Specialist Deconstruction Services**







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## 1 PURPOSE

Liberty Industrial (the company) is committed to the promotion of waste avoidance and reduction, and resource recovery and efficiency actions. This aim is achieved through conserving the environment, recycling demolition waste and using recycled products on all of our projects where practicable, aiming to achieve over 95% recycling by weight.

The purpose of this Waste Management Plan is to:

- Identify the types and quantities of waste that would be generated during the undertaking, and the areas in which waste will be stored prior to removal;
- Outline standards and performance measures for dealing with this waste;
- Outline a detailed description of how this waste would be reused, recycled and, if necessary, appropriately treated and disposed of in accordance with New South Wales Environmental Protection Authority (NSW EPA) guidelines on the management of regulated wastes;
- Outline a description of how the effectiveness of these actions and measures would be monitored over time; and
- Outline a description of what procedures would be followed to ensure compliance if any non-compliance is detected;

## 2 SCOPE

To ensure that all site waste is managed in a lawful and responsible manner meeting Council targets and objectives along with Greenspot's contract requirement and expectation for the Wallerawang Power Station Demolition works.

## 3 REFERENCES

- Contaminated Land Management Act 1997;
- Dangerous Goods (Road and Rail Transport) Act 2008;
- Environmentally Hazardous Chemicals Act 1985;
- Ozone Protection Act 1989;
- Waste Avoidance and Resource Recovery Act 2001;
- Protection of the Environment Operations (Waste) Regulation 2005.
- Work, Health and Safety Act 2011 (NSW)
- Work, Health and Safety Regulation 2017 (NSW);
- How to safely remove asbestos: Code of practice
- Liberty Industrial Management System

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## 4 WASTE TYPES AND QUANTITIES

Material	Estimated Quantity Produced / Used (t)	Recyclable (Y/N)	Estimated Quantity Recycled (t)	% Recycled
Concrete	TBA	Y	TBA	100%
Ferrous / Non-Ferrous	40,000	Y	40,000	100%
General Waste	250	N	TBA	0%

## 5 STANDARDS AND PERFORMANCE MEASURES

In order to achieve the waste avoidance and minimisation objectives (95%) recycle rate, Liberty Industrial follows the following hierarchy of waste management principles in all aspects of operations:

Avoid unnecessary resource consumption

Reduce waste generation and disposal

Re-use waste resources without further manufacturing

Recycle waste resources to make the same or different products

Recover waste resources, including the recovery of energy

Treat waste before disposal, including reducing the hazardous nature of waste

Dispose of waste only if there is no viable alternative

The company uses a Waste Tracking System to record waste types, quantities and disposal methods for all waste streams in the form of a waste register spreadsheet. This spreadsheet records the disposals and contains the following information:

- Tracking of each waste stream;
- Dates of waste disposal;
- Transport information (contractor, rego, truck etc.);
- Licensed facility accepting the waste;
- Records of Waste Transport Certificates;
- Disposal weights of all waste streams, including cumulative total of each waste stream;
- Percentage Recycling Rate;
- Monthly, Quarterly and Yearly analysis of waste quantities and movements;
- Provide corrective actions to rectify any accidental spillage of waste;

This record keeping demonstrates a step towards better waste management, as it allows for the establishment of standard waste levels. Records of waste quantities allow the Project

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Manager to assess the performance of the undertaking in line with the above waste management principles to avoid and minimise waste to landfill.

# Ref: FRM-123 Waste Register

## **6 WASTE MANAGEMENT**

All Asbestos will be managed in accordance with the Asbestos Removal Control Plan.

#### Ref: Asbestos Removal Control Plan

## 6.1 MONITORING AND MEASUREMENT

The company will monitor the site waste and record all waste movements from site utilising the waste register as the tracking medium. Waste tracking audits will be undertaken to ensure that the licensed waste removalists take the waste to lawful facilities.

## 6.2 REPORTING REQUIREMENTS

Waste Register Reports will be produced quarterly and include the following details:

- audits and inspections;
- corrective actions;
- training and awareness;
- water use data;
- waste disposal;
- recycled materials;

# 6.3 WASTE TRACKING SYSTEM PROCEDURE

## 6.3.1 Objective

The objective of the Waste Tracking System (WTS) is to account for the relocation and/or disposal of all waste material, in addition to any recyclable material removed from site. Asbestos containing materials will be managed separately and removed from site packaged pursuant to the "How to Safely Remove Asbestos Code of Practice".

The responsibility for recording, maintaining and reporting of this rests with the site Project Manager.

## 6.3.2 Controls

The Waste Tracking System will be used to manage and monitor the movement of waste.

The WTS will:

Record and document the transfer of each waste load using a waste tracking dockets:

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- Retain dockets to validate the final destination of all hazardous and nonhazardous waste;
- Document the off-site disposal of waste material using the docket system and the appropriate environmental permits for removal of controlled waste from the site pursuant to the Protection of the Environment Operations (Waste) Regulation 2005.

#### 6.3.3 Actions

The following actions will be used to effectively manage the movement of waste material across and out of the site:

- An initial site induction for all worker(s) involved with the movement and relocation of the waste. They will be informed of the site/location of waste and transport routes to be used;
- A General Waste Register will be used to identify the description of the waste, docket number, transport company, vehicle registration, disposal facility and quantity of the waste;
- A NSW EPA permit must be obtained prior to removal for wastes classified as trackable. The form will be in duplicate with the original retained by the landfill operator and the duplicate retained by the transport driver, once signed as received by the landfill operator;

# 6.4 INTERNAL WASTE HANDLING PROCEDURE

# 6.4.1 Objective

As part of the demolition works, site waste will be sorted into waste streams to avoid contamination of the various waste.

Soil and possibly some waste material will be excavated, transported across the site and either temporarily stockpiled, or taken directly off-site for disposal. The objective of this procedure is to ensure the transportation and handling of all waste material within the project area is undertaken in a safe and lawful manner.

## 6.4.2 Controls

This procedure will be used to control the following tasks and items:

- Regulate the transfer of waste within the project area;
- Identify location of stockpiles; and
- Rate of placement of waste based on compliance to air quality, noise, vibration criteria, stockpile height and any safety concerns.

#### 6.4.3 Actions

The following actions are to be used for managing the excavation, transfer, and stockpiling of waste fill including the placement of the final cover.

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#### **Excavation**

In the event that work has to be undertaken below grade the follow shall apply:

- Penetration and Break-in Permit must be issued before a surface penetration occurs;
- All waste material is to be removed in a damp condition to reduce the potential for dust generation and adverse air quality as per the requirements of the DEMP;
- Waste material is to be placed directly into trucks for immediate transfer to the temporary stockpile;

#### Ref: LI-FRM-014 Work Permit

## LI-FRM-036 Excavation, Penetration and Break-in Permit

## **Transportation**

- All loads are to be wet down with a fine water spray to prevent dust emissions prior to leaving the exclusion zone;
- Trucks loading scrap out are to follow the route identified on the Traffic Management Plan and are to be clearly defined with signage where required and kept damp to prevent nuisance dust;
- Spill kits will be located in designated work areas close to haulage routes;

# **Stockpiles**

- Stockpile locations for waste material will be streamed as identified by the Project Manager in consultation with Greenspot's client representative, stockpile locations will be in the exclusion zone;
- Waste material may only be temporarily stockpiled on top of existing waste fill material or on top of compacted material if on natural ground;
- All temporary stockpile locations are to be inspected daily by the Site Supervisor and at regular intervals by the Project Manager;
- Dust suppression techniques are to be used on the temporary stockpiles in accordance with the DEMP

## 6.4.4 Monitoring and reporting

Monitoring and reporting will include:

- Accidents involving the spillage of waste material from trucks and the corrective action undertaken using an Incident Report form;
- Earthmoving and traffic accidents are to be reported verbally (radio communication) and in writing directly to the Site Supervisor immediately following the incident; and

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 Routine random checks will be undertaken by the Project Manager of waste handling practices to ensure conformance to this procedure;

# Ref: FRM-031 Incident Report

#### 6.4.5 Domestic Waste

Domestic waste generated on site will mainly consist of food scraps and rubbish from the crib room. These scraps will be placed in domestic rubbish bins or skips located at each crib room, and recycled or disposed of by a licensed contractor.

#### 6.5 OFF-SITE WASTE DISPOSAL PROCEDURE

## 6.5.1 Objective

Waste material excavated during the demolition work will only be stockpiled onsite temporarily. These stockpiles will be transported to an approved landfill or recycling facility.

The objective of this procedure is to ensure that all waste material is transported off-site to a lawful appropriate class of landfill in a safe and environmentally responsible and lawful manner.

#### 6.5.2 Controls

This procedure will be used to control the following tasks and items:

- Characterisation of the material for class of landfill;
- Movement of material off-site; and
- Transport route to landfill;

#### 6.5.3 Actions

The following actions will be followed for managing the off-site disposal of any waste material:

- Stockpiles of material for off-site disposal will be characterised and classified in accordance with the Waste Guidelines (NSW EPA 2014). If necessary, stockpile samples will be tested for potential contaminants;
- Material will be transported off-site once approval has been provided by the landfill operator;
- If required, application for a waste transport certificate to be approved by the NSW EPA;
- All movement of material offsite is to be recorded using the General Waste Register:
- Trucks are to be roadworthy and operated in accordance with transport regulations;

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- Two-way radios or mobile phone to be provided in all trucks in case of emergency;
- Truck loads are to be covered with tarpaulins prior to leaving the site to prevent dust emissions whilst in transit (excluding scrap metal loads);
- Trucks to exit site utilising the Traffic Management Plan;
- Off-site transport routes will be decided upon prior to any loads being removed from site; and
- The road condition at the entrance/exit to the work site will be monitored continuously and swept/washed as necessary;

## 6.5.4 Monitoring and reporting

Monitoring and reporting will include:

- Accidents involving the spillage of material from trucks and the corrective action undertaken is to be reported in an Incident Report form;
- Traffic accidents are to be reported to the Police, and verbally to the Project Manager immediately following the incident; and
- Routine random checks will be undertaken by the company Supervisor to ensure the loads are secure and conform to this procedure;

# 6.5.5 Asbestos transport NSW

In NSW the transport of more than 10 square meters of asbestos sheeting, or 100 kilograms of asbestos waste must be reported to the EPA. Asbestos transporters and facilities receiving asbestos waste must report the movement of this waste to the EPA using WasteLocate. Each load of asbestos waste needs to have a unique EPA consignment ID, which the transport company must generate using WasteLocate. The unique EPA consignment ID will allow each load to be monitored from the place of generation to the site of disposal.

The following actions will be followed for managing the off-site disposal of Asbestos (if required) in NSW:

- Quantity and description of asbestos waste will be advised to transport company when engaged.
- The unique EPA consignment ID will be sited before the Asbestos waste is allowed to leave site.
- The transport company will supply Liberty Industrial with a copy of the WasteLocate consignment after delivery to designated waste facility.
- A copy of the WasteLocate consignment note will be saved by Liberty Industrial.
- All asbestos being disposed at the approved ash repository burial cell location north of the Wallerawang Power Station, shall be tracked using weighbridge dockets prior to carting.

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#### Ref: Asbestos Removal Control Plan

#### 6.6 ONSITE WASTE DISPOSAL PROCEDURE

# 6.6.1 Objective

Particular waste material encountered during the demolition works will be transported to an approved onsite disposal location.

The objective of this procedure is to ensure that particular waste material is transported to a lawful appropriate class onsite landfill in a safe and environmentally responsible and lawful manner.

#### 6.6.2 Controls

This procedure will be used to control the following tasks and items:

- Characterisation of the material for class of landfill;
- Movement of material onsite; and
- Transport route to approved onsite landfill location;

#### 6.6.3 Actions

The following actions will be followed for managing the onsite disposal of any waste material:

- Material for onsite disposal will be characterised in accordance with the Waste Classification Guidelines (NSW EPA, 2014). If necessary, samples will be tested for potential contaminants.
- Material will be transported to the onsite landfill location once approval has been provided;
- If required, application for a waste transport certificate to be approved by the NSW EPA;
- All movement of material is to be recorded using the General Waste Register;
- Trucks are to be roadworthy and operated in accordance with transport regulations;
- Two-way radios or mobile phone to be provided in all trucks in case of emergency;
- Truck loads are to be covered with tarpaulins while travelling extended distances on the site to prevent dust emissions whilst in transit (excluding scrap metal loads);
- Trucks to travel around site utilising the Traffic Management Plan;
- Transport routes will be decided upon prior to any loads being transported to the onsite landfill location; and

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- The road condition at the entrance/exit to the work site will be monitored continuously and swept/washed as necessary
- Condition L2.1 of the EPL 766 The licensee must not cause, permit or allow any waste to be received at the premises, except the waste expressly referred to in the column titled "Waste" and meeting the definition, if any, in the column titled "Description" in the table below.

Any waste received at the premises must only be used for the activities referred to in relation to that waste in the column titled "Activity" in the table below.

Any waste received at the premises is subject to those limits or conditions, if any, referred to in relation to that waste contained in the column titled "Other Limits" in the table below.

This condition does not limit any other conditions in this licence.

Code	Waste	Description	Activity	Other Limits
NA	Concrete	Concrete waste generated onsite which complies with the Recovered Aggregate Order and Exemption under the POEO (Waste) Regulation 2014	Resource recovery Waste storage	Concrete waste must only be disposed of in the voids provided in section 2.2 of the Wallerawang Power Station Demolition Statement of Environment Effects 26 September 2018 (DOC20/4358-4)
NA	Asbestos waste	Asbestos waste generated onsite from demolition of Wallerawang Power Station	Waste disposal (application to land)	Quantity of Asbestos waste disposed must not exceed 11,000 cubic metres. Asbestos waste must only be disposed of in accordance with the "Wallerawang Power Station Proposed Asbestos Disposal Area EIS" (DOC20/4358-3).

Ref: Traffic Management Plan

# 6.6.4 Monitoring and reporting

Monitoring and reporting will include:

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- Accidents involving the spillage of material from trucks and the corrective action undertaken is to be reported in an Incident Report form;
- Traffic accidents are to be reported to the Police, and verbally to the Project Manager immediately following the incident; and
- Routine random checks will be undertaken by the company Supervisor to ensure the loads are secure and conform to this procedure;

#### 6.7 SURFACE RUNOFF MANAGEMENT PROCEDURE

# 6.7.1 Objective

The objective of this procedure is to prevent soil erosion of disturbed ground surfaces and potentially waste runoff from entering waterways.

#### 6.7.2 Actions

- The following actions are to be followed for managing surface runoff from waste material.
- All stormwater inlets servicing the project area are to be protected with sediment controls as per the DEMP and stormwater sediment control plan drawing;
- Stockpiles of waste will be stored only on exposed surfaces of waste to prevent contaminating clean ground as per the DEMP and stormwater sediment control plan drawing, and will also form part of the weekly inspections;
- If required, a dust suppressant will be applied over the clean soil cover following placement to stabilise the ground surface.

## 6.7.3 Monitoring and reporting

Monitoring and reporting will include:

- Routine random checks will be undertaken by the Site Supervisor of the stormwater system and any bunding to ensure conformance to this procedure; and
- Should there be any uncontrolled surface runoff or uncontained erosion of waste, the incident and any corrective action undertaken is to be reported and recorded in Liberty Industrial's online management system.

Ref: Contaminated Land Management Plan

Pollution Incident Response Management Plan

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