

Harrison Manufacturing Company

Waste Management Plan

For Northern Beaches Council

DA Submission

TABLE OF CONTENTS

Applicant and Project Details	3
Section 1 – Demolition	4
Section 2 – Construction	5
Section 5 – On-going waste management for non-residential developments	7

Property and Project Details

Complete this page and the relevant Sections that apply to your proposed development.

Property Details

Lot No: Deposited Plan (DP) No: or Strata Plan (SP) No:	75 Old Pittwater Road, Brookvale NSW 2100 DP 166808 and DP 600059
Unit No: House No: Street: Suburb: Postcode:	

Project Details

Description of proposed development:	The proposed construction and installation of a fume collection and scrubbing system will remove the odorous species to an acceptable/compliant level while also addressing other nuisance gaseous emissions that would otherwise be seen as emissions of concern by the EPA. The collection and treatment of the grease plant fumes would also result in wastewater (that would also require treatment) and a solids waste component. These streams are already generated in our existing system and are currently managed within our licence agreements with the relevant parties.
Structures to be demolished:	The existing fume collection system will be removed.

Section 1 – Demolition

The existing plant will be decommissioned and cleaned, the existing scrubber is steel in construction and will be cleaned flushed with fresh water to remove residual chemicals. The vessel will then be cut up and sold to scrap metal recyclers. The same will be done for the frames.

The waste streams from cleaning the vessels and pipework will result in solid waste grease that is sent to a recycling refinery for base oil production. The wastewater will be captured and put through our wastewater treatment system.

MATERIALS ON SITE	DESTINATION <i>Evidence such as weighbridge dockets and invoices for waste disposal or recycling must be retained on site for inspection</i>					
	REUSE AND RECYCLING (MOST FAVOURABLE)				DISPOSAL (LEAST FAVOURABLE)	
Types of Waste Material	Estimated Volume (m ³) or Weight (t)	ONSITE RE-USE ✓ Specify how material will be reused on site	OFFSITE RECYCLING ✓ Specify recycling outlet (RO) ✓ Specify Waste Transport Contractor (WTC)		OFFSITE DISPOSAL ✓ Specify landfill site (LS) ✓ Specify Waste Transport Contractor (WTC)	
* Please specify			WTC	RO	WTC	LS
Excavated Material	< 1 t	Re-use for filling and levelling the proposed site area				
Garden Organics	N/A					
Bricks	N/A				OPTION NOT AVAILABLE: These materials must be re-used or separated on or off site and sent for recycling.	
Tiles	N/A					
Concrete	N/A					
Timber*	N/A					
Plasterboard	N/A					
Metals*	4T		Scrubber vessel and supporting frame			
Asbestos	N/A					
Other waste*	< 1 t		Waste Grease-Recycling,			

Estimated Total % Recovered	100%	
--------------------------------	------	--

WMP Checklist for Demolition

Have you included the following:	Applicant Tick
A site plan showing: <ul style="list-style-type: none"> • The structures to be demolished. • Potential storage areas for waste to be reused, recycled, or disposed of. • Materials storage (of the development also includes construction) 	<input checked="" type="checkbox"/>
The table on the previous page, completed in accordance with 'Chapter 1 – Demolition' in the guidelines.	<input checked="" type="checkbox"/>

Section 2 – Construction

All equipment used in the new build will be fabricated off-site and brought onto the site for assembly. Therefore, the building materials for these structures will be done following their respective LGA requirements and no building construction waste materials are described herein.

Site area preparation and development (foundations, etc.) will result in construction and excavation waste. All waste material will be kept to a minimum by efficient planning and material resourcing, however, excess material will be reused according to the following plan:

MATERIALS ON SITE	DESTINATION <i>Evidence such as weighbridge dockets and invoices for waste disposal or recycling must be retained on site for inspection</i>					
	REUSE AND RECYCLING (MOST FAVOURABLE)				DISPOSAL (LEAST FAVOURABLE)	
Types of Waste Material	Estimated Volume (m³) or Weight (t)	ONSITE RE-USE ✓ Specify how material will be reused on site	OFFSITE RECYCLING ✓ Specify recycling outlet (RO) ✓ Specify Waste Transport Contractor (WTC)		OFFSITE DISPOSAL ✓ Specify landfill site (LS) ✓ Specify Waste Transport Contractor (WTC)	
* Please specify			WTC	RO	WTC	LS
Excavated Material	< 1 t	Re-use for filling and levelling the proposed site area				
Garden Organics	N/A					
Bricks	N/A				OPTION NOT AVAILABLE: These materials must be re-used or separated on or off site and sent for recycling.	
Tiles	N/A					
Concrete	< 2 t	Levelling parking and footpath areas.				
Timber*	N/A					
Plasterboard	N/A					
Metals*	N/A					
Asbestos	N/A					
Other waste*	< 1 t	Stone gravel – filling, levelling, landscaping				
Estimated Total % Recovered	100%					

Attached site map highlights the area where ‘construction’ will be performed. The construction is limited to site preparation (including digging and concreting of foundations for the stack and the scrubber).



Construction waste will be minimised by mixing and pouring concrete in accordance with the areas and amounts needed. Excess will be used onsite for backfill of potholes and in and around the foundations.

WMP Checklist for Construction

Have you included the following:	Applicant Tick
<p>A site plan showing:</p> <ul style="list-style-type: none">• The structures to be demolished.• Potential storage areas for waste to be reused, recycled, or disposed of.• Materials storage	<div>X</div>
<p>The table on the previous page, completed in accordance with ‘Chapter 2 – Construction’ in the guidelines.</p>	<div>X</div>

Section 5 – On-going waste management for non-residential and mixed use developments

The submission calls for the off-site construction of the vessel and new infrastructure. The ongoing waste management for these sites aligns with the existing and operational industrial waste management plan. The quantity of waste and types of waste generated by the plant will be of the same magnitude as the prior system, the only difference is the efficacy of the treatment gases.

The odour treatment system will capture and treat (to required levels) odours made in the grease-making process. The primary source of water that is captured and treated is steam generated when the acids and bases react at elevated temperatures. Throughout the reaction, this steam naturally vents from the vessels, ultimately leaving behind the desired soap structure. The other fumes generated in the process are transported with the steam.

As the steam and fumes leave the vessel, they will be captured by the odour treatment system. The steam is expected to condense back to water and will be transported through to the treatment vessels in the system. The main fume treatment vessel is a counter-flow scrubber. This consists of a vertical tower through which contaminated gas flows upward while water flows downward. Inside the tower, the gas passes through a packing material designed to increase contact between the rising gas stream and the descending water. As the gas and liquid move in opposite directions, water droplets capture and dissolve or entrap airborne contaminants. These particles and soluble gases are then carried away by the water. The material that collects at the bottom of the scrubber will be drained, tested, and treated as necessary. By continuously providing fresh water at the top and allowing treated gas to exit at the top of the column, the counter-flow design ensures efficient mass transfer and effective removal of pollutants. This system has been designed by The Odour Unit who are considered industry experts and well regarded by relevant regulatory bodies.

The wastewater that is captured by the treatment system will then go through our standard waste water treatment process. For the scrubber tank this means taking a sample of the water and testing it for our Sydney Water discharge requirements and then treating as necessary to allow a safe discharge into the trade wastewater discharge point. If it is unable to be corrected, the wastewater is pumped into IBCs and then stored until a licenced contractor can collect and process it.

There will be oil and solids that are captured in the odour treatment system. The bulk of these will be knocked out in the first of the treatment vessels after which the waste streams will be collected from the bottom of the vessel and then packaged up for a licensed sub-contractor to collect. If significant levels of water are present, it is processed through our oil-water separation equipment. The water is treated appropriately, and the solids and oils are then ready for collection.

Our existing site has two skip bins for recyclable and general waste removal from the premises. All rubbish of a non-industrial nature (i.e. – originating from the office space) will be disposed of in these bins on a weekly basis.

Liquid waste streams will be collected in alignment with the type of liquid waste (organic solvent such as oils and petroleum solvents [mineral spirits and such] or aqueous waste) and disposed of in our existing liquid waste disposal streams. These areas are located behind the manufacturing plant building near our shipping and receiving area. Disposal is done in accordance with certified removal agencies, depending on the type of liquid disposal occurring.

All waste streams from the replacement odour treatment system aligns with our existing industrial material handling and waste management systems, and thus no new additional waste streams are expected. Our existing protocols and systems are in place and can accommodate the limited quantities to be generated herein when compared to the size and scope of the manufacturing facility. The existing facilities comply with Waste Storage Area design and location requirements as described in Chapter 5.2 and 5.3, respectively.

Type of development: Improvement to odour treatment system

Number of commercial premises: No new existing buildings

Number of Waste Storage Areas: Three existing storage area structures on site

WMP Checklist

Do your architectural/landscape plans include the following:	Applicant Tick	N/A
Waste Storage Area design requirements (Chapter 5.2.)	<input checked="" type="checkbox"/>	-
Waste Storage Area location requirements (Chapter 5.3.)	<input checked="" type="checkbox"/>	-