Plan Of Management – Tyrex Australia Pty Ltd

68 Victoria Street, Smithfield
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CONTENTS

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INTRODUCTION

The proposed use of the Site at 68 Victoria Street, Smithfield is as a 'waste or resource transfer station' operated by Tyrex Australia Pty Ltd (**Tyrex**). This Plan of Management has been prepared to accompany a Designated Development Application currently under assessment with Fairfield City Council for 'waste or resource transfer station' that will be responsible for:

- Receiving, consolidating and onforwarding of approximately 30,000 tons of waste tyres (rubber) per annum. As part of the 30,000 tonnes, approximately 5-10 tonnes per week of thin wire (being pure steel) which will be collected via magnets during processing and taken to the steel mills for further processing.
- The proposed use seeks consent for the tyre shredding and crumbing operations at 68 Victoria Street, including the installation of new shredding equipment..

No liquid, hazardous, restricted solid waste or general solid waste (putrescible), as defined in the Protection of the Environment Operations Act 1997 (NSW) or the EPA's Waste Classification Guidelines Part 1: Classifying Waste (2014), will be accepted at the facility.

- Product is received by utes and trucks at the facility. Regular delivery activities will be via 12.5m long Heavy Rigid Vehicles (HRVs). The largest vehicle to access the site will be a 13.9m semi-trailer, unloaded inside the enclosed transfer station building, placed into allocated bays, processed and then loaded onto trucks for distribution.

Tyrex utilise an environmentally friendly approach and seek to recycle as much material as possible to avoid unnecessarily contributing to landfills.

This is consistent with the 'Waste Less, Recycle More' strategy put out by the EPA.

In particular, the 'Waste Less, Recycle More' initiative seeks to:

- *"Encourage local communities to think directly about waste avoidance, recycling, littering and illegal dumping;*
- *Deliver conveniently located, value-for money waste infrastructure to make it easier for households and business to do the right thing."*

The recommendations from the 'Waste Less, Recycle More' initiative included the following:

"*General recycling:*

- *Reinforce and reward existing positive behaviours, the focus on correcting misconceptions.*
- *Provide a strong (or stronger) reason to act to encourage and convince those who are either sceptical or misinformed of the benefits.*
- *Use a 'persuasion-based social marketing campaign to influence attitudes and reinforce positive behaviours to ensure they continue."*

"Problem waste:

- Highlight the existing facilities and services for correctly disposing of less common household, renovation and chemical waste.

- Consider that many people dispose of these materials infrequently, so information must be available as needed."

In accordance with the 'Waste Less, Recycle More' initiative, Tyrex adopts eco-friendly methods to process and recycle waste received. Further, tyrex is located in a prime location to service the wide range of clients seeking a local, convenient and friendly waste transfer station. The location in Smithfield incentivises the public and businesses to 'do the right thing' when it comes to recycling and disposing of their waste.

The purpose of this Plan of Management is to:

a. Identify the waste types accepted at the Site;

b. Identify the waste types that are not accepted at the Site;

c. Describe the general waste handling process;

d. Describe the plan of management for each waste stream received at the Site;

e. Describe the plan of management for dealing with unacceptable waste on Site;

f. Identify the Personal Protection Equipment to be worn;

g. Identify the training requirements for Tyrex staff; and

h. Identify the requirements for review of this Plan of Management.

SITE OPERATIONS MANAGER

Table 1 identifies the Site Operations Managers responsible for the implementation of this Plan of Management.

In particular, Site Operations Managers are responsible for:

- Implementing the procedures identified in this Plan of Management;
- Ensuring all staff are trained in accordance with this Plan of Management;
- Ensuring that training is updated annually and records of training are kept;
- Ensuring that all staff wear appropriate Personal Protection Equipment when handling waste at all times; and
- Ensuring that loads of unacceptable waste are rejected.
- Communicate any adjustments or updates to the environmental management on site to employees
- Take appropriate action in response to any stakeholder complaints or expressions of concern.
- Act promptly to implement and record corrective actions for non- conformances.
- Completing required and voluntary environmental reporting.
- Oversee machinery maintenance is undertaken at appropriate times and when in need.
- Training to be made compulsory for fire safety and prevention on site including hot works permits, emergency response and use of fire suppression equipment

All questions should be directed to the Site Operations Manager.

Table 1: Site Operations Manager contact details

Name	Title	Contact No.
Zafar Mahmood	General Manager	0414 982 402

ACCEPTED WASTE TYPE

Tyrex accept rubber products. The material type accepted on site is defined under the POEO Act as Special waste 'Waste Tyres'

The following waste types that are received at Tyrex include:

- Tyres and rubber,
- Thin wire from tyres.

Table 2 outlines the types of waste which is proposed to be accepted at the facility, and which is sought as part of the designated development application.

Type of Material	Processing or Storage	Location on Site for Storage	Bins on Site or Stacked	Volume Per Annum Tonnes	Maximum Daily Volume Tonnes	Maximum Weekly Tonnes
Waste Tyre (rubber)	Processing/Storage	Refer plans	Stacked/Bagged	30,000	82	570
Thin wire (from tyres)	Processing/Storage	Refer plans	Bales and bags	520	1.2	5-10

This will consist primarily of heavy truck and bus tyres, light truck tyres and passenger tyres.

There will be no importation of organic materials, food, household liquids, asbestos, chemicals, hazardous materials, building waste or concrete. No asbestos or materials containing asbestos are accepted onsite and if identified will be rejected.

No batteries are collected and stored. No Lithium batteries will be brought to the site.

The tyres typically arrive from small vehicles, rigid trucks and the occasional semi-trailer.

No liquid, hazardous, restricted solid waste or general solid waste (putrescible), as defined in the Protection of the Environment Operations Act 1997 (NSW) or the EPA's Waste Classification Guidelines Part 1: Classifying Waste (2014), will be accepted at the facility.

GENERAL WASTE HANDLING PROCESS

1.1 General Cradle to Grave Operations

The following highlights the cradle to grave waste processing at the facility as proposed.

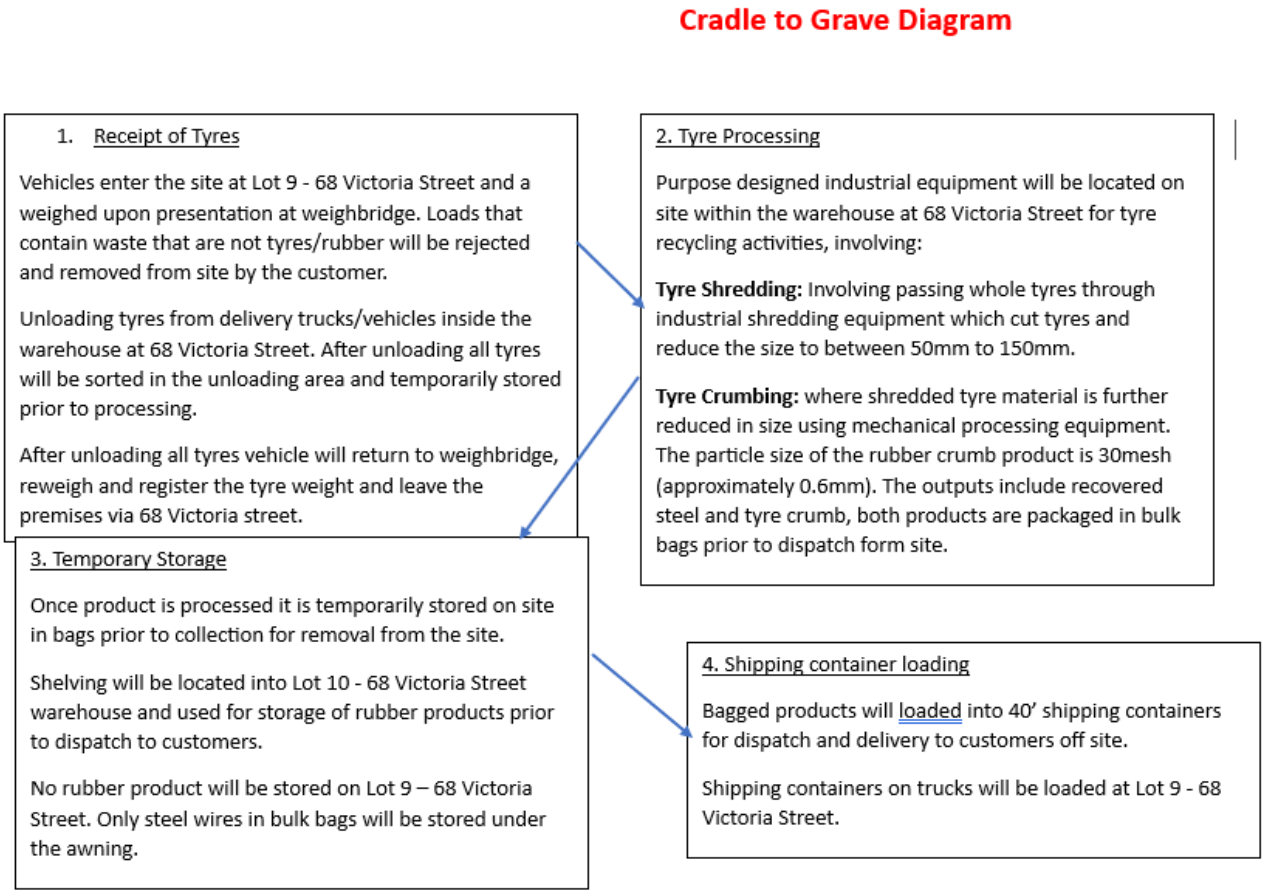

Figure 1: Cradle to grave diagram waste processes

The process is also described as follows:

- The truck enters the site, is visually checked and weighed on the weighbridge.
- The truck enters the rear of the building (no.68) and occupies the loading area, and the truck is unloaded.
- The material is unloaded is sorted in the building and placed into defined stockpiles based on the tyre type.
- Any material found suspicious will be inspected by the waste inspector prior to unloading and allocated at the quarantined bay. The inspector will make sure that the waste is free of any contamination. Also, the waste will be assessed at quarantined area. If any hazardous material or asbestos found in the delivery that will be immediately returned to the tyre suppliers. The inspector will write and record a

detailed report about the material received including identification of waste received, vehicle registration number and company name. Tyrex will have a written agreement with tyre suppliers to collect any such waste if found in their deliveries.

- Tyres are processed/shredded, and thin wire from tyres is separated from rubber.
- Once shredded, rubber output is bagged. Refer to Figure 14.

Figure 2: Shredded tyres/rubber end product.

- Once bagged, rubber is transferred to a storage stockpile ready for loading into a shipping container for removal from site.

The number of truck movements will be between 5-6 deliveries per day.

Receipt of Tyres

Unloading tyres from delivery trucks inside the warehouse at 68 Victoria Street or the designated loading and unloading area in Lot 9. After unloading all tyres will be sorted in the unloading area and temporarily stored prior to processing. No storage of tyres will be external to the warehouse building.

Tyre Processing

Purpose designed industrial equipment will be located on site for tyre recycling activities, involving:

- Tyre Shredding: Involving passing whole tyres through industrial shredding equipment which cut tyres and reduce the size to between 50mm to 150mm.
- Tyre Crumbing: where shredded tyre material is further reduced in size using mechanical processing equipment. The particle size of the rubber crumb product is 30mesh (approximately 0.6mm to 2mm). The outputs include recovered steel and tyre crumb, both products are packaged in bulk bags prior to dispatch form site.

Temporary Storage

Shelving will be located into 68 Victoria Street and used for storage of rubber products prior to dispatch to customers.

Shelving will also be located under the proposed awning for storage of thin wire at Lot 9 68 - Victoria Street. No rubber products will be stored at Lot 9 68 - Victoria Street.

Shipping container loading

No shipping containers will be located on site permanently.

Only 1 shipping container will be on site at any one time for transportation of material. The dimension of the shipping container will be 6m (l) x 2.4m (w) x 2.6m (h).

Bagged products will be loaded into 40' shipping containers for dispatch and delivery to customers only and will be transported off site immediately.

All employees are required to wear appropriate Personal Protection Equipment (PPE) when handling any waste. PPE includes safety boots, gloves, high visibility clothing and ear protection (ear-plugs).

Other Waste Streams

Other than tyres and tyre products, waste streams at the site will also include:

- General waste – where office waste, lunchroom waste, and non-hazardous waste is deposited to a site skip bin. The skip bin is routinely serviced by a waste contractor.
- Waste oil – where waste lubricant oil from equipment maintenance is collected in drums. Waste oil drums are routinely collected by a waste service provider.

Co-mingled recycling – the site is currently investigating options for collection of co-mingled recycling streams (paper, cardboard, plastics) from the site.

1.2 Operational Details

- The proposal seeks consent for (24) hour operation, (7) days a week as follows:
  - Shift 1: 6:00am to 3:00pm
  - Shift 2: 3:00pm to 12:00am
  - Shift 3: 12:00am to 6:00am

- Tyre processing equipment will operate during Shifts 1 and 2, whereas site cleaning, preparation and maintenance will occur during Shift 3.

1.3 Weighbridge Ingress and Egress

- All vehicles which enter the premises will be weighed over the weighbridge upon entry and exit in accordance with clause 29 of the Protection of the Environment Operations (Waste) Regulation 2014, and a record will be kept by the site operator.
- Clear access to the weighbridge will be provided at all times to allow ingress to the site.
- The proposed car parking on site is for staff only, so when they arrive for their shift they will park their vehicles until when they exit at the end of their shift. Therefore, no conflict with the weighbridge operation is likely to occur as the car parking is not available to the public visiting to the site.
- When the public do visit in cars for drop off of materials they will go directly onto the weighbridge and be directed to the relevant building for unloading of materials. They will not be able to park their cars at any time.

1.4 Machinery Operated on Site

- The site operates 3 x forklift for materials handling, this machine is powered by LPG. The majority of use of this equipment is indoors.
- Shredding tyres - This step of the process effectively uses industrial sized ‘knives’ to shear tyres into smaller pieces (approx. 50mm to 150mm in size).
- Crumbing equipment - to further reduce the tyre shred into fine particles and granules (typically less than 2mm in size). This equipment is a closed-circuit system that includes a purpose built industrial air filtration system designed to capture dust generated from the crumbing process.
- A water-cooling system - to extract heat from the milling and crumbing process. The heat extraction system involves a closed system, with heat exchange occurring through a water tank kept on the site.

The processing equipment is powered by electricity supplied to the site.

PROCEDURE FOR ASSESSING INCOMING LOADS AND PROCESSING

The process of assessing incoming product is described step by step below. Loads are only accepted on site during Shift 1 and 2 only, and no loads are accepted during Shift 3.

Step	Process
1	- The vehicle/truck enters the site at Lot 9 - 68 Victoria Street, is visually checked and weighed on the weighbridge. - All vehicles which enter the premises will be weighed over the weighbridge upon entry and exit in accordance with clause 29 of the Protection of the Environment Operations (Waste) Regulation 2014, and a record will be kept by the site operator. - Weighbridge operator to provide driver with relevant paper work. - After weighing, the waste will be carried out to the unloading bays if any material is found suspicious/potentially contaminated and it will be inspected by the waste inspector allocated at the quarantined bay. The inspector will make sure that the waste is free of any contamination. Also, the waste will be assessed at the quarantined area. If any hazardous material or asbestos is found in the delivery it will be immediately returned to the tyre suppliers. The inspector will write and record a detailed report about the material received including identification of waste received, vehicle registration number and company name. Tyrex will have a written agreement with tyre suppliers to collect any such waste if found in their deliveries. - Spotters are Tyrex employees who are to be fully trained in accordance with this Plan of Management and in the identification of acceptable and unacceptable waste types at the facility. - If the waste is assessed by the Spotter as unacceptable, the Spotter will follow steps outlined in the following section of the POM. - The driver will not be permitted to unload the vehicle; - Spotter will inform the Site Manager who is responsible for notifying the customer - The driver will be directed to exit the facility. - If a load is rejected because it contains unacceptable product it must be registered in the Rejected Load Register.
2	<u>Accepted Load</u> The vehicle/truck enters the building and occupies the loading area, the site manager will be responsible for directing the vehicle driver to the appropriate area. <u>Unaccepted Load</u> The vehicle/truck enters the building and the site manager will be responsible for directing the vehicle driver immediately to the exit.
3	Once unloaded the truck leaves, via the exit at Lot 10 - 68 Victoria Street.
4	The material unloaded is sorted in the building and placed into defined stockpiles.

STORAGE OF ACCEPTABLE WASTE AND TRANSFER OFF SITE

The subject site has capacity to accommodate up to 30,000 tonnes per year.

- Once sufficient material is stored, it is processed and shredded and then bagged and stored in stockpiles ready for transfer offsite.
- Storage of bagged product is to be undercover at all times.
- Loading of rubber products to leave the site is conducted with the use of a forklift.
- The loading of trucks will not take place before 6:00 am and after 12 midnight.
- Once loaded into shipping containers on trucks for transport, all rubber is transported off site to the allocated destination.
- Steel/wire from tires will be transferred to resource recovery facilities that are lawfully capable of accepting that material for processing.

UNACCEPTABLE WASTE HANDLING PROCEDURE

Asbestos Waste

Tyrex does not accept asbestos. In the event of asbestos being found in a load, the entire load is defined as asbestos waste as per the POEO act. The asbestos waste must be reloaded and taken to a facility that can lawfully accept and dispose of it. This will occur within 72 hours of identifying the asbestos waste.

All other non-conforming waste must not be held on site for more than two weeks.

Unacceptable waste types

Tyrex does not accept asbestos, toxic waste, hazardous waste, liquid waste or medical waste (unacceptable waste) at the Site.

All Tyrex employees are trained in accordance with this Plan of Management and are therefore deemed to be qualified “Spotters” of unacceptable waste.

As such, it is the responsibility of all Tyrex employees to identify and address unacceptable waste on Site appropriately and as soon as possible.

Any questions should be directed to a Site Operations Manager.

In the event that unacceptable waste arrives on Site, Tyrex will employ the procedures detailed in below to ensure that the unacceptable waste is safely and efficiently handled.

If hazardous wastes are detected they’re not accepted, and the customer is told to remove them from site.

Unacceptable waste identified after vehicle weighed in and before vehicle unloaded

The following steps outline the process to be followed when a Spotter identifies that unacceptable waste has arrived on Site after vehicle weighed in but before vehicle unloaded.

1. The load will be rejected.
2. The driver will not be permitted to unload the vehicle.
3. Spotter will mark the docket as a “Rejected Load”.
4. The Spotter will take photos of the docket, the vehicle registration and the waste (only if possible).
5. The Spotter will record the load in the Rejected Load Register.
6. The Spotter will ask the customer to sign the docket marked as a rejected load.
7. Spotter will inform Site Operations Manager who is responsible for notifying the customer.
8. The driver will be directed to exit the Facility.

Note: At any time, the Spotter may request the assistance of another employee or Site Operations Manager.

Unacceptable waste identified after waste is unloaded (e.g. green waste, tyres, discrete bags of food)

The following steps outline the process to be followed when unacceptable waste is identified after waste is unloaded (e.g. green waste, metal, discrete bags of food).

1. Where possible, the waste will be separated out from the load in a safe manner.
2. The waste will be placed in a secure, designated bin/cage/area (as appropriate) that is labeled and segregated from other waste. These segregated bins/cages/areas will be emptied as often as possible. The waste will be taken to designated quarantined area and segregated in labelled bins and bags.
3. If any hazardous material or asbestos is found in the delivery it will be immediately returned to the tyre suppliers. The inspector will write and record a detailed report about the material received including identification of waste received, vehicle registration number and company name. Tyrex will have a written agreement with tyre suppliers to collect any such waste if found in their deliveries.
4. The remainder of the load will be accepted.
5. The driver will be issued with a warning about the acceptable waste types.
6. Where the unacceptable waste is unable to be segregated from other waste in the load or where the unacceptable waste is too voluminous to be able to segregated, the Spotter will use their discretion (and that of Site Operations Manager where required) to decide whether to partially accept or reject the load (e.g. loads will be rejected where the load is overwhelmingly odorous or where the unacceptable waste is too voluminous and mixed in the load).
7. Spotter will inform Site Operations Manager who is responsible for notifying the customer.

Unacceptable hazardous and/or contaminated waste identified after waste is unloaded (e.g. chemical, food, clinical)

The following steps outline the process to be followed when unacceptable hazardous and/or contaminated waste is identified after waste is unloaded (e.g. chemical, food, clinical, floc).

1. The Spotter will ensure the safety of all people on site by handling the waste in the safest way possible.

2. Where the waste is identified as asbestos the load must be wet down immediately and isolated from other waste. All employees dealing with the load must be wearing the appropriate PPE at all times.

3. Where it is safe to do so, the load will be reloaded onto the vehicle.

4. The load will be classified as rejected.

5. Spotter will mark the docket as a “Rejected Load”.

6. The Spotter will take photos of the docket, the vehicle registration and the waste.

7. The Spotter will record the load in the Rejected Load Register.

8. The Spotter will ask the customer to sign the docket marked as a rejected load.

9. The driver will be directed to exit the Facility.

10. Where it is not possible to reload the waste onto the vehicle safely, the waste will be treated by Tyrex staff in the safest way possible.

11. Where the waste is contaminated with asbestos, after following step 2, the waste will be placed into a lined bin that will be sealed upon completion. The bin will be quarantined in a clearly marked “Quarantine Area” of the site. The bin will then be transported to a licensed facility as soon as practicable.

12. Spotter will inform Site Operations Manager who is responsible for notifying the customer.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

All Tyrex employees will be trained in accordance with the following instructions to minimise the risk of harm.

1. Direct handling of any materials will be avoided unless every component can be readily identified as safe to handle.
2. Waste material is only to be handled when wearing and using appropriate PPE including gloves, high visibility clothing and safety boots. Tyrex employees also have access to earplugs, dust masks and eye protection.
3. Material that falls into the category of 'UNKNOWN' is to be treated as **high risk**, and the following steps will be followed:
    a. Avoid handling by hand.
    b. All protective clothing is to be worn – MINIMUM requirements are:
    i. Heavy sole footwear,
    ii. One piece long sleeve overalls,
    iii. Full face shield,
    iv. Heavy leather gloves with liner, and
    v. If required, a disposal outer covering with hood.
4. If contamination or sharps are identified the Site Operations Manager is to be present during cleaning or handling of the material.
5. Where practical, material is to be removed at arm's length by the use of shovels, scrapers and other mechanical means approved by the Site Operations Manager.
6. If sharps are found and they cannot be practically removed with a mechanical aid or tool:
    - Pick up the sharp with TONGS (NEVER WITH YOUR HANDS) by the blunt end, away from the needle point.
    - If the plastic cap is nearby DO NOT try to recap it.
    - Place the sharp in a strong screw top plastic container or custom-made yellow needle disposal container if available.
    - Always take the container to the sharp. Avoid unnecessary handling.
    - Never hold the container whilst disposing of the sharp.
    - Make sure the container is sealed tightly.
    - Arrange for disposal through the Site Operations Manager.

7. No person is to be directed to work in any manner other than described in this work instruction unless the Site Operations Manager is satisfied the area is clear.
8. Should any person be accidentally pricked by a sharp, the following steps are to be taken.
    a. Where possible, retain the sharp that caused the injury.
    b. Gently squeeze the wound until it bleeds.
    c. Wash the infected area with soap and water.
    d. Apply antiseptic and a Band-Aid.
    e. Contact the Company Doctor (refer to Office for the number).

TRAINING AND REVIEW

All Tyrex employees will be trained in accordance with this Plan of Management. Tyrex will keep a record of training that is undertaken.

Training will be updated at least annually for every employee.

This Plan of Management will be reviewed and updated annually, or when required.

FUTURE AMENDMENTS TO PLAN OF MANAGEMENT

Upon adoption of this Plan of Management, any future amendment of the Plan of Management is to be provided to Fairfield Council in writing, to seek written approval from Council that the proposed amendments are acceptable and in accordance with any relevant development consent for the site.