

Environmental Management Plan (EMP)

Provide a detailed EMP or site-specific plan to demonstrate that appropriate environmental management practices are identified and implemented during the set-up, installation and modification of premises, and its operation through to site decommissioning and closure.

Name: RECYCLE TYRES & METAL PTY LTD

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Recycle Tyres and Metal Pty Ltd is a registered business seeking to obtain an Environmental Protection License for the collection, transport, storage and processing of used tyres. The intention of establishing the service is to provide a sustainable approach to disposal of end of Life Tyres in the Northern Territory. The current estimates are that only 12% of used tyres are recovered for recycling in the Northern Territory. Approximately 4,300 tonnes of material is landfilled, stockpiled or illegally dumped each year.

Recycle Metal and Tyres Pty Ltd aims to contribute to the responsible recycling of used tyres to divert them from landfill and to reduce fossil fuels wasted.

Recycle Tyres and Metal Pty Ltd intends to establish the following service:

1. Run a mobile tyre collection service for remote landfill operators and tyre retailers in the Northern Territory.
2. Bale used tyres on a proposed site at 37 Bishop Street, Woolner to reduce the size of tyres to minimise both storage and transportation costs and reduce vehicle movement and maximise profit.

This document provides the environmental management, monitoring and reporting practices for the various components of each service. It will be annually reviewed to ensure that best practice management continues to be incorporated into the services. An important aspect of best practice is adaptive management, which includes the need to regularly review management documentation associated with the operation. This involves the analysis of all information, practices and risks described in this document against best practices and taking steps to improve these over time. The key plans included in this

document are:

- Environment Risk Assessment and Management Plan
- Environmental Monitoring Program (Section 5);
- Emergency Fire Response Plan

Recycle Tyres and Metal Pty Ltd is committed to implementing best practice environmental management to reduce the potential for environmental impacts, to reduce the risk of any liabilities associated with environmental impacts and to maintain strong relationships with neighbours, clients, customers and government agencies.

Guidance materials used in the development of this document include:

- Guideline for the Preparation of an Environmental Management Plan (NT EPA, 2015); and

- Best Practice Guidelines for Tyre Storage and Fire and Emergency Preparedness (Tyre Stewardship Australia, 2017).

Legislation

The guidelines for the operation and undertaking of the activities is provided by relevant legislation.

Waste Management and Pollution Control Act- The governing legislation for the collection, transportation, storing and processing of tyres. This includes the requirement for a license where these activities are undertaken on a commercial basis.

Fire and Emergency Act (and associated Fire and Emergency Regulations 2017; NT)- Section 7A of the Regulations include details of requirements for “stacked tyres” such as heights dimensions and separation distances.

Recycle Tyres and Metal Pty Ltd Service

Recycle Tyres and Metal Pty Ltd intends to operate a tyre baling service in accordance with table 1.

Table 1

Transporting times	Monday to Saturday, 7.00 am to 5.00 pm, all year (except public holidays)
Storage of used tyres	Maximum 250 tonnes (outdoor storage)
Processing Volume	Estimated 1,500 tonnes per annum up to approx. 30 tonnes per week
Operational times (Tyre Baler)	Approximately 20 hours per week, Monday to Saturday, 7.30 am to 5.00 pm, all year (except public holidays)

Site location and layout

The site, including access points, has been selected and configured to minimise the risks of impacts to the environment and human health. Key considerations were drawn from the Best Practice Guidelines for Tyre Storage and Fire and Emergency Preparedness (Tyre Stewardship Australia, 2017) and relevant legislation.

Site Layout

The site has been configured in a manner that meets all legislative requirements and best practice. The location of the shipping containers for loading and storage whilst awaiting collection has its entrance located within the confines of the shed and baling/ processing area. Any tyres storage will be in compliance with anticipated stockpile sizes, their configuration on site and required separation distances.

The site is large enough to accommodate necessary infrastructure including a baling machine and shipping containers. As well as a collection and drop off area where the tyres are baled during working hours upon delivery to the depot/drop off point. The site is zoned GI General Industry.

Tyres will be stored in accordance with the requirements of the NT Fire and Emergency Regulations and the NT Bushfires Management Act. The site is located within the General Industry Area of Woolner that has a number of service industries of a similar nature.

Access to utilities for firefighting.

The site has the following attributes:

Site entry points have at least 4 m clearance with access roads designed for large vehicles including large emergency vehicles and their weight limits, including:

- Access points on opposite ends of the site (ideally either side of the likely path of a potential smoke plume);
- A rapid entry feature to access points to allow quick access for emergency services.
- Adequate hardstand areas to prevent emergency vehicles becoming bogged and unable to access the site; and
- Vegetation close to the site is managed on a regular basis.

There is a drop off area which will be utilised for short term storage of tyres whilst they await baling. It is intended to clear all areas of tyres dropped off daily and to bail them with a short turn around time.

The storage area meets requirements of the NT's Fire and Emergency Regulations. There is not anticipated to be any stockpiles. All tyres stored on the premises will comply with the Emergency Regulations which state that stockpiles must be either be separated from each other, and from the boundary of the site, by 10 m, or by walls. All tyres are intended to be stored within the shed and processing area.

The surrounding area comprises gravelled area to ensure that any heavy vehicles have access and do not get bogged.

Supply of used tyres

Recycle Tyres and Metal Pty Ltd intends to collect and receive used tyres from land fill centres, tyre retailers, trucking companies and other private sources where stockpiles are located. Recycle Tyres will enter into agreements with providers to access and remove end of life tyres.

Used tyres will be collected and transported in either closed shipping containers or in an enclosed bodied truck on a daily, weekly or as needs basis depending on the source. Tyres may also be delivered to the site by tyre retailers in their own vehicles.

Storage of tyres

Any storage of tyres will only be upon delivery and whilst awaiting baling or during maintenance times. The storage area is enclosed and forms part of the baling area and shed containing the processing/baling area. There is no scope onsite to create a storage pile 45 m long and there will not be any storage above 3m.

Any stockpiles will adhere to section 7A of the Northern Territory's Fire and Emergency Regulations 2017 and will be stored in accordance with the following guidelines.

Maximum width of base-5m

Maximum length of base-45 m

Maximum height – 3 m

Minimum distance between stacks and boundary – 10 m and

Maximum side slope (no steeper than) 1:1.

All tyres will be stacked on their sides and not stacked on their treads.

Processing of end of life tyres.

The baling machine is capable of baling large volume of tyres. It is anticipated that the baler will meet the demand for baling tyres delivered. If this is not possible then the baler will be utilised for longer periods of time to ensure that the tyres received each day are baled.

At times the Baling process will not be able to be carried out for example when maintenance or repair of plant and equipment is being carried out.

When there is low demand for processed/baled tyres and also during adverse weather.

If the Baling operation is inoperable the collection and receiving of tyres will be limited to ensure there is no need to stockpile.

Transporting tyres off site

Once baled/processed the tyres will be loaded into shipping containers.

The loading of tyres will be carried out manually and also with the use of a fork lift.

The shipping containers loaded with tyres will be dispatched to Carroll Engineering Pty Ltd on a basis depending on the output of the service.

Fire extinguishing

Dry chemical powder ABE extinguishers will be stationed within close proximity to the baler (within 2 metres) and will be held onboard on each vehicle

There is also town water supply onsite with numerous delivery points.

Personnel

The site operation will be operated by up to four staff.

Evaluation and assessment

An assessment of the Environmental Risks and actions necessary to mitigate risk have been collated below.

1. Contamination of soils and surface waters from water used for firefighting purposes in the event of a tyre fire.
2. Dust from trucks driving on the site;
3. Toxic smoke from tyre fire affecting air quality;
4. Increased noise levels from increased traffic to and from the site; and
5. Fire spreading to neighbouring properties and causing air, water and soil pollution.

In respect of the above.

1. The risk of fire is minimised through the storage of tyres and stockpiles are separated from each other, and from the boundary of the site, by not less than 10 m at any point. Ensuring that stockpiles are located on flat and level parts of the site.
2. Dust from trucks entering and exiting the site (particularly during the dry

Season) This will be minimised through using gravel on the driveways and speed of trucks will be kept to a walking pace to reduce dust.

3. Toxic Smoke from a tyre fire is minimised through establishing work practices which minimise stockpiling of tyres and the baling and removal of tyres on a regular basis. This will minimise the volume of tyres that could burn in a fire and will not create an unmanageable fire risk for fire and emergency services.

4. Increased noise levels from increased traffic to and from the site. It is anticipated that the level of noise will not increase significantly. There already being similar industry in the area. That is warehousing of tyres where trucks deliver and collect tyres on a regular basis throughout a working day.

Fires and Associates Air Quality, Water Way and Soil Impacts.

Tyres stored on site could burn if set alight, releasing toxic smoke into the air. The most likely causes of a tyre fire are:

- If the tyres are deliberately or unintentionally lit by a person;
- By a neighbouring vegetation fire that spreads to the tyre stockpile;
- By a vegetation fire from within the site.

Vegetation fires in the northern parts of the NT are more likely to occur during the dry season (April to October). The site is located within the Darwin Fire Protection Zone and therefore must adhere to the requirements of the NT Fire and Rescue Services.

These requirements have been incorporated into the design and maintenance of the site and impact mitigation measures for the operation. Groundwater is unlikely to be affected by a tyre fire, however localised contamination of the surface soils and water from firefighting foams and water may result. Tyres may also release oily compounds when burnt. In the event of a fire, inspection of the localised area will be undertaken. Any contaminated soil, as a result of a tyre fire, will be excavated and appropriately disposed or remediated on site with approval and consultation from the NT EPA.

An Emergency Fire Response Plan has been developed and includes procedures to be used for fire emergencies. It will be located:

- On the site;
- In each vehicle (trucks and company vehicles); and
- With the NT Fire and Rescue Service (Darwin branch).

Employee Inductions and Training

Employee inductions will be conducted for all staff.

The inductions will include the impact mitigation measures as well as the fire safety and emergency procedures as well as the Emergency Fire Response Plan. If considered necessary, Safe Work Procedures may also need to be developed for staff.

Annual training for all staff will also be undertaken for the Emergency Fire Response Plan.

Site rehabilitation

The activities involved with the operation, including the storage of used tyres on the site, is not expected to have any long-term impact on the site. The site will be returned to its original state should the operation cease. In the event of a tyre fire and there is soil contamination, Recycle Tyres and Metal Pty Ltd will undertake necessary soil sampling and remediation activities if required by the NT EPA.

Monitoring program

The management will at all times assess and maintain responsibility in respect of the environment. This will be achieved by addressing any complaints and on a daily basis checking for leaks of oils etc, monitor air quality, noise levels, soils.

Assessing fire risks by minimisation ensuring there are no fires on the premises, no smoking and no flammable materials located in close vicinity to machinery or other sources of ignition.