

## 5 Environmental Risk Assessment

### 5.1 STORMWATER CONTROLS

There are no additional activities or works onsite which will impact on the existing stormwater management system.

All activities in relation to listed waste storage and transfer will occur within the existing industrial building (solid waste); DG storage container; tanker / container storages (with bunded transfer areas as required); which will avoid possible contamination of stormwater runoff.

The stormwater controls incorporated in the existing design include:

- The operational areas of the site will be concreted / bitumen surfaced;
- General runoff from clean areas of the site will be conveyed as surface flows and pass across landscaped areas or designated overland flow paths which will act as buffers prior to lawful discharge to downstream properties;
- Handling of waste will be undertaken within the solid listed waste storage areas and/or bunded loading / unloading areas, which will prevent the ingress of and/or release of contaminated water to surface waters;
- Bunded areas will be subject to inspection prior to any discharge of waters, with any contaminated waters recycled via the existing waste oil storage tanks.

### 5.2 SPILLAGE

Possible sources of contamination include:

- Solid or liquid waste spillage during storing and transfer operations.

Operating procedures, including site-specific inductions for all staff and truck drivers will be implemented to minimise potential spillages.

The major spillage controls incorporated in the design include:

- The handling of waste will occur within the solid listed waste storage areas and/or bunded loading / unloading areas;
- Physical containment of waste oil and coolant storage in tankers;
- Spill kits appropriately located on site at transfer and storage areas;
- Adherence to Emergency Response Plan (**Appendix D**) for any hazardous spill or incident.

### 5.3 AIR EMISSION CONTROLS

Possible sources of air and odour emissions from activities on the site include:

- Road dust on trafficked areas;
- Dust and odour from material received;
- Venting of tankers during loading / transfer.

The highest likelihood of odour generation would occur during transfer of waste oil from container / tanker to tanker.

The primary source of odour is venting of the “head space” air from the storage tanks during unloading or the “head space” air in the bulk tanker during loading.

Operating procedures, including site-specific inductions for all staff and truck drivers will be implemented to minimise potential emissions.

The major air and odour emission controls incorporated in the design include:

- Proper maintenance of all on site equipment and vehicles;
- Strict waste acceptance criteria will be employed;
- Minimising on-site odorous waste storage;
- Handling of waste to occur within solid listed waste storage areas and/or bunded loading / unloading areas;
- Waste sorting and transfer areas to be cleaned regularly;
- All trafficked areas to be maintained as concrete / bitumen;
- Traffic, storage & transfer areas to be cleaned regularly;
- Keeping the trucks clean.

#### 5.4 NOISE CONTROLS

Possible sources of unacceptable noise emissions from the site include:

- Truck & equipment movements and operations; and
- Handling of waste.

The major noise emission controls incorporated in the design include:

- Location of the site within General Industry zoned land;
- Adequate buffer distances between potential noise sources and receivers;
- All handling of waste to occur within the solid listed waste storage areas and/or bunded loading / unloading areas.

Operational measures, which will also be employed to limit noise emissions, include:

- Proper maintenance of all on site equipment and vehicles;
- All plant and equipment including trucks will be fitted with efficient exhaust mufflers;
- Where possible the receipt of waste materials will only occur during normal operating hours.

Operating procedures, including site-specific inductions for all staff and truck drivers will be implemented to minimise potential emissions.

#### 5.5 LITTER CONTROLS

Operating procedures, including site-specific inductions for all staff and truck drivers will be implemented to minimise potential litter problems.

The major litter controls incorporated in the design include:

- Ensuring fully enclosed vehicles only are used;
- Handling of waste to occur within the solid listed waste storage areas and/or bunded loading / unloading areas;
- Perimeter chainwire security fences with regular patrols to remove accumulated litter.

## 6 Environmental Management Plan

### 6.1 OVERVIEW

J.J. Richards has developed an Integrated Management System (IMS) linking Quality, Health & Safety and Environmental Systems within the company. The inextricable links between these issues and the need to establish a base for the consistent application of standards to meet operational and legislative requirements, have made this an important step towards maintaining 'due diligence' throughout the Company's operations.

Under the IMS, the Kennett Court depot will be provided with a Site Based Management Plan for the day-to-day management of their operations - integrating quality, health and safety, risk management, emergency response and environmental management issues into a document which can be practically applied at an operational level, minimising duplication.

Relevant extracts from J.J. Richards' IMS are provided at **Appendix D**.

### 6.2 DESCRIPTION OF ACTIVITIES AND MAIN IMPACTS

The principal activities which will be undertaken on the site include:

- Administration activities (in office);
- Daily depot and overnight parking of heavy vehicles, as required;
- Waste recovery, storage & transfer in the solid listed waste storage areas, Tankers and/or bunded loading / unloading areas.

The potential environmental impacts identified during the development of this management plan for operations are:

- Any contaminated water/spillage from the waste transfer facility entering the stormwater system;
- Dust, odour and litter generation from waste recovery and transfer;
- Noise from onsite truck movements;
- Noise from waste recovery and transfer operations;
- Dust generation from vehicle movements on the site.

### 6.3 DAILY INSPECTIONS AND RECORD KEEPING

The Depot Supervisor (DS) is responsible for undertaking regular monitoring of the environmental performance of the operation. The following aspects (which are cross referenced to relevant elements) are to be checked on a **daily** basis and action taken to rectify any non-compliance.

Element	Description/Performance Criteria	Corrective Action	Inspection Frequency	Responsible Person
All	<b>Public Complaints/</b> No public complaints	Record and respond to immediately	Daily	DS
<b>Washdown Waters</b>	<b>Waste Water Treatment Systems/</b> Check operations i.e. clean any primary screens and pits, grit baskets and collection pits;	Clean screens etc. Remove build up from any primary pits, holding tanks and collection pits.	Daily	DS
<b>Surface Waters</b>	<b>Treatment Train/</b> Check operations of stormwater treatment trains;	Clean grates. Clean out any sediment forebays.	Daily	DS
<b>Fuel, Waste oil and Hazardous Substances</b>	<b>Spills/</b> Check for signs of fuel, waste oil or hazardous substance spills.	Clean up spills. Investigate cause and formulate future procedures	Daily	DS
<b>Air Quality</b>	<b>Unacceptable dust levels /</b> No dust build up on vegetation and surrounding properties <b>Odour/</b> No unacceptable odour	Sweep paved areas  Remove odorous materials Investigate cause and formulate future procedures	Daily	DS
<b>Noise</b>	<b>Operating hours being observed/</b> No excessive noise	Enforce operating hours; Remove noisy equipment from operations or repair.	Daily	DS
<b>Traffic</b>	<b>Speed limits being observed/</b> No excessive dust generated	Counsel/discipline drivers.	Daily	DS
<b>Litter</b>	<b>Litter/</b> Check that there is no litter along fence lines and landscape areas	Clean up untidy areas	Daily	DS

**Table 5.2: Daily Management Procedure – Operation Phase**

Records of daily inspections, environmental incidents and public complaints shall be maintained in accordance with written procedures.

#### 6.4 WASTE MANAGEMENT – WASTE ACCEPTANCE CRITERIA

The facility will accept Listed Waste (solid and liquid) from J.J. Richards' collection activities in the region.

**(a) Policy**

To only accept approved Listed Wastes.

**(b) Performance Criteria and Objectives**

To ensure that operations comply with the requirements of the NT EPA Environment Protection Licence (EPL) and associated environmental legislation.

**(c) Implementation Strategy**

**(i) Design Measures**

- Solid and liquid listed wastes will be subject to the waste transport system as required by the NT EPA.

**(ii) Operational Measures**

- Specific site inductions for all employees and contractors are to be given as per J.J. Richards' IMS;
- Any waste that is spilt during the course of operations is to be cleaned up immediately using spill kits as needed;
- Completion of documentation as required by the waste transport system;
- Waste collected shall be subject to self-checking system as follows:

*Point of Sale*

Before any orders are taken the potential client will be asked a series of questions to ensure that the composition of the waste is consistent with the waste acceptance criteria. If there is any possibility of other forms of contamination a request will be made to undertake an analysis prior to collection.

*Point of Pick Up*

As part of the training program, all drivers are trained to identify any possible anomalies with respect to waste types.

*Point of Delivery*

The driver presents the documentation relevant to the load carried to the Operations Manager, who checks that the load contents and customers serviced are in accordance with the waste acceptance criteria for the facility.

When the Operations Manager is satisfied that the load is acceptable the unloading procedure can be followed.

**(d) Monitoring**

- Daily inspections as described in this plan shall be undertaken by the Depot Supervisor.

(e) **Reporting and Auditing**

- Any public complaint made shall be recorded and actioned as per J.J. Richards' IMS;
- Any environmental incident shall be recorded and actioned as per J.J. Richards' IMS;
- Audits of environmental compliance shall be undertaken as per J.J. Richards' IMS.

(f) **Corrective Action**

In the event of the Operations Manager becoming aware of prohibited waste being present in any waste consignment and that is not in accordance with the site's waste acceptance criteria, he will:

- Cease the receiving of such waste;
- Remove the prohibited waste and store in a proper and efficient manner;
- Notify the person who sent the prohibited waste to the facility of the detection of prohibited waste in the waste received;
- As soon as practicable arrange for a person who can lawfully transport such waste to collect such waste;
- Arrange for the person transporting the prohibited waste to transport such waste to a facility that can lawfully accept such waste;
- Produce the following records:
  - Type of prohibited waste;
  - Quantity of prohibited waste;
  - Date of disposal;
  - Name and address of the person(s) transporting the prohibited waste to the facility;
  - Name and address of the person(s) who generated the prohibited waste (if such person(s) can be reasonably identified).

(g) **Responsible Personnel**

**Inspections:** Depot Supervisor

**Monitoring:** Depot Supervisor

**Reporting:** Area Manager

**Auditing:** Quality Support

## 6.5 STORMWATER RUNOFF

### (a) *Policy*

To minimise the impact on stormwater quality from activities associated with the facility.

### (b) *Performance Criteria and Objectives*

To ensure that operations comply with the requirements of the NT EPA Environment Protection Licence and environmental legislation.

### (c) *Implementation Strategy*

#### (i) **Design Measures**

- Listed waste building is roofed, graded & bunded with no external stormwater ingress;
- Transtank storages are compliant with AS1940, with no direct discharge to stormwater system;
- The loading / unloading area will have a drive over bund;

#### (ii) **Operational Measures**

- Specific site inductions for all employees and contractors are to be given as per J.J. Richards' IMS;
- Operational procedures will be developed in accordance with J.J. Richards' IMS to ensure that no contaminated waters are released to the stormwater system;
- External access ways/truck parking areas to be kept clean;
- Stormwater treatment system to be maintained.

### (d) *Monitoring*

- Daily inspections as described in this Plan shall be undertaken by the Depot Supervisor.

### (e) *Reporting and Auditing*

- Any public complaint made shall be recorded and actioned as per J.J. Richards' IMS;
- Any environmental incident shall be recorded and actioned as per J.J. Richards' IMS;
- Audits of environmental compliance shall be undertaken as per J.J. Richards' IMS.

### (f) *Corrective Action*

- Counsel/discipline employees and contractors responsible for non-compliance with this strategy;
- Accidental spills are to be isolated and cleaned up;

- Any incident is to be recorded and actioned as per J.J. RICHARDS's IMS.

**(g) Responsible Personnel**

**Inspections:** Depot Supervisor

**Monitoring:** Depot Supervisor

**Reporting:** Area Manager

**Auditing:** Quality Support

**6.6 AIR EMISSIONS**

**(a) Policy**

To minimise the impact of air and odour emissions from activities associated with the facility.

**(b) Performance Criteria and Objectives**

To comply with the requirements of the NT EPA Environment Protection Licence and environmental legislation.

Any complaint about air and odour emissions could indicate unacceptable disturbance. When a complaint is received, an investigation will be undertaken and corrective action will be taken, if required.

**(c) Implementation Strategy**

**(i) Design Measures**

- All hardstand trafficked areas graded to the stormwater system;
- The provision of a vapour recovery system for the waste oil storages as required.

**(ii) Operational Measures**

- Site specific inductions for all employees and contractors are to be given as per J.J. Richards' IMS;
- Strict waste acceptance criteria will be employed;
- All unloading and loading to be undertaken in strict accordance with the procedures as outlined in the IMS;
- An assessment of odour is to be made by the driver during each unloading/loading operation;
- The Depot Supervisor is to undertake an odour assessment on a daily basis at the boundaries of the site to ensure no off-site impacts;
- Ensure any spillages are cleaned up immediately.
- Keeping the trucks maintained and clean.



*(d) Monitoring*

- Daily inspections as described in this plan shall be undertaken by the Depot Supervisor.

*(e) Reporting and Auditing*

- Any public complaint made shall be recorded and actioned as per J.J. Richards' IMS;
- Any environmental incident shall be recorded and actioned as per J.J. Richards' IMS;
- Audits of environmental compliance shall be undertaken as per J.J. Richards' IMS.

*(f) Corrective Action*

- Counsel/discipline employees and contractors responsible for non-compliance with this strategy;
- Increase frequency of cleaning storage and transfer areas;
- Investigate the source of odorous waste and, if required, arrange for diversion to an appropriate disposal facility.

*(g) Responsible Personnel*

**Inspections:** Depot Supervisor

**Monitoring:** Depot Supervisor

**Reporting:** Area Manager

**Auditing:** Quality Support

**6.7 NOISE**

*(a) Policy*

To minimise the impact of noise emissions from activities associated with the facility.

*(b) Performance Criteria and Objectives*

To comply with the requirements of the NT EPA Environment Protection Licence and environmental legislation.

Any complaint about noise could indicate unacceptable disturbance. When a complaint is received, an investigation will be undertaken and corrective action will be taken, if required.

*(c) Implementation Strategy*

*(i) Design Measures*

- Adequate buffer distances maintained between potential noise sources and receivers;

- All handling of waste to occur within drum store building, dry store (solid waste) and/or bunded tank farm / loading areas;
- All trucks and equipment fitted with efficient exhaust mufflers.

**(ii) Operational Measures**

- Specific site inductions for all employees and contractors are to be given as per J.J. Richards' IMS;
- Regular maintenance of all vehicles and plant and equipment;
- Where possible the receipt of waste materials will only occur during normal operating hours.

**(d) Monitoring**

- Daily inspections as described in this Plan shall be undertaken by the Depot Supervisor.

**(e) Reporting and Auditing**

- Any public complaint made shall be recorded and actioned as per J.J. Richards' IMS;
- Any environmental incident shall be recorded and actioned as per J.J. Richards' IMS;
- Audits of environmental compliance shall be undertaken as per J.J. Richards' IMS.

**(f) Corrective Action**

- Counsel/discipline employees and contractors responsible for non-compliance with this strategy;
- Repair plant and equipment, including trucks, generating excessive noise;
- Remove/stand down plant and equipment, including trucks, from the site.

**(g) Responsible Personnel**

**Inspections:** Operations Manager

**Monitoring:** Operations Manager

**Reporting:** Area Manager

**Auditing:** Quality Support

## 6.8 TRAFFIC

### (a) *Policy*

To minimise the impact of traffic associated with the facility.

### (b) *Performance Criteria and Objectives*

To comply with appropriate Australian Standards.

### (c) *Implementation Strategy*

#### (i) **Design Measures**

- All trafficked areas are to be concrete / bitumen hardstand;
- Internal driveway access for passenger vehicle is separated, where possible, from heavy vehicle access;
- Adequate line-marking and signage.

#### (ii) **Operational Measures**

- Specific site inductions for all employees and contractors are to be given as per J.J. Richards' IMS;
- Enforce 10 kph speed limit on the site;
- Trafficked areas are to be mechanically swept as need;
- Regular maintenance of all vehicles.

### (d) *Monitoring*

- Daily inspections as described in this plan shall be undertaken by the Depot Supervisor.

### (e) *Reporting and Auditing*

- Any public complaint made shall be recorded and actioned as per J.J. Richards' IMS;
- Any environmental incident shall be recorded and actioned as per J.J. Richards' IMS;
- Audits of environmental compliance shall be undertaken as per J.J. Richards' IMS.

### (f) *Corrective Action*

- Counsel/discipline employees and contractors responsible for non-compliance with this strategy;
- Increase frequency of mechanical sweeping of trafficked areas;

### (g) *Responsible Personnel*

**Inspections:** Depot Supervisor

**Monitoring:** Depot Supervisor

**Reporting:** Area Manager

**Auditing:** Quality Support

## 6.9 SITE SECURITY

### (a) *Policy*

To operate the facility and associated works in a manner so as to prevent unauthorised receipt and removal of waste.

### (b) *Performance Criteria and Objectives*

Only waste as described in the waste acceptance criteria in the EPL to be accepted during the nominated opening hours.

### (c) *Implementation Strategy*

#### (i) **Design Measures**

- Site fully fenced with lockable gates.

#### (ii) **Operational Measures**

- Specific site inductions for all employees and contractors are to be given as per J.J. Richards' IMS;
- Site gates to be kept locked outside of nominated opening hours;
- No public access to be permitted to the facility.

### (d) *Monitoring*

- Daily inspections as described in this plan shall be undertaken by the Depot Supervisor.

### (e) *Reporting and Auditing*

- Any public complaint made shall be recorded and actioned as per J.J. Richards' IMS;
- Any environmental incident shall be recorded and actioned as per J.J. Richards' IMS;
- Audits of environmental compliance shall be undertaken as per J.J. Richards' IMS.

### (f) *Corrective Action*

- Counsel/discipline employees and contractors responsible for non-compliance with this strategy;

### (g) *Responsible Personnel*

**Inspections:** Depot Supervisor

**Monitoring:** Depot Supervisor

**Reporting:** Area Manager

**Auditing:** Quality Support