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10-0066

Preliminary Environmental Assessment

For

No Fuss Liquid Waste Pty Ltd

January 2010
Revision 0

Project No: 3439.001



Preliminary Environmental Assessment – No Fuss Liquid Waste Pty Ltd

1. EXECUTIVE SUMMARY

1.1 General

No Fuss Liquid Waste Pty Ltd is a family owned and operated company that currently operates a liquid waste removal service trading as No Fuss Liquid Waste Pumpouts at a facility in Emu Plains.

To fulfil a demand for the collection and treatment of non-hazardous liquid waste products including septic, sullage, groundwater, rain water, oily waters, grease traps, cooking oil, mud water and other organic liquid wastes, No Fuss has lodged a Development Application with Penrith City Council to operate a J120 Plant for the separation and treatment of oily water. The DA relates to the use of Unit No. 2, which is in the same complex, but will be operated as a separate entity, to the current operations at 10-12 Smith Street, Emu Plains.

2. PROJECT OBJECTIVES

2.1 General

The proponents of the proposal, No Fuss Liquid Waste Pumpouts, have been actively involved in the liquid waste management industry for a number of years.

To this end, there are 4 main objectives of the project:

- To fulfil a demand for the collection and treatment of non-hazardous liquid waste products;
- to provide a service to the community (residential and commercial), through the collection and treatment of liquid waste products;
- to ensure liquid wastes are disposed of in an environmentally responsible manner; and
- to operate as a business providing revenue in the Penrith region.

3. SITE AND SURROUNDS

3.1 Subject site

The subject site is identified as Lot 330 DP 575290, 10-12 Smith Street, Emu Plains and is zoned 4(a) General Industrial under Penrith LEP 1996 (Industrial Land).

3.2 Site access

The site is accessible by a wide, sealed road with provision for street parking. Smith Street runs off of Old Bathurst Road and is located within an industrial area of Emu Plains.

3.3 Surrounding lands

The land surrounding the site is generally industrial in nature, with several automotive businesses in the vicinity of the site. There is a dwelling at the end of Smith Street, however, this is used for storage purposes and is not used as a residential dwelling. The Emu Plains Correctional Centre is located on land outside of the block and to the north-west of the site, while land to the north-east appears to be used for quarrying.

4. PROJECT DESCRIPTION

4.1 Development layout

The subject development involves the construction of a water treatment plant which will incorporate the following:



- The use of an existing L-shaped industrial unit measuring approximately 234.6 sq metres;
- The use of an existing office which is internal to the unit located on a mezzanine level;
- Installation of a wastewater holding pit, oily water separator, water storage tank, DAF plant, sludge tank and centrifuge. These items will be laid out against the eastern wall of the unit in sequence.
- External areas sealed by concrete;
- One driveway providing access to the site from Smith Street. Hardstand areas in the location of the site entry point and within the vehicle manoeuvring areas;
- Car parking spaces for visitor and employee parking in an area adjacent to the entrance of the site;
- Bunding within the extent of the treatment processes in the unit;
- Outsides and surrounds which are concreted and will be kept clean so roof and stormwater can be directed to the drain;
- Storage and use of chemicals- caustic, acid and polymer (no more than 250L of each on-site).

4.2 Site operations

The proposed development includes the operation of an oily liquid waste treatment facility which will, in the future, have the capacity to treat 100,000 litres of liquid waste per day. Initially, however, it is estimated that only around 10,000 litres per day will be treated.

The facility will only be available for the use of registered waste transporters and not be available to the general public.

All liquid waste, once treated, will be removed from the site either to the sewer through a Trade Waste Licence or to an oily waste recycling contractor. A DECCW Licence will be required for the operations.

The proposed process is outlined in Section 4.3 (Below).

4.3 The site process

No Fuss Liquid Waste Pty Ltd proposes the following process for the treatment of waste water at the site:

1. Prior to oily waste being accepted at the site, samples are tested (before delivery) to ensure the material is acceptable for treatment;
2. Vacuum tankers from various locations will arrive at the site and discharge into a holding tank;
3. From the holding tank the waste water will be passed through an oily water separator;
4. Any sludge left in the holding tank will be passed through a centrifuge where it will be spun until dried and then disposed of at an approved EPA site;
5. From the oily water separator all water will be sent to a storage tank and all oil sent to an oil collection system;
6. Once full, the oil drum will be disposed of at a designated oil disposal site;
7. The water in the storage tank will be sent through the Dissolved Air Flotation (DAF) plant;
8. The water will be treated by chemicals- the chemicals used will be dependent on what is in the water and the quantity within the water;
9. The water will be pH tested and sent to the Sydney Water Sewer according to the Trade Waste Licence;
10. Any sludge left over from the storage tank treatment will be sent to the sludge tank;
11. All sludge from the tank will be sent through the centrifuge where it will be spun until dried and then sent to an approved EPA site.

Figure 1 details the process

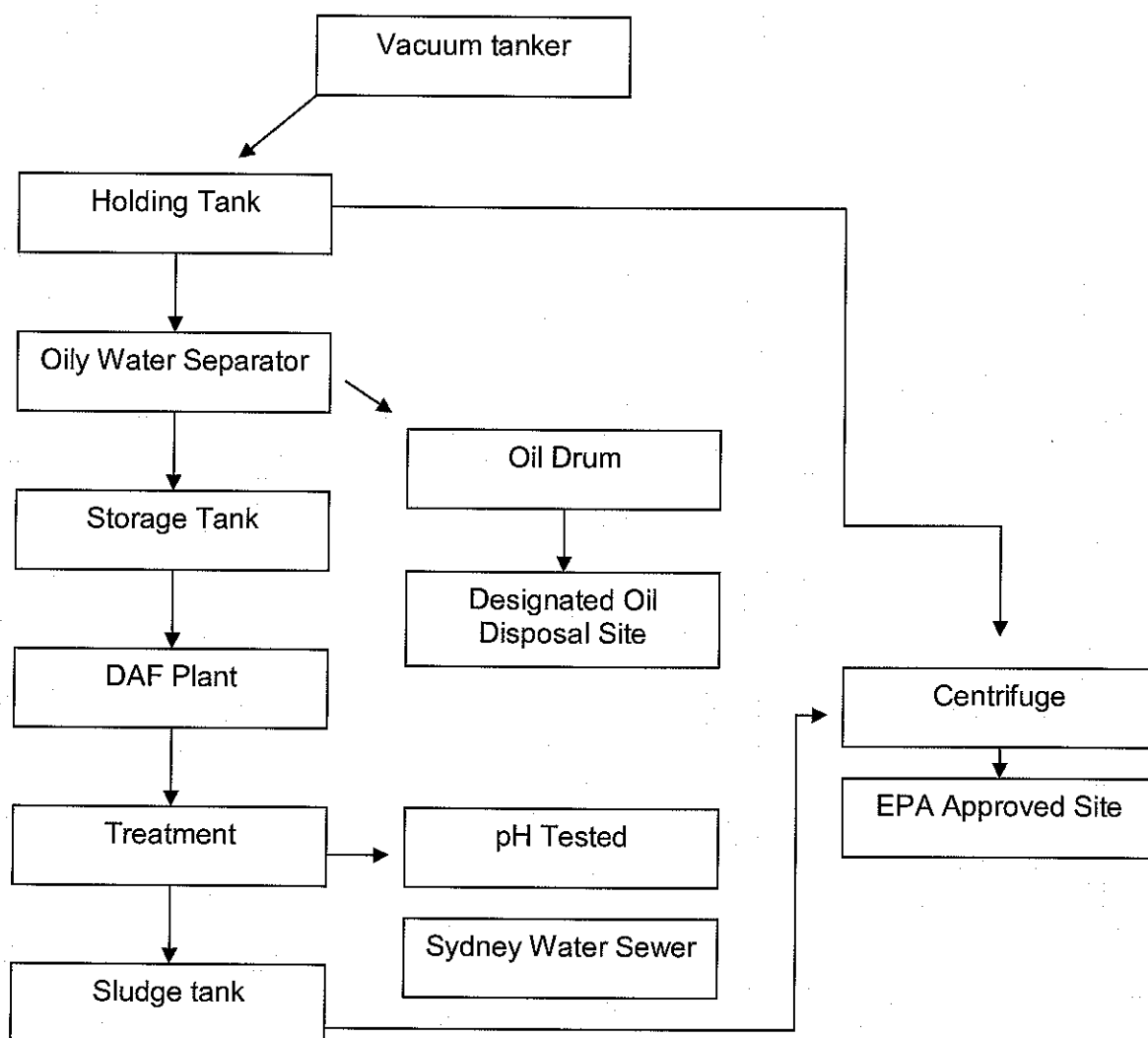


Figure 1: Proposed Pre-Treatment for Oily Waste Water and DAF Plant at No Fuss Liquid Waste

4.4 Facility Layout

The oily water waste treatment facility will be installed along the full length of the eastern wall of unit 2, as per the treatment process, i.e. stage 1 of the process- the holding tank and receipt of oily water will occur at the southern end of the unit. From here, water will be processed in a northerly direction through the treatment process.

4.5 Hours of operation

The hours of operation for the business will be 6.00 am to 6.00 pm, 7 days per week; however, it is expected that the site will operate during the five day business week. Delivery to the site will be between the hours of 8.00 am to 2.00 pm to allow the treatment process to be completed within the day (i.e. by 6.00 pm). In the case of an emergency call out after hours, the trucks will collect the liquid waste and park at the facility overnight with the liquid being removed and processed the following day.

4.6 Employees

There will be a total of three (3) employees working at the site at any one time- a discharge officer, a sales manager and a director. The director's job will be to ensure that the process is running smoothly.



4.7 Facilities

A 234.6 sq metre L-shaped industrial unit is already available onsite. There are no accessible toilet facilities located within the unit; however, as No Fuss rents the property next door (Unit 1) the toilet in this unit will be made accessible. Office space will also be shared with Unit 1. The office is located on the mezzanine floor level within unit 1.

4.8 Servicing

The site is serviced with power, telephone, sewerage and water. No new amenities or facilities will be required.

5. STATE AND REGIONAL PLANNING FRAMEWORK

A range of state, regional and local planning frameworks have been considered in relation to No Fuss Liquid Waste Pty Ltd's proposed development. Relevant policies and legislation are listed below.

5.1 State Environmental Planning Policy (Major Development) 2005

The proposed development is expected to have the capacity to treat 10,000 L per day (approximately 10 tonnes) over 5 days in a 52 week year. This equates to approximately 2600 tonnes of oily waste water handled and treated by No Fuss in a year. This Triggers that consideration of this project requires Part 3A approval under Schedule 1- Project Classes of Development- Group 9 Resource and Waste Related Industries.

5.2 State Environmental Planning Policy No. 33- Hazardous and Offensive Development

The proposed development has the potential to be defined as an *Offensive Industry* under this Plan. Providing the outlined mitigation strategies and management plan are implemented, the operation of the plant is not expected to pose a significant risk to human health or the environment or produce offensive discharges.

5.3 Sydney Regional Environmental Plans

The Sydney Regional Environmental Plans were reviewed but found not to be applicable to the proposed development.

6. LOCAL PLANNING FRAMEWORK

Penrith City Council has a range of plans that are required to be assessed for any proposed development. The following have been reviewed for their applicability.

6.1 Penrith Local Environment Plan 1996 (Industrial Land)

The subject site is zoned 4(a) General Industry Zone pursuant to Penrith Local Environment Plan Industrial Land and the development is permissible with consent.

The development is integrated due to the involvement of other authorities such as DECCW and Sydney Water.

6.2 Draft Environmental Planning Instruments

There are two (2) known draft Environmental Planning Instruments:

- Draft Penrith LEP 2008
- Draft Penrith DCP 2008

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Both are still in draft form and yet to be Gazetted. There are no changes or restrictions to the proposed wastewater plan within these drafts.

6.3 Development Control Plans

6.3.1 Penrith DCP 2006 – Section 2.1 Contaminated Land

In regards to the proposed development there was no recognition that a contaminated site assessment was required. The industrial unit to house the water treatment facility is already in place with concrete floors. Any contamination from previous operations would be restricted to the concrete floors and would pose little issue to the environment.

6.3.2 Penrith DCP 2006 – Section 2.6 Landscape

The proposed development is subject to the provisions identified in section 2.6 of the Penrith DCP- Landscaping. The industrial units housing the proposed development are already in place; therefore, additional landscaping is not required.

6.3.3 Penrith DCP 2006 – Section 2.8 Register of Significant Trees and Gardens

This part of the Plan assists with the conservation of Penrith's significant trees and gardens by complementing the Tree Preservation Order and the Heritage Local Environmental Plan. There are no significant trees or gardens located near the proposed development.

6.3.4 Penrith DCP 2006 – Section 2.9 Waste Planning

The proposed development is subject to the provisions identified in Section 2.9 of the Penrith DCP- waste Planning.

The nature of the facility and its operations is for the proactive management of liquid wastes through their treatment and disposal. Waste management systems have been established prior to operations:

- Water to sewer
- Oil
- Sludge

All works will be internal to the industrial unit.

6.3.5 Penrith DCP 2006 Section – 4.1 Industrial Land

The proposed development is deemed to be subject to the provisions identified in Section 4.1 of the Penrith DCP- Industrial Land.

6.3.6 Penrith DCP 2006 – Section 6.9 Emu Plains Commercial Area

Part 6 of the Penrith DCP 2006 includes a range of specific development controls that apply to particular sites and areas within the City of Penrith, and includes Council's Urban Release Areas.

Development in the Emu Plains Commercial Area is covered in Section 6.9; however, this section applies to land at Emu Plains, bounded by Old Bathurst Road, the Great Western Highway, Lamrock Street and Western Railway. This is therefore outside of the area of the proposed development at Smith Street.

7. ENVIRONMENTAL IMPACTS

7.1 Environmental risks and hazards

An environmental risk assessment was undertaken for the proposed operations.



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The assessment was conducted by reviewing the nature of the process and identifying the potential for any environmental impact regardless of the possible frequency of the event. In this way, mitigation strategies to reduce any possible impact can be implemented. The mitigation strategies can be found in section 9.

A review of other similar operations, environmental licences and operations has also been undertaken.

The main items addressed within the risk assessment are included in table 1 of potential environmental impacts and related operations.

Table 1: Potential environmental risks of the proposed development

Nature of risk	Operation	Nature of possible impact
During operation – air	Transportation of waste materials to site	Generation of emissions & odours from vehicles
	Treatment process	Generation of odours from waste water and treatment chemicals
	Transportation of waste materials from site	Generation of emissions & odours from vehicles
During operation – water	Transportation of waste materials to site	Spills of oil or fuel resulting in contaminated stormwater
	Transportation of waste materials to site	Spills/ leaks of waste from tanker resulting in contaminated stormwater
	Storage- Holding Tank	Spills or leaks of waste from holding tank resulting in contaminated stormwater or groundwater
	Treatment process	Spills or leaks of waste resulting in contaminated stormwater
	Treatment process	Discharge/ disposal of untreated or incorrectly treated water into sewage system
	Treatment process	Chemical spills resulting in contaminated stormwater
	Transportation of waste materials from site	Spills of oil or fuel resulting in contaminated stormwater
	Transportation of waste materials from site	Spills of waste from tanker resulting in contaminated stormwater
	Transportation of waste materials from site	Incorrect disposal resulting in water pollution
	Offices	Amenity discharge
During operation – noise	Transportation of waste materials to site	Noise impact on neighbours due to reversing beepers, engine noise
	Treatment process	Noise generated from treatment process, machinery etc.
	Transportation of waste from site	Noise impact on neighbours due to reversing beepers, engine noise
During operation – waste	Storage/ holding tanks	Generation of waste product, potential contaminated material (sludges/ oil/ water)
	Treatment process	Generation of waste product, potential contaminated material (sludges/ oil/ water)
	Treatment process	Generation of waste from chemical containers
	Offices	Generation of putrescible waste
During operation – land	Transportation of waste materials to site	Spills of waste from tanker resulting in contaminated land
	Transportation of waste materials to site	Spills of oil or fuel resulting in contaminated land
	Storage- Holding Tank	Spills or leaks of waste from holding tank resulting in contaminated land
	Treatment Process	Generation of waste product, potential contaminated material
	Transportation of waste materials from site	Spills of oil or fuel resulting in contaminated land
	Transportation of waste materials from site	Spills of waste from tanker resulting in contaminated land
	Transportation of waste materials from site	Incorrect disposal resulting in contamination



7.2 Waste Management

The proposed development will handle approximately 2600 tonnes of oily, aqueous waste per annum consisting of septic, sullage, groundwater, rain water, oily waters, grease traps, cooking oil, mud water and other organic liquid wastes.

It will generate an oily waste sludge + liquid and "clean" water. The oily liquid will be recycled through a licenced contractor with the sludge being disposed at an EPA approved landfill. The clean water will be discharged to "sewer" under a Trade waste Licence.

Under the Waste Avoidance and Resource Recovery Act 2001 all waste materials must be classified to enable certain standards of operations to be met in their handling, to ensure both safe and environmental and occupational health practices.

Waste liquids will be tested prior to acceptance at the facility to ensure their treatability.

7.3 Traffic and transport

A formal Traffic Impact Assessment has not been undertaken for the proposed operation; however, no extra traffic is predicted to be generated from the operations. The trucks that will be used are those already in use on the adjoining premises. No Fuss currently has four (4) trucks that are used for various pump outs. They range in capacity from 6,000 L to 24,000 L, with each truck designated to a particular waste. At the commencement of operations No Fuss estimate that 1-2 trucks will access the property three times per day to unload. It takes approximately 15-20 minutes to empty a load.

The trucks will enter the site from Smith Street after entering it via either a left or right hand turn from Old Bathurst Road.

Trucks will enter and exit the property in a forward facing direction. Trucks enter the driveway, turning sharply to the left where there is a slight grassed area. From there the trucks reverse up to the roller door of unit 2 and proceed inside. Once the truck has finished unloading it will drive forward and exit the property onto Smith Street.

7.4 Odours

The proposed operations have the potential to create odours, in particular, odours would likely manifest from the holding tank. This is the area into which the liquid waste is pumped and held before treatment. Given that the whole operations are completed in a fully enclosed building it is not expected that odours would cause any negative impact on the surrounding environment.

7.5 Noise and vibration

The NSW Industrial Noise policy came into being in 2000 with the overall aim to balance the needs of industrial activity with the desire for quiet in the community through the prevention and minimisation of noise. The policy's focus is on the noise emitted from industrial sites and how this may affect the amenity of nearby receivers.

The proposed development is located within a designated industrial area, with no nearby residences (with the possible exception of the house at No. 2 Smith Street).

A formal noise Impact assessment was undertaken by Penrith City Council for the operations undertaken by No Fuss within Unit 1, 10-12 Smith Street. The noise impact assessment concluded that minimal impacts result from the operations. As the operations of the proposed development with Unit 2 are expected to be similar to those in Unit 1, it could be expected that there would be minimal impacts on noise.



Operational Noise

The loudest noise that would be generated from the unit would be from an air compressor which turns on and off randomly as the waste progresses through different sections of the processing unit. The air compressor is located within a small room near the toilet block. The door to the room is kept shut at all times. Additionally, the room will be kept shut which will buffer any noise generated. The air compressor is unable to be heard from the outside of the building.

Traffic Noise

There is no noticeable noise expected from the traffic movements associated with the proposed development. Trucks that enter and exit the premises are the same trucks that enter and exit the adjoining unit, thus no additional noise associated with truck movement is expected.

7.6 Visual impacts

The proposed development will be located within the confines of Unit 2, therefore is not expected to result in any negative visual impact to the area.

7.7 Air quality impacts

Due to the nature of the proposed development and the fact that all handling of materials is within a building no formal air quality monitoring was undertaken.

Air pollutants are limited to those associated with combustion engines and will be released in limited concentrations during the operation of vehicles and mobile equipment. Due to the small amount that will be emitted, these air emissions are not seen as a problem.

Exhausts from pumps will also contribute similar emissions, however, these will be minimal and contained within the facility. No emissions will be vented to the atmosphere.

7.8 Water quality/ stormwater

It is proposed that the site be divided into two water management areas, for the treatment of waters on the site. These areas are....

1. roof and forecourt water
2. "dirty" process water.

1. Storm water will be diverted from the roof and the paved forecourt area to the existing stormwater system approved for the development of the units.

2. There is the potential for water to be applied as required to hose down the facility/ washing equipment and floors. The potential for spills is also high. To contain this water the entrance to the building will be provided with a speed hump to act as a bund. The walls will also be sealed to contain any water. Water will be directed to the holding tank for treatment through the facility.

8. MITIGATION MEASURES

8.1 Measures to be implemented

A range of strategies are to be implemented to manage the potential environmental impacts that could result from the operation. These strategies make up the environmental management plan for the site and include practical pollution control measures as well as quality systems and accompanying procedures and check lists. The following table (Table 2) lists the mitigation strategies proposed.

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Table 2: Mitigation strategies for proposed development

Nature of risk	Operation	Nature of possible impact	Mitigation Strategy
During operation - Air	Transportation of materials to site	Generation of emissions & odours from vehicles	Contractors to be advised to service and maintain vehicles
	Treatment process	Generation of odours from waste water and treatment chemicals	Operations undertaken inside fully enclosed building, suitable ventilation. Tanks to be emptied of sludges at designated depth
	Transportation of materials from site	Generation of emissions & odours from vehicles	Contractors to be advised to service and maintain vehicles
During operation water	Transportation of materials to site	Spills of oil or fuel resulting in contaminated stormwater	Chemical spill kit, licenced vehicle operators, serviced and maintained vehicles
	Transportation of materials to site	Spills of waste from tanker resulting in contaminated stormwater	Licenced and experience truck operators, spill kit
	Storage- Holding Tank	Spills or leaks of waste from holding tank resulting in contaminated stormwater or groundwater	Bunding and spill kits in place. Regular inspection of integrity of tank to ensure no leaks
	Treatment process	Spills or leaks of waste resulting in contaminated stormwater	Bunding and spill kits in place
	Treatment process	Discharge/ disposal of untreated or incorrectly treated water into sewage system	QA/QC procedures in place, experienced employees- regular refresher training.
	Treatment process	Chemical spills resulting in contaminated stormwater	Bunding, spill kits in place
	Transportation of materials from site	Spills of oil or fuel resulting in contaminated stormwater	Chemical spill kits, licenced vehicle operators, serviced and maintained vehicles
	Transportation of materials from site	Spills of waste from tanker resulting in contaminated stormwater	Licenced and experience truck operators, spill kit
	Transportation of materials from site	Incorrect disposal resulting in pollution of waters	Waste oils/ sludges classified as per guidelines, docket system in place to ensure disposal to site, QA/QC procedures in place
	Offices	Amenity discharge	Toilets, wash facilities will be connected to sewer.



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Table 2 (continued)

Nature of risk	Operation	Nature of possible impact	Mitigation Strategy
During operation - noise	Transportation of waste materials to site	Noise impact on neighbours due to reversing beepers, engine noise	Most deliveries between 8.00 am- 2.00 pm
	Treatment process	Noise generated from pre-treatment process, machinery etc.	Operations inside fully enclosed building. Equipment to be maintained in good working order
	Transportation of waste materials from site	Noise impact on neighbours due to reversing beepers, engine noise	Removal of oils and waste during daylight business hours.
During operation - waste	Treatment process	Generation of waste product, potential contaminated material (Sludge/oil/water)	All waste materials accepted for treatment pre-tested to ensure non-hazardous, rejection of materials not fitting acceptable description, waste disposal to appropriate facilities, waste classification as required
	Treatment process	Generation of waste from chemical containers	waste disposal to appropriate facilities
	Storage-Holding tank	Generation of waste product	All waste materials accepted, waste classification as required
	Transportation of waste materials from site	Incorrect disposal resulting in contamination	waste classification undertaken as required
	Offices	Generation of putrescible waste	Waste disposal to appropriate facilities- currently JJ Richards & sons Pty Ltd
During operation - land	Transportation of waste materials to site	Spills of oil or fuel resulting in contaminated land	Chemical spill kit, licenced vehicle operators, serviced and maintained vehicles
	Transportation of waste materials to site	Spills of waste from tanker resulting in contaminated land	Chemical spill kit, licenced vehicle operators
	Storage- Holding Tank	Spills or leaks of waste from holding tank resulting in contaminated land	Bunding in place and inspected regularly for integrity. Facility floor sealed
	Treatment process	Generation of waste product, potential contaminated material	All waste materials accepted for treatment pre-tested to ensure non-hazardous, rejection of materials not fitting acceptable description, waste disposal to appropriate facilities. Bunding in place, facility floor sealed.
	Transportation of waste materials from site	Spills of oil or fuel resulting in contaminated land	Chemical spill kit, licenced vehicle operators, serviced and maintained vehicles
	Transportation of waste materials from site	Spills of waste from tanker resulting in contaminated land	Chemical spill kit, licenced vehicle operators



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(2) *This clause does not apply to:*

(a) *development comprising or involving any use of sludge or effluent if:*

- (i) the dominant purpose is not waste disposal, and*
- (ii) the development is carried out in a location other than one listed in subclause (1)*
- (d), above, or*

(b) *development comprising or involving waste management facilities or works specifically referred to elsewhere in this Schedule, or*

(c) *development for which State Environmental Planning Policy No 52—Farm Dams and Other Works in Land and Water Management Plan Areas requires consent.*

9.2 Licensing Requirements

9.2.1 The Protection of the Environment Operations Act 1997 (POEO Act)

The Protection of the Environment Operations Act 1997 sets out requirements for the licensing of activities by the Environment Protection Authority (EPA). Licences are imposed on operations to ensure that environmental impacts are kept to a minimum and agreed conditions adhered to. Not all operations however, are licensed by the EPA. Local Councils may have this jurisdiction instead. The overseeing body is defined through Schedule 1 of the Act setting out the criteria for operations requiring an EPA licence.

In regards to waste management facilities, the need for an EPA licence is determined by the nature of the waste received, the annual quantity of waste to be handled and the location of the facility in regards to environmentally sensitive areas.

Schedule 1 of the POEO Act outlines the operations that need to be licensed. As this proposed facility intends to handle liquid wastes it requires a license.

The DECCW have been approached and are aware of the proposal.

10. DEVELOPMENT JUSTIFICATION

Environmentally, the risks of the operation have been reviewed and mitigation strategies planned to enable the proactive management of the known impacts. It is therefore justifiable that this development will add value to the Penrith community, as well as assisting in improving the broader environment.