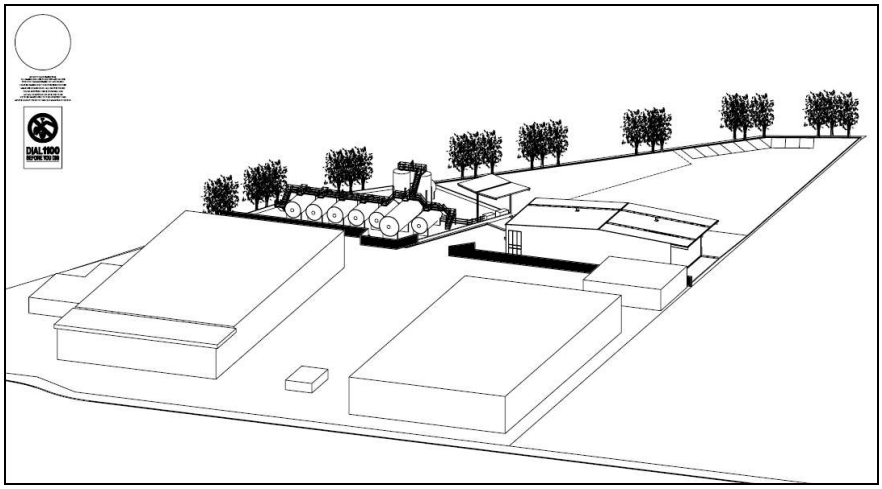
Department of Planning

MAJOR PROJECT ASSESSMENT: Used Oil Transfer Station, St Marys



Director-General's
Environmental Assessment Report
Section 75I of the
Environmental Planning and Assessment Act 1979

February 2007

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EXECUTIVE SUMMARY

Klekies Pty Ltd (Klekies) currently operates a used oil transfer station in West Gosford. However, to improve operation efficiencies and increase storage capacity, it proposes to relocate this facility to the St Marys industrial area in the Penrith local government area.

The proposal involves:

- installing a tank farm with 9 tanks and a total storage capacity of 540,000 litres; and
- constructing a warehouse/office building (512.5m^2) and a range of associated infrastructure, including a dewatering plant, stormwater management system, and car park.

Oil would be received at the facility from various locations in the Sydney metropolitan region. It would then be pre-treated (heating only) on-site before being transported by bulk tanker to the Southern Oil Refineries used oil refinery facility in Wagga Wagga.

The new facility would be capable of handling up to 5.5 million litres of used oil a year. It has a capital investment value of $500,000, and would employ 6 people.

The Department received four submissions, three from public authorities (the Department of Environment and Conservation, NSW Fire Brigade and Sydney Water) and one from the adjoining Dunheved Golf Club. The public authorities did not object to the proposal, however, the golf club objected to the proposal, principally raising concerns about the potential traffic and flooding impacts of the proposal.

The Department has assessed the proposal, and is satisfied that the proposal is unlikely to cause any significant environmental impacts, and would provide a range of environmental and economic benefits for the region, in terms of the safe collection, management, reuse and treatment of used oils from a range of industries.

Consequently, it considers the proposal to be in the public interest, and recommends approval subject to conditions.

1. BACKGROUND

Klekies (a subsidiary of Southern Oil Refineries Pty Ltd) has operated a used oil transfer station at West Gosford since 1985. This facility collects used oil, oil filters and oily water from a range of industries in the region, such as motor workshops and car dealerships. These waste products are then stored and pre-treated (heated) on-site before being transported by bulk tanker to the Southern Oil Refineries oil refinery in Wagga Wagga for further treatment.

To improve the efficiency of the operation, and in particular reduce the distance travelled by collection vehicles, Klekies proposes to relocate this facility to the St Marys industrial area in the Penrith LGA (see Figure 1).

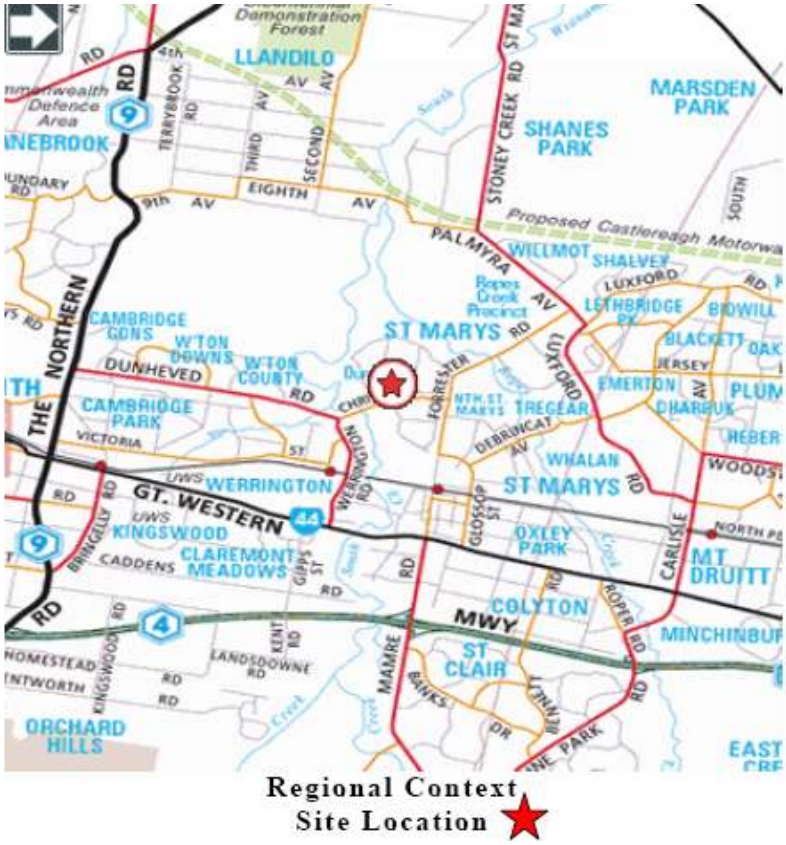

Figure 1: Regional Context

The proposed facility would be located to the north of two existing factory/industrial warehouse buildings on the site, and would be close to a range of other industrial development - such as the Simsmetal car crushing plant; a rubber gasket manufacturing operation and a urethane insulation manufacturing operation - a disused railway line and rail spur; and the Dunheved Golf Course (refer Figure 2).

The closest residential property would be located approximately 800 to the west of the new facility on Reid Street, Werrington.

Figure 2: Surrounding land uses

2. PROPOSED DEVELOPMENT

The main components of the proposal are described in Table 1 and illustrated in Figure 3.

Table 1: Major Components of the Project

Component	Description
Project Summary	**Used oil transfer station with a throughput of 5,500,000 litres or 5,000 tonnes annually. Six 8-10 tonne trucks would operate from the site collecting used oil from various locations and businesses in the Sydney Metropolitan area, such as car dealerships and motor repair facilities.** **On site, the used oil would be pumped from the trucks to the tanks and the oil would be filtered prior to storage. Stored used oil would be transferred 3 – 4 times per week to the refinery facility in Wagga Wagga in B Double bulk tankers.**
Site Preparation Works	Installation of the stormwater management system, installation of utilities and services to the warehouse/office and tank farm, and fill and level ground to required height.
Tank Farm and Bunding	Installation of 9 tanks consisting of 6 x 55,000L tanks, 2 x 45,000L tanks and 1 x 120,000L tank. The tanks would have a total storage capacity of 540,000 litres, allowing the storage of different grades of oils, and a maximum height of 8m to the top of the platform. Bunding would be installed around the tank farm and the unloading/loading facility, with a capacity of 560,000L and 10,000L respectively.

Warehouse/Office Building	Construction of a warehouse/office with a total floor area of 512.5m^2, in the north east corner of the site. The warehouse/office would be 7m high and would be constructed of precast concrete panels and a metal deck roof. The building would also include a laboratory for the preliminary testing of used oil to ensure it is suitable for treatment at the Wagga Wagga facility.
Dewatering Plant	Construction of a dewatering plant for the heating (80-90°C) of used oil to separate water from the used oil. No other processing would occur on site. Water extracted would be stored in Tank 1A or 1B, prior to being transported to a licensed water treatment plant. It is noted that Klekies proposed to use fuel oil (i.e. refined used oil from the Wagga Wagga facility) as the fuel source during the heating process. DEC do not consider that fuel oil is a standard fuel source and therefore require an assessment to be undretaken in accordance with DEC's *Guidance Note - Assessment of Non-Standard Fuels.* Limited information has been provided on the fuel oil and as such the Department's recommended conditions of approval require the use of standard fuels only (e.g., electricity, natural gas and LPG) and does not allow the use of fuel oil. The Proponent has agreed to use a standard fuel source for the heating process.
Stormwater	Installation of a stormwater drainage system with collected stormwater to be drained to the existing stormwater system for Christie Street.
Parking and Site Access	Existing access is provided to the site from Christie Street. 9 parking spaces would be provided for trucks and cars. A truck turning area would be provided.
Employment	Approximately six full time positions would be transferred from the Proponent's Gosford facility, and no new operational positions would be generated.
Hours of Construction and Operation	Construction hours would be 7am to 5pm Monday to Friday and 8am to 12pm Saturday. Hours of operation would be 6am to 6pm Monday to Friday and 6am to 12pm Saturday.

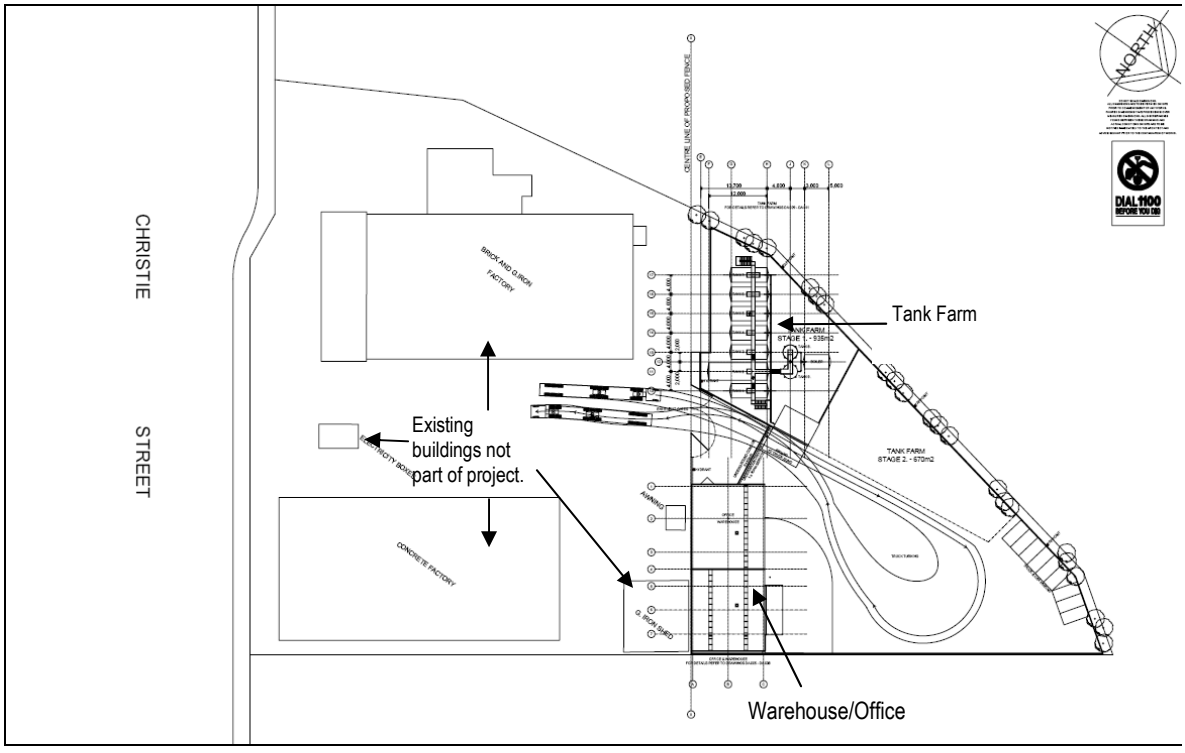

Figure 3: Site layout

3. STATUTORY CONTEXT

3.1 Major Project

The proposal is classified as a major project under Part 3A of the *Environmental Planning and Assessment Act 1979* (the Act) because it meets the criteria of Clause 27 of Schedule 1 of the *State Environmental Planning Policy (Major Projects) 2005* namely: it is development for the purpose of a liquid waste depot that treats, stores or disposes of industrial liquid waste and handles more than 1,000 tonnes per year of other aqueous or non-aqueous liquid industrial waste. Consequently, the Minister is the approval authority for the project.

3.2 Permissibility

Under Section 75J of the EP&A Act, the Minister cannot approve the carrying out of a project that would be wholly prohibited under an environmental planning instrument. The site is zoned 4(a) General Industrial pursuant to *Penrith Local Environmental Plan (Industrial Lands) 1996*. Development for the purposes of light industry is permissible with consent.

3.3 Exhibition

Under Section 75(3) of the EP&A Act, the Director-General is required to make the environmental assessment of a project publicly available for at least 30 days.

After accepting the environmental assessment for the project, the Department:

- made it publicly available from 18 October 2006 until 16 November 2006:
  - on the Department's website, and
  - at the Department's Information Centre and Penrith City Council; notified landowners in the vicinity of the site about the exhibition period by letter;
- notified relevant State government authorities and Penrith City Council by letter; and
- advertised the exhibition in the St Marys Star.

This satisfies the requirements in Section 75H(3) of the EP&A Act.

3.4 Environmental Planning Instruments (EPIs)

Under Section 75I of the EP&A Act, the Director-General's report is required to include a copy of or reference to the provisions of any *State Environmental Planning Policy* (SEPP) that substantially governs the carrying out of the project.

The Department has considered the project against the relevant provisions of several SEPPs (including SEPPs 33 and 55), and is satisfied that none of these SEPPs substantially govern the carrying out of this project. Nevertheless, it has considered the relevant provisions of these SEPPs in Appendix E.

3.5 Statement of Compliance

Under Section 75I of the EP&A Act, the Director-General's report is required to include a statement relating to compliance with the environmental assessment requirements with respect to the project.

The Department is satisfied that, subject to the additional information provided in Klekies' response to submissions, the environmental assessment requirements have been complied with.

4. ISSUES RAISED DURING CONSULTATION

During the exhibition period, the Department received 4 submissions on the proposal, including 3 from public authorities (the Department of Environment and Conservation, NSW Fire Brigade and Sydney Water) and 1 from the adjoining Dunheved Golf Club (see Appendix D).

The DEC and Sydney Water raised no objections to the proposal, and provided their recommended conditions of approval.

Initially, the NSW Fire Brigade requested further details relating to the fire hydrant system, the hazard analysis and the fire safety study. However, after receiving additional information on these matters from Kelkies, it advised that it had no objection to the proposal.

The golf club objected to the proposal, raising concerns about the lack of detail in the environmental assessment, and particularly the potential traffic and flooding impacts of the proposal.

Klekies has prepared a response to issues raised in these submissions (see Appendix B).

5. ASSESSMENT OF ENVIRONMENTAL IMPACTS

5.1 Safety and Hazards

The proposal involves the temporary storage and transport of used oil, including recycled engine oils and waste transformer oils. These used oils are classified as Class 9 products under the Australian Dangerous Goods Code. This is because, although they are non-hazardous to human health, they are an 'environmentally hazardous substance/liquid' and thus pose a level of risk to environmental health.

Klekies has conducted a Preliminary Hazard Analysis (PHA) and a Fire Safety Study (FSS) to assess the potential risks associated with the proposal.

The PHA identified potentially hazardous activities associated with the proposal, including the transport of used oil, loading and unloading operations and the storage of used oil; quantitatively assessed the risks associated with these activities; and outlined the design and control measures that would be implemented to control these potential risks.

The FSS identified potential fire hazards, which included the potential for a fire to start on adjacent lands and travel to the site, as well as on site ignition due to electrical wiring and handling equipment or arson. However, the used oils to be stored on site are not considered to be an ignition source, as they would require a fire of 100 degrees or more for ignition to occur.

The NSW Fire Brigade requested additional information on the fire hydrant system, the location of manual loading/unloading points throughout the site, the containment of fire fighting water, and the equipment and fuel sources to be used in the oil heating process. It also noted that the PHA and FSS did not fully address the requirements of relevant guidelines, and in particular the Department's *Hazardous Industry Planning and Advisory Paper No. 2 Fire Safety Study Guidelines* and *Hazardous Industry Planning Advisory Paper: No. 6 Guidelines for Hazard Analysis*.

Klekies subsequently revised the PHA and FSS, and the NSW Fire Brigade has subsequently advised the Department that it is satisfied with that the information in the revised documents is now adequate for decision-making purposes.
Although the revised PHA and FSS have still not been prepared in accordance with relevant guidelines, the Department considers that there is no significant risk from the proposed transfer station. This is primarily due to the type of material to be stored on site, which is non-hazardous to human health, and the distance between the tank farm and other surrounding buildings including proposed warehouse/office building. This distance exceeds 15 metres, and therefore complies with the relevant Australian Standard. It is also due to the fact that the closest residences are located approximately 800m from the site, and that the proposed mitigation measures would minimise any risk to the environment from the spillage of used oil (see below).

As discussed previously, Klekies proposes to bund the tank farm and the unloading/loading facility. The capacity of the bunded areas is significantly larger than that required by the relevant Australian Standard. Australian Standard 1940-2004: *The Storage and Handling of Flammable and Combustible Liquids* requires the capacity of the bunded area to be at least the capacity of the largest tank, or for this facility, 120,000L. The bunded area for the tank farm would have a capacity of 540,000L, providing sufficient capacity to contain all the used oil stored on site at any one time during a spill event. The bunded area for the tank farm would also have the capacity to contain fire water during a fire event, preventing both used oil and fire water entering the surrounding stormwater system. The capacity of the bunded area for the unloading/loading facility also exceeds the requirements of the Australian Standard, and is approximately 60% higher than the storage capacity required for delivery trucks/tankers. The Department is satisfied that the bunding proposed is more than adequate to contain any spills on-site.

Finally, Klekies has proposed a number of additional control measures to minimise risks. These measures include the design of the bunded area which allows spilt oil/fire water to be collected in a sump for appropriate disposal to a licensed facility; the installation of an alarmed floatation device within the bunded area to detect any spills when the plant is not in operation; and the design of the access and vehicle turning area. To minimise potential vehicle accidents, vehicles would be required to enter/exit the site in a forward direction, and trucks would be not be permitted to turn right to enter/exit the site: that is, trucks would enter the site from the west and would exit to the east along Christie Street.

Notwithstanding this, the Department believes Klekies should be required to:

- complete a Fire Safety Study and Final Hazards Analysis (FHA) in accordance with the Department's guidelines prior to operation;
- prepare and implement an Emergency Plan, detailing emergency procedures for on-site personal as well as people off-site who may be at risk from the project;
- prepare and implement a Safety Management System detailing on-site operations, the transport of hazardous materials, and measures to ensure nominated transport routes are followed; and
- submit a compliance report following the commencement of operations to verify specified transport routes are being followed, and the Emergency Plan and Safety Management System are being implemented and complied with.

It is noted that the design of the dewatering plant has not been finalised. As used oil would be heated to a temperature near to its flashing point, the Department has also recommended conditions of approval requiring Klekies to include a detailed assessment of the hazards and risks posed by the dewatering process as part of the preparation of the FHA.

In summary, the Department is satisfied that the facility does not pose a significant risk to human health or the environment, and is confident that any residual risks can be minimised

through the mitigation measures proposed by Klekies and the recommended conditions of approval.

5.2 Transport

The proposal would generate approximately 35 vehicle movements per day, consisting of 13 heavy vehicle movements (8-10 tonne collection trucks and a bulk tanker), and 22 light (employee) vehicle movements. Vehicles would primarily access the site from the M4 Motorway, Great Western Highway and The Northern Road.

The adjoining golf club raised concerns about the general impact of the proposal on local roads and traffic. The average daily traffic count for Christie Street in the vicinity of the proposed site is 15,583 (RTA, 2002). The proposed daily vehicle movement associated with the proposal represent a small percentage (less than 0.3%) of the total number of vehicles which use Christie Street, and even a smaller percentage of vehicles utilising regional/state roads such as the M4 Motorway, Great Western Highway and The Northern Road. The Department considers that the volume of traffic generated by the proposal would have a minimal impact on local and regional roads.

In addition, the Department is satisfied that the mitigation measures proposed by Klekies to minimise the potential for traffic accidents - such as the requirement for vehicles to enter/exit the site in a forward direction, and restricting truck movements to left in-left out – are adequate. However, to ensure that nominated routes are being followed the Department's recommended conditions of approval require the preparation and implementation of a Safety Management System, detailing the nominated routes and the measures that would be implemented to ensure adherence to those routes.

The existing access to the site is suitable for the project and does not require upgrading. The facility would include 9 car parking spaces on the site, which meets Council's requirements for industrial land. However, to ensure that vehicles do not impact on nearby roads, the Department's recommended conditions prohibit any vehicles associated with the project from queuing or parking on local roads in the vicinity of the site.

5.3 Waste

Waste would be generated during the construction and operation of the facility.

During construction, the proposal would generate a range waste, including vegetation from clearing, general waste currently present on site (such as plumbing materials, scrap metal etc), and excess materials from construction (e.g., fill, concrete and metals). Klekies propose to dispose all construction waste to a licensed waste facility.

During operations, the proposal would generate a range of waste material that would not be suitable for recycling, including some oils and waste sludge. Additionally, the pre-treatment (heating) of used oil would generate waste water. Upon delivery to the facility used oil would be tested at the on-site laboratory to ensure that it is suitable for recycling. Oil which is unsuitable would be treated off-site at a licensed facility.

Klekies propose to dedicate a tank for used oil and waste water that is required to be transported off-site for treatment. Tank 1 would be split into two sections, with oily/contaminated water diverted to Tank 1A and used oil not suitable for recycling diverted to Tank 1B. Any waste sludge generated would be placed in drums for disposal. Klekies would transport the oily/contaminated water, unsuitable used oil and waste sludge to an appropriately licensed facility for treatment and disposal. The DEC has provided its recommended conditions of approval, and has indicated that it could issue a licence for the facility, including the transport of the above mentioned waste.

While Klekies has not indicated the quantity of waste that would be generated during construction and operation, the Department is satisfied that the mitigation measures proposed are appropriate and any residual impacts can be managed.
However, the Department believes Klekies should be required to prepare and implement a Waste Management Plan for both the construction and operation of the proposed facility.

5.4 Soil and Water

Flooding
The proposed site is located approximately 400m to the east of South Creek, and is considered to be flood liable and therefore subject to the Council's *Interim Flood Policy*.

The adjoining golf club raised concerns about the potential flooding impacts of the proposal.

Minor filling is proposed for the warehouse/office building, with the building having a finished floor level of 22.3m. This level is consistent with the other buildings on site. The filling of flood viable land is supported under the *Interim Flood Policy* provided the proposal has a minimal increase in flood levels and downstream velocities; filling does not significantly redistribute flows; the flood liability of surrounding buildings and properties is not increased; and the filling does not create local flow/runoff problems. Council also requires that the tanks and associated bunding be designed to be at least 0.5 metres above the level of the 1 in 100 year flood, which is 21.8m AHD at the rear of the site.

The flood assessment indicates that the proposed fill would have minimal impact of flood levels and velocities, and would not increase the flood liability of surrounding properties including the Dunheved Golf Course.

In addition, the proposed bunds and tank farm would meet Council's design requirements, as the bunds would have a final height of 22.6m AHD, which is 0.8m higher than the 1 in 100 year flood level; and the base of the tank farm would be more than 0.5m above the 1 in 100 year flood level.

Consequently, the Department is satisfied that flooding impacts from the proposal would be minimal, and that the design of the tank farm and associated bunds comply with Council's requirements.

Soil Contamination
A preliminary site investigation for contamination was conducted in 1998 and updated in 2003, in accordance with *State Environmental Planning Policy No. 55 – Remediation of Land*.

Soil sampling for heavy metals, and organic substances including BTEX (benzene, toluene, ethylbenzene and total xylenes) and petroleum hydrocarbons indicated that levels of these contaminants were generally below relevant guideline levels. However, the site has a small amount of lead and tin contamination in the rear portion.

The site was previously owned by the Australian Defence Industry (ADI), and was used for the manufacture and maintenance of military equipment. Shot blasting activities have taken place in the areas where higher levels of lead and tin were detected, although contamination is limited to surface material and could be removed if required. The study concluded that the contamination on the site would not have any impact on groundwater in the area. The supplementary contamination investigation undertaken in 2003 indicated that there has been no additional contamination during the period between 1998 and 2003.

Limited excavation would occur during the construction of the proposed facility, and consequently there would be minimal disturbance of the areas where elevated levels of lead and tin have been detected.

Due to the limited construction works required on-site and the minor levels of soil contamination present, the Department is satisfied that that the site is suitable for its intended commercial/Industrial land use.

However, the Department believes Klekies should be required to dispose of all waste, including any contaminated soil, in accordance with DEC's guidelines on the *Assessment, Classification, and Management of Liquid and Non-Liquid Waste.*

5.5 Other Issues

Other issues raised during the assessment process and the Department's consideration of the issues are summarised in Table 2 below.

Table 2: Summary of Additional Environmental Issues

Issue	Comment	Recommendation
Construction Noise	• An assessment of construction noise has not been undertaken. • Construction would take approximately 4 to 5 months. • Proposed construction hours are consistent with DEC guidelines. • Department considers impacts from construction noise would be minimal	• Restrict construction work to day time hours. • Preparation and implementation of a Construction Noise Management Plan.
Operation Noise	• Assessment done in accordance with the *NSW Industrial Noise Policy* • Proposal complies with criteria for industrial premises. • Facility would be inaudible at nearest residence, approximately 800m from the site.	• Klekies to implement reasonable and feasible measures to minimise noise. • Operation be restricted to 6am – 6pm Monday to Friday, and 6am – 12pm Saturday.
Air Quality	• Assessment of air quality impacts during construction and operation was undertaken. • Current West Gosford used oil transfer facility has been operating for 15 years without being a source of odour complaints. • Department is satisfied that dust or odorous emissions from the facility would be minimal provided that the mitigation measures proposed by Klekies are implemented.	• Klekies to prepare and implement an Air Quality Management Plan to minimise dust and odour emissions during construction and operation.
Visual amenity	• Adequate setbacks are provided within which landscaping is proposed to improve the impacts on visual amenity. • No adverse impact will arise, given the industrial nature of the site and surrounding land uses, as well as the distance to residential areas.	NA
Cumulative Impacts	• The proposed development is located within an existing industrial area, and is not considered likely to result in excessive cumulative air, noise or traffic impacts.	NA

6. RECOMMENDED CONDITIONS

The Department has prepared recommended conditions of approval for the project. These conditions are required to:

- prevent, minimise, and/or offset adverse impacts of the project;
- set standards and performance measures for acceptable environmental performance;
- ensure regular monitoring; and
- provide for the ongoing environmental management of the project.

Klekies does not object to the imposition of these conditions.

7. CONCLUSION

The Department has assessed the proposal, and considers that the used oil transfer station would facilitate the safe collection, management, reuse and treatment of used oils from a range of industries throughout the Sydney metropolitan area.

The site is predominantly surrounded by other industrial developments and is located away from residential areas. The site has safe and adequate access and the Department is satisfied that the site is suitable for the proposal.

Additionally, the Department is satisfied that the hazards/risks, soil and water, traffic, waste and other impacts of the project can be adequately managed through conditions of approval and the Proponent's Statement of Commitments.

The Department is, therefore, satisfied that the proposal is in the public interest and should be approved subject to conditions.

7. RECOMMENDATION

It is recommended that the Minister:

- consider the findings and recommendations of this report;
- approve the project application, subject to conditions, under section 75J of the *Environmental Planning and Assessment Act 1979*; and
- sign the attached project approval (see Appendix A).

David Kitto
Director
Major Development Assessment

Chris Wilson
Executive Director
Major Project Assessment

APPENDIX A
RECOMMENDED CONDITIONS OF APPROVAL

APPENDIX B
RESPONSE TO SUBMISSIONS

APPENDIX C
SUBMISSIONS

APPENDIX D
ENVIRONMENTAL ASSESSMENT

APPENDIX E
ENVIRONMENTAL PLANNING INSTRUMENTS CONSIDERATION

The assessment of the proposed development is subject to the following environmental planning instruments and strategies:

- *State Environmental Planning Policy No 33 – Hazardous and Offensive Development; and*
- *State Environmental Planning Policy No.55 – Remediation of Contaminated Land.*

Consideration of the proposed development in the context of the objectives and provisions of these environmental planning instruments is provided below.

State Environmental Planning Policy No. 33

State Environmental Planning Policy No. 33 – Hazardous and Offensive Development applies to the site. SEPP 33 aims to identify proposed developments with the potential for significant off-site impacts, in terms of risk and/ or offence (odour, noise etc). A development is defined as potentially hazardous and/ or potentially offensive if, without mitigating measures in place, the development would have a significant risk and/ or offence impact on off-site receptors.

A Preliminary Hazard Analysis (PHA) was undertaken to assess the potential risks associated with the project. The Department has assessed the proposal against the provisions of SEPP 33 and considers that there is no significant risk from the proposed transfer station.

State Environmental Planning Policy No. 55

State Environmental Planning Policy No. 55 – Remediation of Land applies to the site. SEPP 55 aims to ensure that potential contamination issues are considered in the determination of a development application. Clause 7 of SEPP 55 states that:

7(1) A consent authority must not consent to the carrying out of any development on land unless:

(a) it has considered whether the land is contaminated, and

(b) if the land is contaminated, it is satisfied that the land is suitable in its contaminated state (or will be suitable, after remediation) for the purpose for which the development is proposed to be carried out, and

(c) if the land requires remediation to be made suitable for the purpose for which the development is proposed to be carried out, it is satisfied that the land will be remediated before the land is used for that purpose.

A preliminary site investigation for contamination indicated that levels of heavy metals and selected organics substances were generally below guideline levels and that the site was suitable for the proposed transfer station. The Department is satisfied with the consideration of SEPP 55 contained in the Environmental Assessment.