



Annual Environmental Management Report

Clyde Transfer Terminal

March 2017

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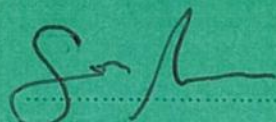
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Executive Summary

This Annual Environmental Management Report (AEMR) 2016-2017 is the 13th report prepared to detail the environmental performance of the Clyde Transfer Terminal (the Terminal), owned and operated by Veolia Australia and New Zealand (Veolia). This AEMR covers the period of 15 January 2016 to 14 January 2017 (2016-2017 reporting period).

Veolia has prepared, and submits this AEMR for the reporting period to the NSW Department of Planning and Environment (DPE) and the Environment Protection Authority (EPA), in accordance with Conditions 58 and 59 of Development Consent 205-08-01 and subsequent modifications (the Consent), as well as relevant legislative requirements and industry best practices.

This AEMR provides a summary of environmental monitoring conducted at the Terminal, non-conformances against the Consent during the 2016-2017 reporting period, as well as the corrective actions, where implemented to address such non-conformances.

In total, there were 5 non-conformances identified against the Consent during this reporting period, as follows:

- **Condition 10** - more than 500,000 tonnes per annum (TPA) of waste was received at the Terminal in the 2016 calendar year;
- **Condition 68** - it was identified in the annual Independent Environmental Audit (IEA) for the Terminal, that records of wastes leaving the premises by motor vehicle were not fully compliant;
- **Condition 102** – implementation of stormwater pollution controls at the Terminal was noted by DPE to not be satisfactory;
- **Condition 119** - Vehicles entered the Terminal by turning right off Parramatta Road;
- **Condition 134** - Veolia was not able to maintain a Community Consultative Committee (CCC) in this reporting period;

As a result of these non-conformances, and a number of regulatory actions during this reporting period, corrective actions and resulting onsite operational improvements have been implemented at the Terminal to maintain environmental performance. Traffic, odour and stormwater quality assessments were undertaken to understand the environmental impact of increasing waste tonnage and effectiveness of pollution controls at the Terminal. A modification to the Consent has been submitted to the DPE as a result of the recommendations of these assessments. These are further discussed in this AEMR.

1. Introduction

1.1 Site Background

The Terminal is located within a portion of the Clyde Rail Yard at 322 Parramatta Road and forms part of Lot 21 of DP10076683 in the Auburn Council area. A site layout and location plan is provided in **Appendix A**.

The Terminal was granted ministerial approval in 2003 to operate under the Clyde Waste Transfer Terminal (Special Provisions) Act 2003 (assented 8 December 2003), and is approved under the Consent, to receive up to 500,000 tonnes per annum (TPA) of mixed waste which is containerised and loaded onto rail wagons for transportation to the Woodlawn Bioreactor, also owned and operated by Veolia.

1.2 Legislative Requirements

The main legislative instruments governing the environmental performance and activities undertaken at the Terminal include the *Environmental Planning and Assessment Act 1979* (EP&A Act) regulated by the DPE, and the *Protection of the Environment Operations Act 1997* (POEO Act) regulated by the EPA, as well as their respective associated regulations. The Terminal is also governed under the *Clyde Waste Transfer Terminal (Special Provisions) Act 2003*.

In addition to the Consent, an Environment Protection Licence (EPL) 11763 has been issued by the EPA, under the POEO Act, to regulate the operational activities conducted at the Terminal.

Conditions of the Consent (hereby referred to as the Consent Conditions) stipulate the requirements that need to be addressed to maintain compliance. Consent Conditions relevant to the preparation of this AEMR are provided in **Table 1.1** below.

Table 1.1 – Consent Conditions 58 and 59

Relevant Condition	Requirement
GENERAL ENVIRONMENTAL MANAGEMENT	
<i>Environmental Monitoring Program</i>	
58	The Applicant shall include a report on the Environmental Monitoring Program in the Annual Environmental Management Report. The report must: a) summarise the results from the Environmental Monitoring Program over the previous year b) analyse the results in relation to both past performance, and the relevant standards and performance measures of the development c) identify any emerging trends in the data over the life of the development d) include a copy of the detailed monitoring results as an attachment.

Relevant Condition	Requirement
Annual Environmental Management Report	
59	Between twelve and fourteen months after the issue date of an environment protection licence for the development, and annually thereafter for the duration of the development, the Applicant shall submit an Annual Environmental Management Report to the Secretary, the EPA and the Community Consultative Committee. The report shall be made available to the public on request to the Applicant. The report may be combined with the Annual Return required by the environment protection licence to be submitted to the EPA. The report must: a) identify all the standards, performance measures, and statutory requirements the development is required to comply with b) review the environmental performance of the development to determine whether it is complying with the standards, performance measures, and statutory requirements c) identify each occasion during the previous year when the standards, performance measures, or statutory requirements have not been complied with d) where any non-conformance is identified, describe the actions or measures taken to ensure compliance, who is responsible for carrying out the actions, and when the actions were (or will be) implemented e) include a summary of any complaints made about the development, and indicate the actions taken to address the complaints f) include a report on the Environmental Monitoring Program as specified in this Consent

1.3 Responsibilities

The Environmental Management Representatives for this reporting period were Toni Pezzano (Acting General Manager - NSW SHEQ) and, in an acting capacity, Ramona Bachu (NSW Environment Officer) as per Consent Condition 55.

Environmental monitoring was undertaken and/or supervised by the NSW Resource Recovery technical support personnel – Sara Maddison (Environmental Engineer – Resource Recovery) and Stephen Bernhart (Project Manager – Resource Recovery). Analyses of samples were performed at Australian Laboratory Services Pty Ltd (ALS), which is a NATA accredited laboratory. The Odour Unit Pty Ltd (TOU) was appointed to conduct odour audits and weather station services. Calibrations of the weather stations were completed by Hydrometric Consulting Services.

An IEA was conducted by Ramboll Environ Australia Pty Ltd. The audit team associated with this IEA included Victoria Sedwick (Lead Auditor), David Ford (Auditor) and Ronan Kellaghan (Auditor) which was approved in writing by the DPE, in accordance with Consent Condition 60.

2. Environmental Monitoring & Management

2.1 Terminal Monitoring Requirements

Veolia is required to monitor the environmental performance at the Terminal in accordance with the Consent. **Table 2.1** summaries the environmental monitoring program for the Terminal and a monitoring location plan is provided in **Appendix B**.

Table 2.1 – Environmental Monitoring conducted at the Terminal

Condition Ref	Type of Monitoring	Frequency	Date Conducted
91	Meteorological	Continuous (15 minute intervals)	-
48(f)	Odour Audit	Biannually	18 th May 2016 09 th November 2016
50	Traffic	Monthly	-
112	Heavy Vehicle Noise	Annually	07 th August 2016
60	Independent Environmental Audit	Annually	18 th September 2016

2.2 Air Quality

2.2.1 Meteorology

Veolia operates an automated onsite weather station (Campbell Scientific Model CR800) to continuously log meteorological data in accordance with Consent Condition 91. This allows sampling and analysis of the parameters specified in **Table 2.2** below, along with the standards and statutory requirements to collect and record this data.

Table 2.2 – Metrological data parameter and performance measures

Parameter	Performance Measure	Standards	Statutory Requirement
Wind Speed	Data correlated with other environmental monitoring results for Terminal operations and complaint resolution	Am-2 & AM-4	Consent Condition 91.
Wind direction		AM-2 & AM-4	
Sigma Theta		AM-2 & AM-4	
Temperature		AM-4	

Parameter	Performance Measure	Standards	Statutory Requirement
Rainfall		AM-4	
Solar Radiation		AM-4	
Evaporation		Standard Type A plan	

Captured meteorological data provides a general understanding of the ambient air conditions at the Terminal, which in turn allows us to use this data within investigations of potential odour and dust complaints as well as other environmental incidents. Justification for the collection of specific meteorological data is provided below.

Wind Speed, Wind Direction and Sigma Theta

Wind speed, direction and sigma theta (which is used to calculate turbulence) are logged at 15 minute intervals, the data from which is used to respond to odour and noise complaints, on receipt. No odour or noise complaints were received in this reporting period.

Temperature and Solar Radiation

In combination with wind speed, temperature and sunlight (solar radiation) play an important role in odour and dust emission modelling to predict airflow patterns and atmospheric stability. In the event that a complaint is received, these parameters would be used to conduct assessments to identify whether adverse air quality impacts can be attributed to operations at the Terminal.

Evaporation

Evaporation measures the extent of vaporisation of a liquid into gaseous phase. Water molecules are small and highly polar, and so can bind to many substances including odourous gases and dust particles. Therefore evaporation can be used to conduct dispersion modelling in the event of an odour and/or dust complaint.

Rainfall

Rainfall data is measured and recorded at 15 minute intervals at the Terminal to provide an understanding of rainfall patterns and to highlight significant rainfall events. Rainfall generally affects the emissions of dust and odours as it is able to wash particulate matter and dissolves gaseous pollutants out of the atmosphere. Given this, rainfall data is utilised within responses to odour and/or dust complaints.

In addition, the intensity and duration of stormwater events at the Terminal can be used to assess the performance of the existing stormwater management system.

A summary of monthly rainfall and evaporation rates, as well as minimum and maximum monthly temperatures at the Terminal during this reporting period is presented in **Figures 2.1** and **2.2** respectively. Overall, the average rainfall for the Terminal during this reporting period was recorded at 2.97mm per month.

Servicing and calibration of the meteorological station is carried out quarterly by Hydrometric Consulting Services. Calibration records for the meteorological station are provided in **Appendix C1**.

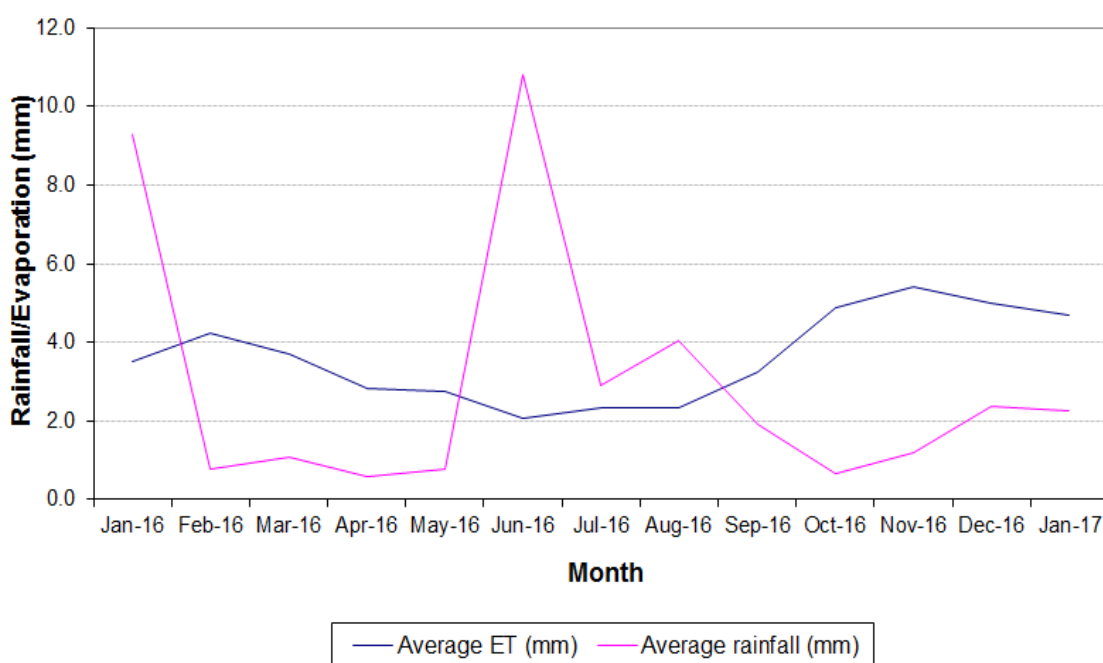


Figure 2.1 – Average evaporation and rainfall rates at the Terminal

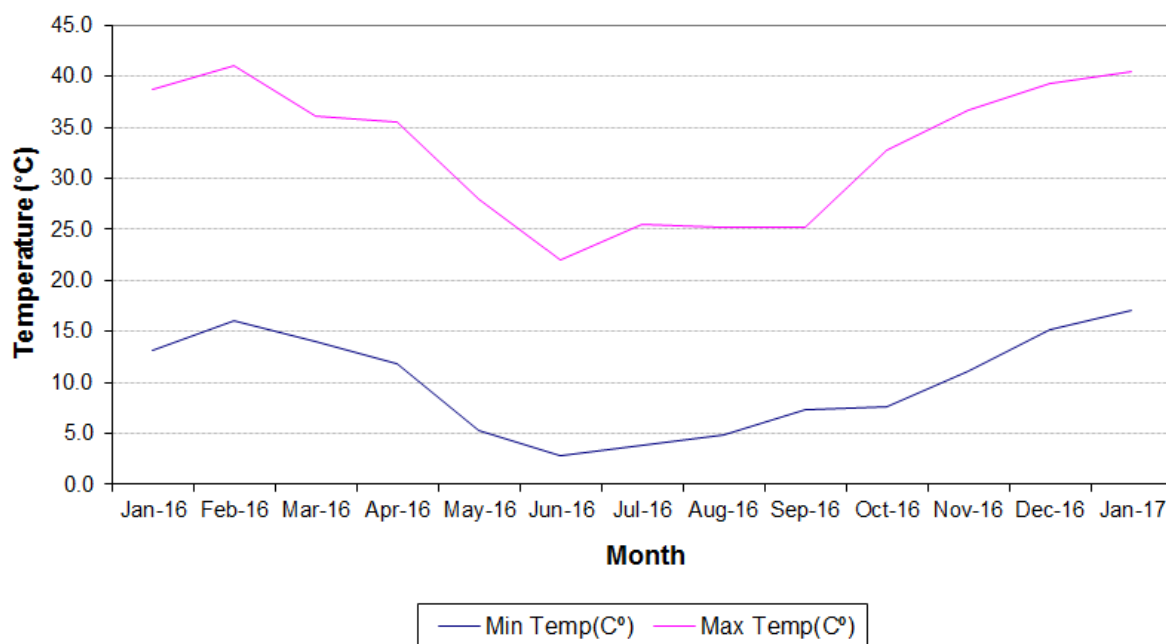


Figure 2.2 – Average minimum and maximum temperatures at the Terminal

2.2.2 Odour

Bi-annual odour audits were conducted by TOU in accordance with Consent Condition 48. Records of the odour audits for this reporting period are provided in **Appendix C2**.

The odour audits were conducted using the ranking scale stipulated within the German Standard VDI 3940 'Determination of Odorants in Ambient Air by Field Inspections'. The standard ranking system is based on the following seven-point intensity scale, as follows;

VDI 3940	Intensity Scale
0	Not Detectable
1	Very Weak
2	Weak
3	Distinct
4	Strong
5	Very Strong
6	Extremely Strong

Table 2.3 below provides a summary of the odour audit results.

Table 2.3 – Summary of Odour Audit Results 2016/2017

Assessment Location	18/05/2016	Assessment Location	09/11/2016
1 – Onsite (North-West)	0	1 – Onsite (North-West)	2
2 – Onsite (South-East of Compactors)	0	2 – Onsite (South-East of Compactors)	1
3 – Onsite (South of Transfer Building)	2*	3 – Onsite (South of Transfer Building)	0
4 – Offsite (North – Driveway Entrance)	3*	4 – Offsite (North – Driveway Entrance)	0
5 – Offsite (North – Parramatta Road)	0	5 – Offsite (Clyde/Granville Residential)	0
6 – Offsite (Clyde/Granville Residential)	0	6 – Offsite (Clyde/Granville Residential)	0
7 – Offsite (Clyde/Granville Residential)	0	7 – Offsite (Granville Residential)	0
8 – Offsite (Clyde/Granville Residential)	3*	8 – Offsite (Granville/Auburn Residential)	-**
9 – Offsite (Clyde/Granville Residential)	0	9 – Offsite (Granville/Auburn Residential)	-
10 – Offsite (Clyde/Granville Residential)	0	10 – Offsite (Granville/Auburn Residential)	-
11 – Offsite (Clyde/Granville Residential)	0	11 – Offsite (Granville/Auburn Residential)	-

* The origin of these odours could not be verified by the auditors and were not characteristic of an odour generated from the Clyde Transfer Terminal. The auditors also note the occurrence of a fire incident in Auburn on the day of the audit, which may have affected general ambient air quality in the region.

** Locations 8 to 11 were not assessed during the 09 November 2016 audit due to light showers which caused a termination of the odour survey.

The results of the odour audits indicate that the Terminal generally complies with Consent Condition 48E which states that odour at the Terminal shall not exceedance 2OU at the nearest receiver, with exception to Points 4 and 8 during the May odour audit (18/05/2016).

Despite this exceedance, the TOU noted that a fire at a nearby factory (11 Highgate Street, Auburn) was occurring during the time of the odour audit and may have affected general ambient air quality in the region.

It should also be noted that the prevailing wind direction at the time of the audit was in a West to South-Western direction which flows from Highgate Street towards Points 4 and 8, as illustrated within the audit's Field Ambient Odour Assessment Survey.

It is therefore likely that this factory fire contributed to the higher odour results taken at assessment locations 3, 4 and 8 as they were downwind of the fire source.

Overall the results from the Odour Audits (May 2016 and November 2016) indicate that odours detected offsite cannot be linked back to the Terminal. TOU also advised that the Terminal's odour management system was satisfactory and operating efficiently during both audits.

The Terminal continues to meet the requirements of the *Technical framework: assessment and management of odour from stationary sources in NSW (DEC, November 2006)*. Veolia also maintains a thorough housekeeping regime, combined with odour management controls, which helps to minimise the likelihood of odour impacts on surrounding neighbours/receivers.

2.3 Noise Monitoring

Noise monitoring is undertaken at the Terminal to ensure that waste vehicles entering the Terminal are not emitting nuisance noise emissions. **Table 2.4** lists the parameters, respective performance measures, standards and statutory requirements for background noise levels and vehicle emissions limits.

Table 2.4 – Noise Monitoring Requirements

Parameter	Performance Measure (dB(A))	Standards	Statutory Requirement
Day – $L_{Aeq(15minute)}$	44,40,41	Noise Management	EPL Condition L3.1
Evening – $L_{Aeq(15minute)}$	38,38,39	NSW Industrial Noise Policy	
Night – $L_{Aeq(15minute)}$	39,38,39		
Night – $L_{A1(1minute)}$	56,54,52		
Vehicle Emissions	89		Consent Condition 112

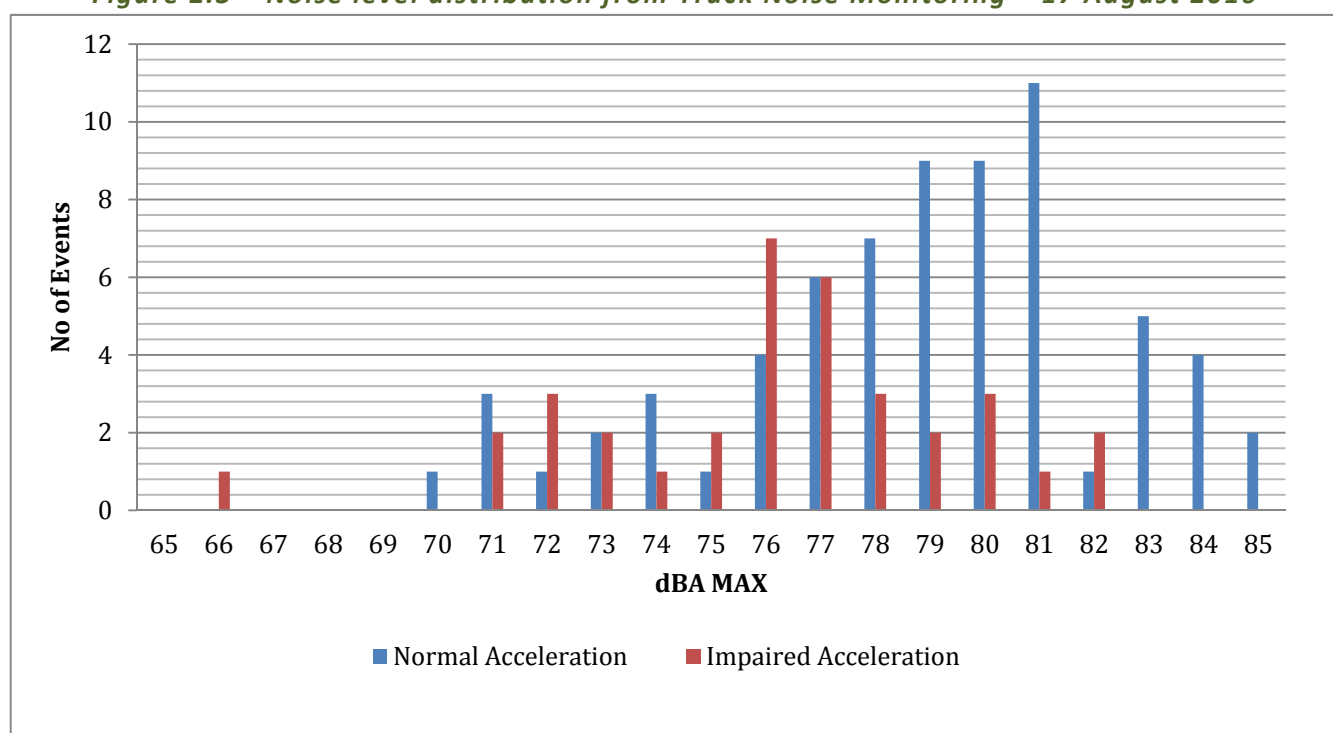
2.3.1 Truck Noise Monitoring

One round of truck noise monitoring was undertaken in accordance with Consent Condition 112 for this reporting period. Noise levels of 108 truck movements out of a daily total of 317 truck movements were measured, equivalent to 34% of truck movements. A summary of the results is illustrated in **Figure 2.3**. Further details regarding truck movements at the site is discussed in Section 2.4.1.

All trucks monitored were between 65 to 85 dB(A), which fell within or below the thresholds of 81 to 87 dB(A) for Heavy Goods Vehicles with a GVM >12 tonne in accordance with the Australian Design Rules (ADR) 28/01.

A detailed truck noise monitoring report can be found in **Appendix C3** for the 2016-2017 reporting period. There were no registered noise complaints from either industrial or residential neighbours throughout this reporting period

Figure 2.3 – Noise level distribution from Truck Noise Monitoring – 17 August 2016



2.4 Traffic Monitoring

2.4.1 Traffic Movements

Vehicle movements at the Terminal during this reporting period totalled at 91,875, as summarised in **Table 2.5** below.

Table 2.5 – Traffic Movements per month for 2015/2016 and 2016/2017 reporting periods

Monitoring Period	2015/2016 Truck Movements	2016/2017 Truck Movements
15 to 31 January	4,173	4,370
February	6,855	8,229
March	7,390	8,541
April	7,549	7,924
May	7,513	8,242
June	7,166	8,076
July	7,732	7,845
August	7,762	8,184
September	7,883	7,060
October	8,275	6,409
November	7,952	6,523
December	8,323	7,394
1 to 14 January	3,657	3,081
Total	92,330	91,875

During this reporting period there was a general increase of truck movements between January and August before a significant decrease in the later months. Overall, **Table 2.4** illustrates that there was a slight reduction of 455 truck movements at the Terminal during this reporting period compared to the previous year. This reduction in vehicle movements can be attributed to a general reduction in waste accepted at the Terminal for this reporting period which is later discussed in Section 2.5.

As stated earlier, no noise or odour complaints were received during this reporting period which demonstrates that the movements of trucks at the Terminal did not contribute to any significant noise/odour impacts to the surrounding environment.

2.4.2 Traffic Infringements

A monitoring and recording program for transport routes in accordance with Consent Conditions 50(b) and 50(d) is described in the Operational Environmental Management Plan (OEMP) for the Terminal. The measures employed to monitor and record the movement of vehicles that access the site include:

- Spot monitoring of vehicles by the Terminal's operational personnel, as well as video surveillance monitoring of truck movements on site are undertaken, as required;
- Reviewing of any complaints related to transport routes; and
- Follow-up action, including issuing verbal warnings, as required, to drivers committing traffic offences on site; and
- Follow-up action taken by NSW Sales Manager through direct communication with account holders regarding the Terminal's Consent Conditions.

A blitz of traffic spotting was undertaken at the Terminal to monitor traffic infringements against Consent Condition 119. During this monitoring, it was observed that a number of waste vehicles continue to turn right from Parramatta Rd into the Terminal, which has been noted as a non-conformance against Consent Condition 119 for a number of years.

To rectify this, Veolia commissioned Colson Budd Rogers & Kafes Pty Ltd to conduct a traffic impact assessment (TIA) for the Terminal in December 2016. The purpose of this TIA was to review the impacts associated with waste vehicles turning right off Parramatta Road on local road networks (including Parramatta Road).

The TIA demonstrates that waste vehicles currently turning right off Parramatta Road into the Terminal are doing so without difficulty and with minimal impact on local road networks due to the use of the existing right turn bay. This was confirmed by a SIDRA network analysis which simulated the operation of the controlled intersection of the Terminal's site access road and Parramatta Road.

In addition, while the TIA was being conducted a number of vehicles were sighted accessing the Terminal via the internal access road to Rawson Street, which may be considered as a non-conformance against Consent Condition 118. However, it should be noted that it cannot be determined whether these vehicles were associated with the operation of the Terminal. The TIA also confirmed that vehicle access to and from Rawson Street on the local road network would not adversely affect road capacity or levels of service.

Based on these findings, it was recommended to modify Consent Conditions 118 and 119, to allow vehicles to access the Terminal via the internal access road to Rawson Street, and remove restrictions on right hand turns from Parramatta Road into the Terminal access road.

These proposed modifications as well as the justifications of these modifications are detailed in a collective modification application which was submitted to the DPE in February 2017.

This modification application addresses the demonstrated demand for additional waste processing in Sydney, and provides Veolia's justification in relation to a number of proposed modifications, which is mentioned throughout this AEMR and discussed in Section 3.

2.5 Waste

The Waste Management Plan (WMP), which forms part of the OEMP was prepared for the Terminal in accordance with Consent Condition 47, and 62–69, and details the procedures for the acceptance and management of waste at the Terminal.

All waste received at the Terminal is recorded and maintained in the Systems, Applications and Products in Data Processing (SAP) software. The program records the vehicles registration, date and time of entry and exit, the gross and tare weight of the vehicle, as well as the nature and origin of waste received by each contractor.

Procedures are in place to reject or separate non-conforming waste upon arrival at the site. These procedures include visual assessments of incoming wastes by weighbridge operators assisted by closed circuit television (CCTV), as well as inspecting the waste as it is unloaded onto the tip floor. No records of non-conforming waste were reported during this reporting period.

Furthermore, data is recorded and tracked for the containers and includes container status, container weight comparisons and carbon filter replacement. This information is maintained daily by Terminal personnel.

2.5.1 Waste Monitoring

The amount of waste accepted at the Terminal in 2016 totalled at 529,090.01 tonnes, as summarised in **Table 2.6** below. This is approximately 300 tonnes less than the previous year.

Table 2.6 – Summary tonnage per month during 2015 & 2016

Monitoring Period	Incoming Waste Volumes 2015 (tonnes)	Incoming Waste Volumes 2016 (tonnes)
January	44,039.48	47,337.73
February	40,526.18	47,943.18
March	49,868.55	49,640.81
April	40,471.49	45,700.85
May	40,521.52	45,952.35
June	47,325.25	45,354.64

Monitoring Period	Incoming Waste Volumes 2015 (tonnes)	Incoming Waste Volumes 2016 (tonnes)
July	38,837.12	43,047.62
August	39,898.89	45,691.97
September	52,414.16	40,317.09
October	43,542.35	36,742.48
November	45,649.22	38,187.33
December	46,291.98	43,174.05
TOTAL	529,386.19	529,090.01

Table 2.6 indicates that the Terminal has exceeded the annual waste limit as stipulated within Consent Condition 10. This exceedance is attributed to a number of external factors, including the temporary closure of the SUEZ Auburn Transfer Terminal in early 2016 which has led to ongoing diversion of waste to the Terminal and/or delayed commencement of operations of the Veolia owned Banksmeadow Transfer Terminal (BTT). Veolia was diverting customers contracted to use the BTT to the Terminal, while the new facility was being constructed.

To rectify this non-conformance, Veolia has sought for a modification of Consent Condition 10 to allow for the Terminal to accept up to 600,000 TPA. This proposed modification is addressed within the collective modification application as previously mentioned in Section 2.4.2.

Potential traffic, air quality and noise impacts associated with the proposed increase in waste throughput at the Terminal have been assessed in detail within the application, which is further discussed in Section 3.

2.6 Pest and Vermin

Pests and vermin management is undertaken at the Terminal to ensure that the control measures implemented, to minimise the potential for birds, rodents, flies and other pests, remain effective. The primary means of controlling pest and vermin activity is through good housekeeping measures and daily inspections. **Table 2.7** below identifies the housekeeping undertaken at the Terminal to manage pest and vermin.

Table 2.7 – Pest and Vermin Management

Parameter	Incoming Waste Volumes (tonnes)	Standard	Statutory Requirement
Litter Control	Visual Inspection	Veolia National Integrated Management System	Vermin and Pest Control Plan
Vermin Habitat			Consent Conditions 51,115-117

Pest control was undertaken by an external contractor (Expert Judgement Pest Management Pty Ltd) throughout this reporting period. In addition to this, inspections are undertaken on a routine basis by the Terminal's operators, as part of general housekeeping and recorded on relevant Housekeeping and Inspection Checklists.

This form provides a record of the visual monitoring undertaken at the Terminal and provides opportunity to identify where additional corrective actions may need to be applied.

No pest and vermin management issues were reported for this reporting period.

3. Environmental Performance

3.1 Environmental Performance

The environmental performance of the Terminal is assessed through the results of environmental monitoring, internal inspections, as well as external environmental audits.

An Independent Environmental Audit (IEA) of the Terminal's environmental performance was carried out on 29 September and 18 October 2016 by Ramboll Environ Australia Pty Ltd. The objective of this IEA was to assess the environmental performance of the Terminal, as required under Consent Condition 60. Non-conformances against the Consent during this reporting period were identified by the IEA.

A discussion of these non-conformances, as well as the corrective actions, where implemented, is provided within this section. A comparison is also made to the non-conformances and corrective actions implemented in the previous reporting period to present the changes to the environmental performance of the Terminal.

3.1.1 2015-2016 Non-Conformances and Corrective Actions

All non-conformances and corrective actions identified and implemented during the previous reporting period are provided in **Table 3.1** below. These non-conformances are also addressed in the previous 2015-2016 AEMR.

Table 3.1 – Non-conformances reported in the 2015-2016 reporting period

Relevant Condition	Non-Conformance/Regulatory Actions	Corrective Actions
10	A total of 529,386 tonnes of mixed-waste was accepted at the Terminal during 2015 which exceeds the limit of 500,000 tonnes per annum (TPA) as stipulated within the Consent Conditions. This exceedance was due to a number of external factors including non-Veolia facilities unable to maintain their operations which resulted in a diversion of waste to the Terminal. DPE issued a Penalty Infringement Notice (PIN) for this 2015 exceedance on 15 October 2016.	Veolia notified the DPE of the exceedance, and a modification application submitted to request temporary increase of the annual limit to 550,000 TPA. This application was not finalised.

Relevant Condition	Non-Conformance/Regulatory Actions	Corrective Actions
88	Meteorological data from the on-site weather station was lost between 23-25 March as well as between 28 March to the 7 April due to equipment failure.	The data logger was replaced with a new logger (model CR800) and has since run continuously without fault. No such faults were identified in the 2016-2017 reporting period.
119	Waste vehicles were sighted turning right off Parramatta Road into the Terminal.	Drivers committing traffic offences on site were issued verbal warnings and site inductions/refreshers were provided, where required. During the 2015-2016 reporting period, Veolia corresponded with the DPE on the difficulties in implementing controls to meet the requirements of Condition 119 and intention to seek a modification of this condition.
134	Veolia has not been successful in facilitating Community Consultative Committee (CCC) meetings as stipulated in the Consent Conditions.	Veolia continued to encounter a lack of interest from relevant stakeholders in participating in the Clyde Community Consultative Committee (CCC). Efforts to directly engage with the former Auburn Council to establish other methods of consultation were also unsuccessful.

3.1.2 2016-2017 Non-Conformances and Corrective Actions

The non-conformances identified during the 2016-2017 reporting period are detailed in **Table 3.2** below, corrective actions to resolve/manage these non-conformances are also provided.

Table 3.2 – Non-Conformances against the Consent reported in the 2016/2017 reporting period

Relevant Condition	Non-Conformance/Regulatory Action	Corrective Actions
10	A total of 529,090 tonnes of mixed-waste was accepted at the Terminal during 2016 which exceeds the limit of 500,000 TPA as stipulated by Consent Condition 10.	In February 2017, Veolia submitted an application to the DPE to seek a modification of a number of Consent Conditions Modification of Condition 10 was sought to permanently increase the annual waste acceptance limit of the Terminal to 600,000 TPA as part of this application. Justification for this modification was based on a demonstrated demand for additional waste processing in Sydney, and the ability to use the existing capacity at the Terminal. Leachate, traffic, odour and acoustic management measures remain fit for purpose as confirmed by the impact analysis undertaken as part of this proposed modification.
68	Records are maintained of waste leaving the site by motor vehicle; however, not all records include the weight (e.g. loads of gas cylinders) This was identified as an administrative non-conformance within the IEA.	Procedures associated with record keeping of waste leaving the Terminal has been reviewed to ensure that all required data is recorded in the next reporting period as per Consent Condition 68.
102	Stormwater management at the Terminal does not fully meet the minimum levels of treatment as stipulated by Consent Condition 102. In particular, the car park does not drain to the GPT and on-site detention. It should be noted that this non-conformance was identified during a joint site inspection by the EPA and DPE on 15 June 2016. Following this inspection, a show cause letter was issued by the DPE in July 2016. Correspondence from the DPE in regards to this show cause letter is provided in Appendix D.	Veolia has commissioned a stormwater and leachate management system review of the Terminal and a proposed design is to be carried out by Consult In. Veolia is currently in consultation with Consult In to construct the proposed designed in the near future. An in-line autosampler was installed by Endres and Hauser in January 2017 to monitor stormwater discharge quality at the Terminal and will be commissioned in the following reporting period.

Relevant Condition	Non-Conformance/Regulatory Action	Corrective Actions
119	Waste vehicles were sighted turning right off Parramatta Road into the Terminal.	Site inductions/refreshers, where required, were communicated to drivers identified as committing traffic offences. In addition, letters are sent out to Veolia customers to ensure they are familiar with the operations and conditions at the Terminal as part of the induction/refresher process Veolia has sought for a modification or removal of Consent Condition 119 as part of the modification application submitted in February 2017. A Traffic Impact Assessment (TIA) for the Terminal was conducted in December 2016 to support this modification application. This TIA found that vehicles turning right from Parramatta Road are doing so with minimal impact to local road networks. Whilst the TIA was being conducted, vehicles were sighted accessing the Terminal, using the internal access road to Rawson Street, but it was not determined if the vehicles were associated with the Terminal operations. The modification application provides justifications of the intended modification of condition 118 and seeks to allow vehicles to access the Terminal via the internal access road to Rawson Street.
134	Veolia has not been successful in facilitating CCC meetings as stipulated in the Consent Conditions.	Veolia has observed a continual lack of interest from relevant stakeholders in participating in the Clyde Community Consultative Committee (CCC), which was described to the DPE. Veolia has sought for a modification of Consent Conditions 134-136 as part of the modification application submitted in February 2017. Veolia will continue to respond to any concern from the community on an as needs basis.

3.1.3 Other Regulatory Non Compliances

Veolia was also issued a Clean Up Notice and subsequent Penalty Infringement Notice (PIN) No. 3085780372 by the EPA following an inspection of the Terminal on 8 June 2016. During this inspection it was observed that fluid was leaking from certain waste storage containers with the potential to enter and pollute the stormwater system. As a result of this incident, the EPA deemed that Veolia was in breach of condition O1.1 of EPL 11763 which requires that licensed activities must be carried out in a competent manner.

Veolia has since implemented a container maintenance program which involves replacing the seals on every shipping container with a design which ensures they are watertight over a longer lifespan. This program was completed on 6 February 2017. A stormwater pollution prevention procedure was also developed for the Terminal which describes the procedures to be followed in the event of a spill during a storm event.

As a result of this incident Veolia has commissioned a review of the stormwater and leachate management system at the Terminal and a proposed design is scheduled to be constructed in 2017. Veolia has also developed a new internal environmental compliance audit tool which enables the tracking of the environmental performance of the Terminal against regulatory requirements as a proactive measure.

3.2 Complaints

Veolia operates a website which contains contact details for the NSW General Enquiries Line whereby a complaint can be lodged to a specific site. These contact details are also provided onsite via contact signage. The procedures followed for the communication with external parties is provided in **Appendix E**.

Complaints (either written or verbal) are documented to record the following;

- Nature and extent of the complaint;
- Method by which the complaint was made;
- Name and address of the person lodging the complaint (the complainant);
- Details of all related factors including location, dates, frequency, duration, site conditions and effects of the complaint; and
- Action taken to address the complaint including follow up contact with the complainant.

Contact details of nominated personnel relevant to the complaints handling process for the Terminal are provided in **Table 3.3** below.

Table 3.3 – Contact details of complaint handling personnel

Contact	Position	Contact Details
Ash Turner	Clyde Facilities Manager/ Environmental Management Representative	ash.turner@veolia.com 0428 796 834
Ramona Bachu	NSW Environment Officer	ramona.bachu@veolia.com 0407 668 199
Jason Long	Site Leading Hand (morning shift)	jason.long@veolia.com
Gary Pettitt	Site Leading Hand (afternoon shift)	gary.pettitt@veolia.com 0429 103 986

No complaints were received during this reporting period.

3.3 Conclusion

A review of the non-conformances between the 2015-2016 and 2016-2017 reporting periods demonstrates that the management of incoming waste volumes, traffic movements and consultation with the CCC remains an issue for the Terminal. It should be noted however that these non-conformances are generally influenced by external factors, for instance; an increased demand for waste processing in Sydney, traffic infringements carried out by site visitors/clients and a lack of interest from CCC stakeholders.

In February 2017, Veolia submitted a modification application to the DPE to modify and/or remove certain conditions of the Consent, under section 75W of the EP&A Act 1979. The modifications sought after by Veolia included;

- Increased annual waste input rate from 500,000 TPA to 600,000 TPA.
- A number of other changes to conditions of consent relevant to traffic management; and
- The need for a community consultative committee.

In general, this modification application addresses the demonstrated demand for additional waste processing in Sydney, and provides Veolia's justification in relation to the proposed modifications of the Consent.

The potential traffic, air quality and noise impacts associated with the proposed modifications have been assessed in detail within the application, and it is concluded that all residual impacts associated with the proposed increase in waste throughput can be managed and mitigated to within acceptable limits subject to additional management measures.



Overall, despite the number of regulatory actions during this reporting period a number of corrective actions have been implemented as a result of the identified non-compliances.

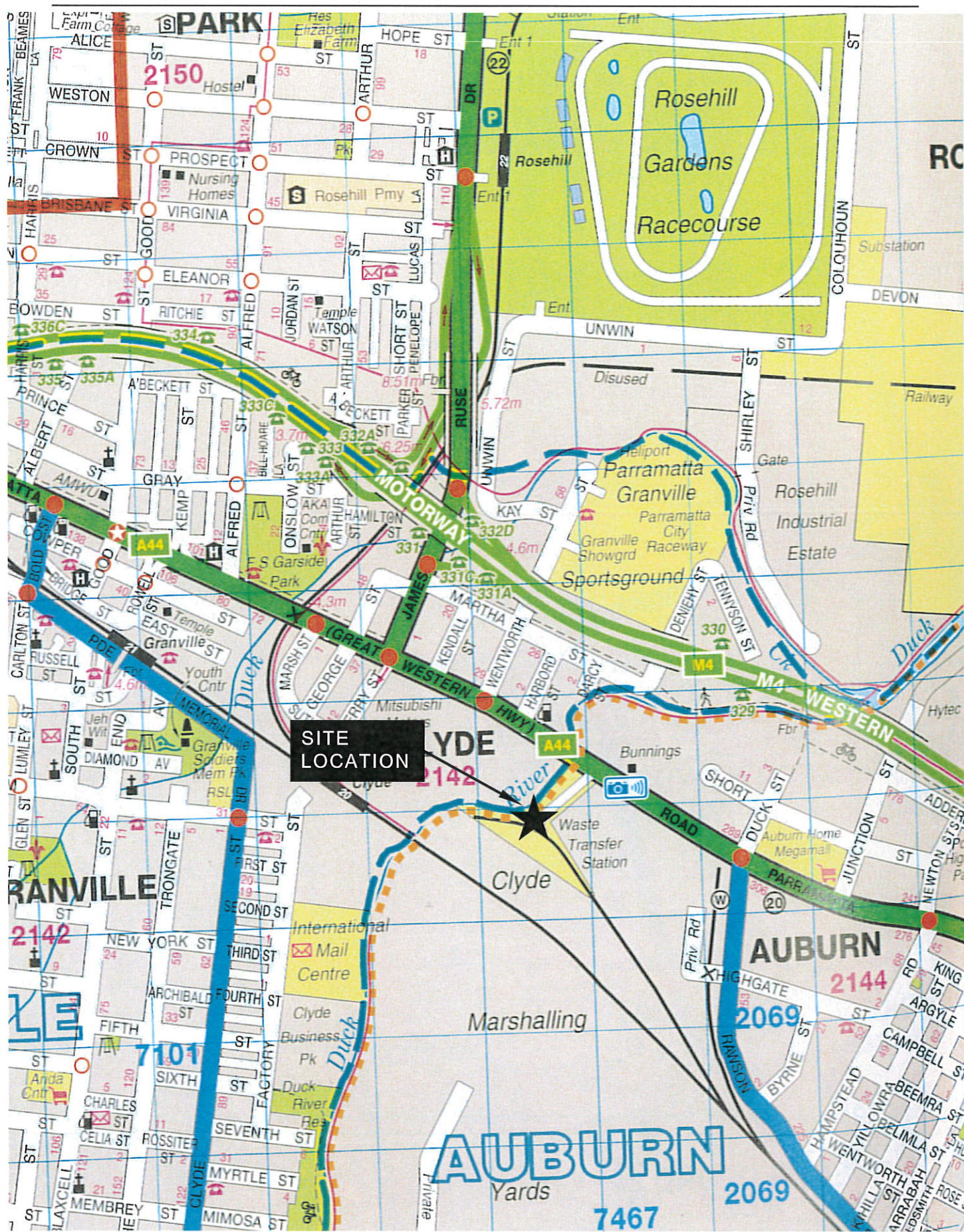
As a result of these corrective actions a number of improvements have been made in regards to the environmental management of the Terminal, including a new container maintenance program, improvements to the Terminal's stormwater system as well as a new governance and compliance tracking audit tool. Veolia will continue to review and track its performance against the Consent, as well as introduce measures to better manage environmental performance at the Terminal.

4. References

- DEC (2006). *Technical framework: assessment and management of odour from stationary sources in NSW*, Department of Environment and Conservation. November 2006
- EPA (2014). *NSW Waste Classification Guidelines*, NSW Environmental Protection Agency. January 1996.
- Ramboll Environ (2017). *Clyde Transfer Terminal Independent Environmental Audit 2016*, Ramboll Environ. February 2017
- VES (2015). *Riverstone Waste Management Facility Annual Environmental Monitoring Report*. Veolia. August 2015.

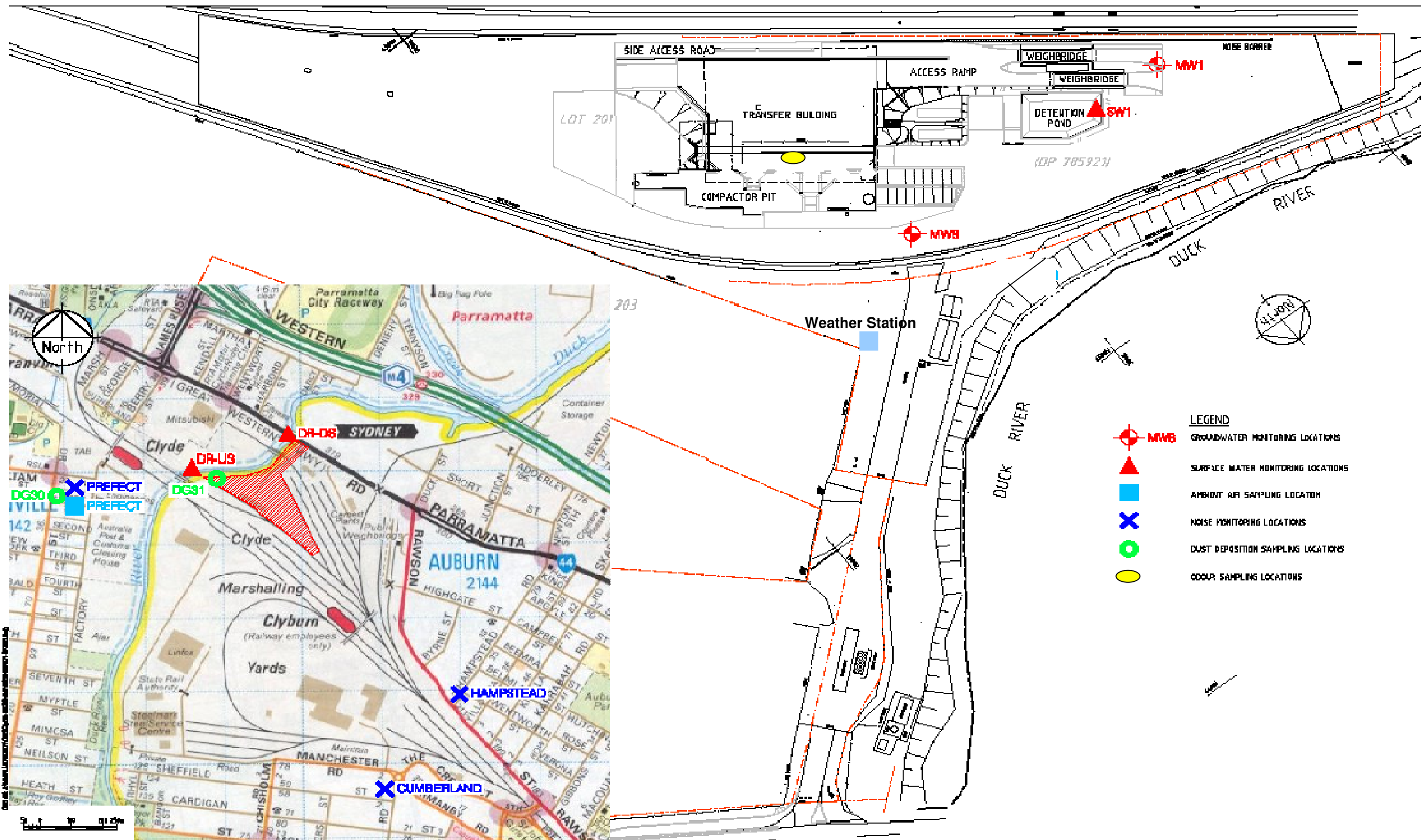
5. Appendices

Appendix A – Site Location Plan





Appendix B – Environmental Monitoring Locations Plan



REVISIONS						Notes concerning every, all working drawings developed under contract to the site, including those relating to property, other drawings, and so on. Notes concerning the previous drawings in this set.	SCALE 1:1000	© COPYRIGHT This drawing and design are the property of MAUNSELL AUSTRALIA PTY LTD and may not be reproduced without the prior written consent of MAUNSELL AUSTRALIA PTY LTD. THE DESIGN OF THIS DRAWING IS THE PROPERTY OF MAUNSELL AUSTRALIA PTY LTD AND MAY NOT BE REPRODUCED WITHOUT THE PRIOR WRITTEN CONSENT OF MAUNSELL AUSTRALIA PTY LTD.	Maunsell Maunsell Australia Pty Ltd 2018 Consulting Engineers, Planners, Environmental Services & Project Managers	WOODLAWN ALLIANCE	CLYDE TRANSFER TERMINAL CLYDE SITE MONITORING LOCATIONS	
	SKETCH		104-07001-SK.895	1								



Appendix C - Monitoring Data

Appendix C1 – Meteorological Calibration Reports

Hydrometric Consulting Services Pty Ltd

ABN 16 091 437 071

24 February 2016

Stephen Bernhart
Environmental Monitoring Officer
Veolia Environmental Services

Re – Quarterly service of weather stations

Dear Stephen,

As per our service agreement, on the 16/02/16 and 24/02/16 HCS undertook the service, calibration and maintenance of the weather stations located at the Horsley Park and Clyde sites. Field readings were obtained by a combination of a Kestral 3500, compass, Monitor Solar Radiation field unit and HS TBRG calibration device. Details are as follows

Horsley Park 16/02/16

Sensor	Actual (field)	Logger
Temperature – 10m*	27.0	25.7
2m*	27.0	26.5
Relative Humidity*	48	47
Wind Speed	4 m/s at ground	4.9 at 10 metres
Wind Direction	120	120
Solar Radiation	1100 New	1050
TBRG	10mm	20 tips
Battery/Solar	13.3	

* Note 1: field reading is not inside the radiation shield

Note 2: ignore rainfall tips logged at approximately 1230 DST as these were testing.

The calibration was undertaken in conjunction with the mast replacement. The Solar radiation was replaced on this visit. The bearings in both wind sensors were replaced.

The Horsley Park site was re-visited on the 24/02/16 to check the error counters in the logger. These were found to be a zero which indicates the logger is fully operational. Field readings were again taken.

Horsley Park 24/02/16

Sensor	Actual (field)	Logger
Temperature – 10m*	22.0	21.5
2m*	22.0	21.7
Relative Humidity*	80	80
Wind Speed	1.6 m/s at ground	1.85 at 10 metres
Wind Direction	340	340
Solar Radiation	320	320

TBRG	Not calibrated	
Battery/Solar	13.3	

Additional Items

1. Solar panel and components cleaned.
2. Installation sprayed for insects.

Clyde 24/02/16

Sensor	Actual (field)	Logger
Temperature – 10m*	33.0	31.2
2m*	33.0	32.5
Relative Humidity*	35	36 see note 4
Wind Speed	1.2 at ground (poor exposure at ground)	1.1 at 10 metres fluctuating
Wind Direction	45	41
Solar Radiation	880	750
TBRG	10mm	20 tips
Battery/Solar	13.3/19.5	

* Note 1: field reading is not inside the radiation shield

Note 2: ignore rainfall tips logged at approximately 1200 DST as these were testing.

Note 3: the temperature/relative humidity sensor was cleaned and the RH reading returned to 36%.

Note 4: the solar radiation sensor was again reading low indicating the sensor is dirty. Performance will monitored.

Additional Items

1. Installation sprayed for insects.
2. Vegetation and grass around instruments trimmed.

Both sites are now polled weekly by HCS and data is downloaded and available on the HCS website.

Should you require any further information on this report please do not hesitate to contact me on 0402 134 092.



Glen Murphy

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Hydrometric Consulting Services Pty Ltd

ABN 16 091 437 071

19 May 2016

Sara Maddison
Environmental Engineer
Veolia Australia and New Zealand

Re – Quarterly service of weather stations

Dear Sara,

As per our service agreement, on the 11/05/16 HCS undertook the service, calibration and maintenance of the weather stations located at the Horsley Park and Clyde sites. Field readings were obtained by a combination of a Kestral 3500, compass, Monitor Solar Radiation field unit and HS TBRG calibration device. Details are as follows

Horsley Park 11/05/16

Sensor	Actual (field)	Logger
Temperature – 10m*	14.0	13.9
2m*	14.0	13.5
Relative Humidity*	55	56
Wind Speed	0.9 m/s at ground	1.3 at 10 metres
Wind Direction	0	1
Solar Radiation	360	350
TBRG	10mm	20 tips
Battery/Solar	13.3	

* Note 1: field reading is not inside the radiation shield.

Note 2: ignore rainfall tips logged at approximately 0830 EST as these were testing.

Additional Items

1. Solar panel and components cleaned.
2. Installation sprayed for insects.

Clyde 11/05/16

Sensor	Actual (field)	Logger
Temperature – 10m*	22.0	21.3
2m*	33.0	21.4
Relative Humidity*	22	20
Wind Speed	1.5 at ground (poor exposure at ground)	2.9 at 10 metres
Wind Direction	260	260
Solar Radiation	400	370
TBRG	10mm	20 tips
Battery/Solar	13.7/19.0	

* Note 1: field reading is not inside the radiation shield.

Note 2: ignore rainfall tips logged at approximately 1150 EST as these were testing.

Note 3: the temperature/relative humidity sensor was cleaned.

Additional Items

1. Installation sprayed for insects.
2. Vegetation around instruments trimmed.

Both sites are now polled weekly by HCS and data is downloaded and available on the HCS website.

Communications to the Clyde Site ceased during the week of the site visit. The modem was reset on a number of occasions but communications could not be restored. The site was revisited on 19/05/16 and the Veolia SIM card in the modem was replaced with a HCS owned Telstra SIM card. Communication with the site restarted immediately and data recommenced downloading. It is apparent there is an issue with the Veolia owned SIM card, possibly an issue with the mobile phone modem account. It is recommended that the SIM card issue be addressed by Veolia.

Should you require any further information on this report please do not hesitate to contact me on 0402 134 092.



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Hydrometric Consulting Services Pty Ltd

ABN 16 091 437 071

17 August 2016

Sara Maddison
Environmental Engineer
Veolia Australia and New Zealand

Re – Quarterly service of weather stations

Dear Sara,

As per our service agreement, on the 17/08/16 HCS undertook the service, calibration and maintenance of the weather stations located at the Horsley Park and Clyde sites. Field readings were obtained by a combination of a Kestral 3500, compass, Monitor Solar Radiation field unit and HS TBRG calibration device. Details are as follows

Horsley Park 17/08/16

Sensor	Actual (field)	Logger
Temperature – 10m*	10.9	10.3
2m*	10.9	10.7
Relative Humidity*	80	79
Wind Speed	1.0 m/s at ground	0.95 m/s at 10 metres
Wind Direction	290	290
Solar Radiation	250	250
TBRG	10mm	20 tips
Battery/Solar	13.2	

* Note 1: field reading is not inside the radiation shield.

Note 2: ignore rainfall tips logged at approximately 0830 EST as these were testing.

Additional Items

1. Solar panel and components cleaned. All components were very dirty.
2. Installation sprayed for insects.

Clyde 17/08/16

Sensor	Actual (field)	Logger
Temperature – 10m*	22.0	21.3
2m*	22.0	21.8
Relative Humidity*	37	37
Wind Speed	1.6 at ground (poor exposure at ground)	1.7 at 10 metres
Wind Direction	290	292
Solar Radiation	600	600
TBRG	10mm	20 tips
Battery/Solar	13.2/20.4	

* Note 1: field reading is not inside the radiation shield.

Note 2: ignore rainfall tips logged at approximately 1115 EST as these were testing.

Additional Items

1. All components cleaned.
2. Installation sprayed for insects.
3. Vegetation around instruments trimmed.

Both sites are now polled weekly by HCS and data is downloaded and available on the HCS website.

The Veolia SIM card was re-installed in the Clyde modem.

Should you require any further information on this report please do not hesitate to contact me on 0402 134 092.



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Hydrometric Consulting Services Pty Ltd

ABN 16 091 437 071

14 November 2016

Sara Maddison
Environmental Engineer
Veolia Australia and New Zealand

Re – Quarterly service of weather stations

Dear Sara,

As per our service agreement, on the 14/11/16 HCS undertook the service, calibration and maintenance of the weather stations located at the Horsley Park and Clyde sites. Field readings were obtained by a combination of a Kestral 3500, compass, Monitor Solar Radiation field unit and HS TBRG calibration device. Details are as follows

Horsley Park 14/11/16

Sensor	Actual (field)	Logger
Temperature – 10m*	20.0	19.7
2m*	20.0	20.02
Relative Humidity*	45	44
Wind Speed	7.0 m/s at ground	7.80 m/s at 10 metres
Wind Direction	280	280
Solar Radiation	660	660
TBRG	10mm	20 tips
Battery/Solar	13.8	

* Note 1: field reading is not inside the radiation shield.

Note 2: ignore rainfall tips logged at approximately 0730 EST as these were testing.

Additional Items

1. Solar panel and components cleaned. All components were very dirty.
2. Installation sprayed for insects.
3. Guy wires checked.

Clyde 14/11/16

Sensor	Actual (field)	Logger
Temperature – 10m*	24.0	23.05
2m*	24.0	23.2
Relative Humidity*	30	29.3
Wind Speed	2.5 at ground (poor exposure at ground)	2.75 at 10 metres
Wind Direction	220	220
Solar Radiation	410	400
TBRG	10mm	20 tips
Battery/Solar	13.5	

* Note 1: field reading is not inside the radiation shield.

Note 2: ignore rainfall tips logged at approximately 1030 EST as these were testing.

Additional Items

1. All components cleaned.
2. Installation sprayed for insects.
3. Vegetation around instruments trimmed.

Both sites are now polled weekly by HCS and data is downloaded and available on the HCS website.

The Clyde site could not be polled via modem when testing at the site. The Veolia SIM card was replaced with a HCS SIM card and the site was polled satisfactorily.

There is therefore another issue with the Veolia SIM card that needs to be addressed.

Should you require any further information on this report please do not hesitate to contact me on 0402 134 092.



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Appendix C - Monitoring Data

Appendix C2 – Odour Audit Reports



VEOLIA (AUSTRALIA) PTY LTD

Clyde Waste Transfer Terminal

Odour Audit XXVII

Final Report

June 2016

THE ODOUR UNIT PTY LTD

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Project Number: N1473L

Report Revision		
Revision Number	Date	Description
Draft report	07.06.2016	Internal review
Final report	08.06.2016	Final report issued to client
Report Preparation		
Report Prepared By: M. Assal		Approved By: T.Schulz
Report Title: Veolia (Australia) Pty Ltd Clyde Waste Transfer Terminal – Odour Audit XXVII		

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APPENDICES

APPENDIX A: Odour Extraction System Service Reports (26 November 2015 – 18 May 2016)

APPENDIX B: Weather Data Calibration Reports (26 November 2015 – 19 May 2016)

APPENDIX C: Field Ambient Odour Assessment Plot and Field Sheets (18 May 2016)

1 INTRODUCTION

The Odour Unit Pty Ltd (TOU) was commissioned by Veolia (Australia) Pty Ltd (Veolia), formerly Veolia Environmental Services (Australia) Pty Ltd, to undertake the twenty-seventh (XXVII) Odour Audit at the Clyde Transfer Terminal (the Site) on 18 May 2016. The visit for this Odour Audit was undertaken by a TOU Senior Engineer & Consultant, and is the seventeenth (17th) to be carried out since the commissioning of the new forced air extraction system within the transfer building. Odour Audit XXVII covers the 6-month period from 26 November 2015 to 18 May 2016.

The Odour Audit requirements of the Conditions of Consent – 48(f) are outlined below:

48. The Odour Management Plan must address, but is not necessarily limited to, the following issues:

(f) An odour audit program which provides for a comprehensive odour audit of the premises and nearby commercial and residential areas, by an independent, appropriately qualified and experienced person, to be conducted 3-monthly for the initial 24 months of receiving un-containerised waste at the terminal, 3-monthly for the 12 months following commissioning the odour control system subject to MOD-133-11-2006, and 6-monthly thereafter, unless otherwise approved in writing by the Director-General.

As with previous Audits, Odour Audit XXVII focused on issues relating to general housekeeping, fugitive odour emissions from the transfer building, ground level odour impacts, meteorological monitoring, complaints handling and actions on past Odour Audit recommendations. The audit approach included:

- A general inspection and smoke testing of the transfer building;
- Inspection of the container packing area and site access roads;
- Inspection of the complaint register;
- Review of the site meteorological data log and equipment maintenance/calibration; and
- An off-site downwind Field Ambient Odour Assessment (FAOA) survey.

At the time of the Odour Audit, it was clear skies with calm wind speeds (< 0.5 m/s) and an intermittent wind gust from east-northeast direction. The ambient temperature during the Odour Audit visit ranged between 18°C and 19°C. It should be noted that a fire incident at an industrial site in Auburn had occurred on this day and may have affected general ambient air quality in the region.

2 ODOUR AUDIT FINDINGS

2.1 ASSESSMENT OF GENERAL HOUSEKEEPING

2.1.1 Transfer Terminal Building

During the Odour Audit visit on 18 May 2016, there was approximately 350-400 tonnes of waste on the floor, according to the Site personnel. This tonnage is considered to be within the normal operational range of the Transfer Terminal Building (TTB). The TTB floor area not covered by waste material was observed to be reasonably clean, with little evidence of leachate or aged material. General housekeeping procedures of the TTB were good, as observed during several truck-unloading sequences. It was also observed that the Site's front-end loaders cleared the floor area of waste on a regular basis, minimising the exposed area of waste.

As with previous audits, and consistent with TOU's experience at other waste transfer stations, there was a weak to distinct level of odour observed within the TTB. A photo of the waste on the floor as found during the Odour Audit visit is shown in **Photo 2.1**.



Photo 2.1 – Waste on-floor as found on 18 May 2016

2.1.2 Container Packing Area and Site Roadways

The container packing area and site roadways were clean and well managed with no evidence of waste or exposed leachate. Similarly to previous Odour Audits, the container compacting/train packing area had a weak to distinct odour that was intermittently detectable but was confined to this area only (see **Appendix C** for Field

Ambient Odour Assessment Survey results). Both compactors were operating at the time of the Odour Audit visit. The general house-keeping around this area was observed to be of high quality, with no evidence to suggest otherwise. As with previous Odour Audits, the containers are cleaned off-site at Veolia's Woodlawn Bioreactor Facility before being returned to the Site. The weight of each container is monitored to determine if there is any waste that has not been removed completely from each container, which in turn reduces the likelihood of the containers contributing to the Site's odour levels.

As per the Odour Management Procedures at the Site, following the compaction of waste, all filled containers are completely sealed and remain so whilst at the Site. All containers used are required to be in good condition and unused/returned containers adequately clean. The maintenance of the containers continue to be undertaken according to the procedures documented in the *NSW Clyde Transfer Terminal Container Maintenance*. This document addresses all key items including the design of the containers, maintenance and management of the activated carbon filter. Veolia provided a copy of this document as part of the November 2015 Odour Audit.

2.1.3 Odour Extraction System Maintenance

Service documentation was provided and inspected for the maintenance of the odour extraction system (refer **Appendix A**). Service logs were provided covering the period between 26 November 2015 and 18 May 2016.

Each service log provided showed that the required maintenance was taking place and the odour extraction system overall was operating well. The service logs during this period noted that all required maintenance works such as checking the fan belts and unit operations, greasing bearings, and other routine preventative maintenance were being adequately undertaken.

The service logs indicated that wind speed was measured during each service visit and the required air velocity (i.e. 19.5 m/s) was being achieved.

Overall, no significant issues with the fan extraction system was found in the Odour Audit.

2.1.4 Odour Management Procedures

The Odour Management Procedures (formerly known as the Odour Minimising Procedures) continue to be regularly reviewed at Tool Box meetings and new issues/recommendations are raised with all staff members at these meetings.

The Odour Audit was advised that there has been no changes to the odour management procedures since the previous audit.

2.1.5 Transfer Terminal Building

The Odour Audit inspected the fixed metal plates retrofitted along the TTB breezeways in December 2013. All metal plates were found to be intact and in good condition. All doors and roller shutters of the TTB were found to be shut at the time of the Odour Audit, reducing the likelihood of odour impacts detected offsite. The louvers on the end walls of the TTB were observed to be permanently shut.

2.1.6 Truck Entrance Plastic Strips

The truck entrance plastic strips of the TTB, used to reduce odour escaping through the opening, were now found to be fully replaced with new and much more robust strips (see **Photo 2.2**). The Odour Audit finds this to be a good outcome.

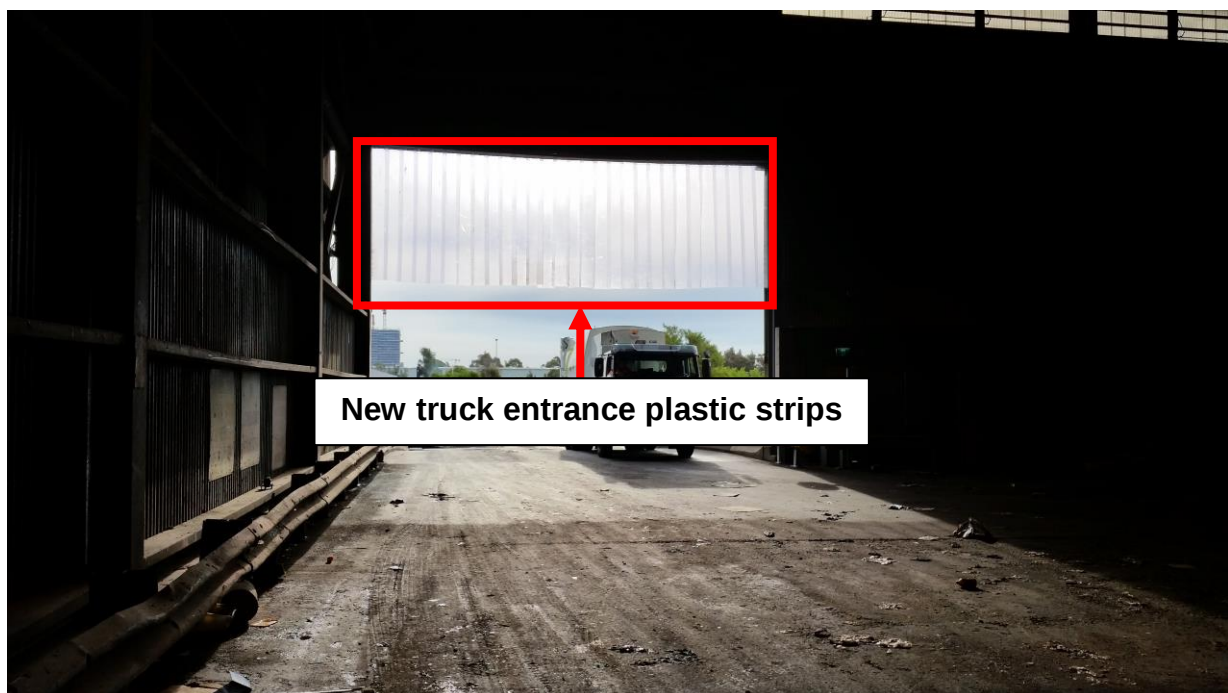


Photo 2.2 – New truck entrance plastic strips as found on 18 May 2016

2.1.7 Smoke Testing

As per previous audits, smoke testing was carried out within the TTB to assist in determining the effectiveness of the forced air extraction system, as well as the extent to which the TTB has been sealed from leaks. Smoke was released from within the building from three (3) different points within the TTB. **Figure 2.1** shows the three points where the smoke was released. These are identical locations to that of previous Odour Audits. **Photo 2.3** shows smoke testing at one of the test locations on 18 May 2016.

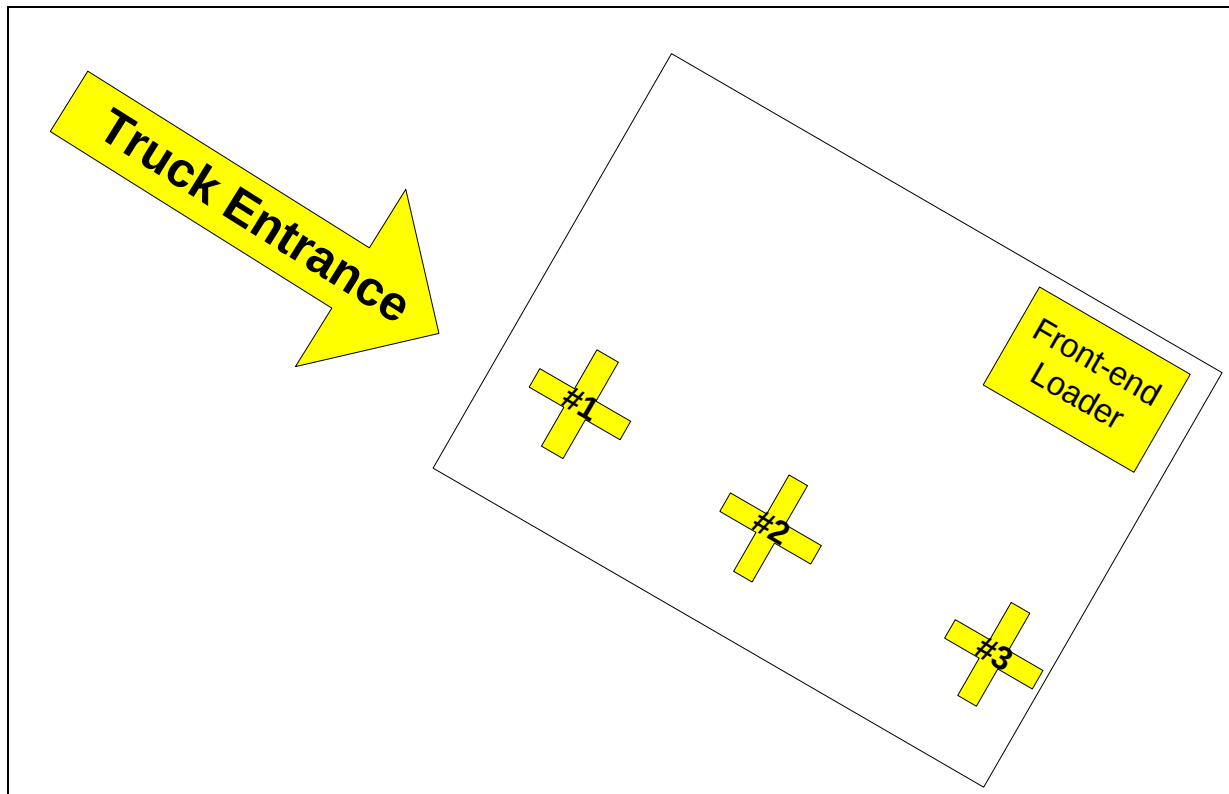


Figure 2.1 - Smoke testing release points within the TTB on 18 May 2016



Photo 2.3 – Smoke testing within the TTB on 18 May 2016

2.1.7.1 Smoke Testing Results

Smoke Testing Point #1

Smoke released at this point initially rose gradually moving towards the truck entrance before rising to the roof and moving slowly towards the extraction system. Visible smoke extraction at the overhead capture points was evident during the smoke testing at this point.

Smoke Testing Point #2

Smoke released at this point revealed a similar result to smoke testing point #1.

Smoke Testing Point #3

Smoke released at this point revealed a similar result to smoke testing point #1.

2.1.8 **Stormwater Retention Pond**

The auditor observed that there was no effluent in this pond at the time this Odour Audit was carried out. Moreover, there was no odour detectable during the Odour Audit visit that could be linked directly back to the stormwater retention pond. **Photo 2.4** shows the state of the pond on 18 May 2016.



Photo 2.4 – Stormwater retention pond as found on 18 May 2016

2.2 ODOUR COMPLAINTS HANDLING AND METEOROLOGICAL DATA

2.2.1 Odour Complaints Handling

As advised by the Site Manager, there have been no complaints recorded in the site complaints register since March 2012.

2.2.2 Meteorological Data

The meteorological data provided to the Odour Audit for the period between 26 November 2015 and 18 May 2016 was inspected and found to be in good order. As found in previous Odour Audits, the observations were recorded in 15-minute intervals, and included all parameters necessary to develop a meteorological dataset for odour dispersion modelling.

As indicated in the regularly service documents by Hydrometric Consulting Services (HCS) supplied by Veolia to the Odour Audit, the weather station continues to remain located in an accessible area with the solar panel and components regularly cleaned, and installation sprayed regularly for insects and trimming of nearby vegetation as required to ensure no overgrowth immediately around the weather station pole.

The weather data calibration and service reports by HCS are appended as **Appendix B**.

2.3 FIELD AMBIENT ODOUR ASSESSMENT METHODOLOGY

At present, no Australian Standard exists for field based ambient odour assessment surveys. Consequently, TOU utilises a method for assessing the ground level impacts of odour emissions using a modified version of the German Standard VDI 3940 (1993) – *‘Determination of Odorants in Ambient Air by Field Inspections’*.

Field based ambient odour surveys are considered a valuable odour impact assessment tool as previous experience with ambient odour sampling and subsequent olfactometry testing suggests that accurate and useful ambient odour concentration data is difficult to obtain. Therefore, TOU has adopted a more practical approach based on the field measurement of odour intensity. With this method, calibrated and experienced odour specialists traverse the downwind surrounds of odour sources in a strategically mapped pattern, assessing the presence, character and intensity of any odours encountered and recording these observations along with wind speed and direction.

An ambient odour assessment was performed on 18 May 2016 between 1625 hrs and 1525 hrs. The FAOA survey was undertaken at strategic locations, both on-site and off-site. The ambient odour assessment focus was off-site, as required by the Conditions of Consent on “.....*nearby commercial and residential areas*.....” (Section 48 (f)). The TOU assessor firstly determined the wind direction using a Kestrel 4500

Pocket Weather Tracker Anemometer and then assessed downwind locations of the TTB.

The assessors spent a few minutes at each assessment location in order to gauge the effects of any odour impact. If an odour was detected at a location, the assessors attempted to characterise it. The general aim was to determine the extent of the impact of odours off-site and rank their intensity. The ranking scale for the German Standard VDI 3940 '*Determination of Odorants in Ambient Air by Field Inspections*' was used for the intensity assessments. The standard's ranking system is based on the following seven-point intensity scale, as shown in **Table 2.1** below.

Table 2.1 - VDI 3882 Odour Intensity Categories

Odour Strength	Intensity Rank (code)	TOU Interpretation (meaning)
Not detectable	0	No odour detected
Very weak	1	Odour detected but not strong enough to be characterised
Weak	2	Odour is weak but just able to be characterised
Distinct	3	Odour is clearly distinct and easily characterised
Strong	4	Strong odour detectable
Very Strong	5	If offensive, observer may consider moving from the area
Extremely Strong	6	Odour is sufficiently over-powering that assessor moves from area

2.3.1 Field Ambient Odour Assessment - Results

The results from the FAOA survey conducted during the Odour Audit found that no odours were detected off-site that could be linked back to the Transfer Terminal Station and its on-site activities. Other odours were intermittently detectable during the survey from sources not related to the Site. The field log sheets and visual survey plot have been attached as **Appendix C**.

3 RECOMMENDATIONS/FOLLOW-UP ACTIONS

3.1 PREVIOUS AUDIT ACTIONS

The following are the previous audit actions and subsequent responses:

- **Odour Audit Action #1:** The Odour Audit to re-check that: roller shutters and doors are being kept closed at all times; and the proposed new truck entrance strip system.

Response #1: This matter is now resolved and requires no further action. The plastic truck strips have now been fully replaced (see **Section 2.1.6** for details).

- **Odour Audit Action #2:** The container issue identified during the Odour Audit visit is to be rectified.

Response #2: Veolia has indicated that this matter is now resolved.

3.2 TRANSFER TERMINAL BUILDING

All metal plates were found to be intact and in good condition. All doors and roller shutters of the TTB were found to be shut at the time of the Odour Audit, reducing the likelihood of odour impacts detected offsite. The louvers on the end walls of the TTB were observed to be permanently shut. Overall, the TTB was found to be well managed.

Based on the findings in this Odour Audit, the following action/s should be undertaken:

- No further action is required at this stage.

3.3 COMPACTOR AREA

The general house-keeping around this area was observed to be of high quality, with no evidence to suggest otherwise. As with previous Odour Audits, the container compacting/train packing area had a weak to distinct odour that was intermittently detectable but was found to be confined to this area only.

Based on the findings in this Odour Audit, the following action/s should be undertaken:

- No further action is required at this stage.

3.4 ODOUR EXTRACTION SYSTEM

The service logs indicate that all required maintenance works on the odour extraction system since the previous Odour Audit are being adequately undertaken and the system is operating as required.

Based on the findings in this Odour Audit, the following action/s should be undertaken:

- No further action is required at this stage.

3.5 WEATHER STATION

The calibration and service reports from HCS indicate that all maintenance to the weather station and required calibrations were being carried out as required.

Based on the findings in this Odour Audit, the following action/s should be undertaken:

- No further action is required at this stage.

3.6 FIELD AMBIENT ODOUR ASSESSMENT SURVEY

The results from the FAOA survey conducted during the Odour Audit found that no odours were detectable off-site that could be linked back to the Transfer Terminal Station and its on-site activities.

3.7 CONCLUDING REMARK

Overall, this Odour Audit found that the operation and maintenance of the odour management system at the Site was satisfactory. There was no evidence to suggest that significant fugitive odour emission release from the Site is occurring.

The next Odour Audit is due in November 2016.



VEOLIA (AUSTRALIA) PTY LTD

Clyde Waste Transfer Terminal

Odour Audit XXVII

Appendices

June 2016



Appendix A –

Odour Extraction System Service Report

(26 November 2015 – 18 May 2016)

Triple M - NSW - Service Docket

Record: 66307	
Time Start	Mon Dec 07 2015 14:07:36 GMT+1100 (AEDT)
Client Details	CLYDE WASTE
Address	322 Parramatta Rd Clyde NSW 2142
Site Contact Name	BIKRAM SINGH
Site Contact Telephone Number	02 8868 7401
Customer Ref Number	4502301049
Type of Service	Preventative Maintenance - PM
Job / Service Call Number	666625
Fault Description	CLYDE WASTE - PM November L1 - MONTHLY
Job Safety Analysis Completed	YES
Description of Work Done	Carried out routine maintenance as per schedule, checked belts, unit operations and wind speed. Brushed off excess dust from fan grilles. Wind speed measured ok. No issues found.
Parts, Materials?	No
Refrigerant Used?	No
Job Status	Completed
Technician's Signature	
Normal Hours	0
Time and a Half	0
Double Time	0
User ID	TMS-MLY
Technician Name	Mick Lye
Iforms Record ID	66307
Record Location	Latitude:-33.837319, Longitude:151.021674, Altitude:-5.501587, Speed:0.000000, Horizontal Accuracy:30.000000, Vertical Accuracy:24.000000, Time:2:13:40 pm AEDT
Total Hrs	0
Time Completed	2015-12-07 14:07:36

Mobile Data Capture Report

Job Safety Analysis	
Job/Service Call Number	666625
Work to be done.	CLYDE WASTE - PM November L1 - MONTHLY
Protective Equipment to be Used During Works	Gloves, Safety Glasses, High Visibility Garments, Face/Dust mask, Safety Boots/Shoes
Is there clear access to the work area equipment & free from trips, slips & fall hazards?	Yes
Are weather conditions appropriate for the commencement of works?	Yes
Is there a potential risk of disturbing asbestos during the works you are undertaking today?	No
Does your task involve working on the roof?	Yes
All skylights and laser light panels identified; barriers provided as required.	1
Barriers provided as required.	1
Ensure weather conditions are adequate for the tasks to be completed safely.	1
Does the roof area have walkways, pathways, fixed ladder and anchor points to access required equipment?	Yes
Will your task involve Manual Handling?	No
Will your work impact general public/vehicle control?	No
Does your task involve Electrical works?	No
Does your work involve Mechanical works?	Yes
All isolations complete: electrical, refrigeration, air, water, gas.	1
No work until all moving parts have stopped.	1
Does your task involve working from heights (not including roof work) & are there adequate fall prevention controls in place?	No
Working from a step ladder?	No
Electrical tools & equipment being used?	No
Will you be using chemicals during your task?	No
Will you be working in area's that produce excessive noise?	No
Using HazMat?	No
Will you be welding or oxy cutting.	No
Will you be working in or near Cooling towers?	No
Handling refrigerant?	No
Are you working by yourself?	Yes
Sign in & out of your worksite.	1
Keep in regular contact with your supervisor/coordinator (arriving/leaving site).	1
Is it safe for you to proceed with your job.	Yes
Technician's Signature	

Mobile Data Capture Report

Triple M - NSW - Service Docket

Record: 75148	
Time Start	Thu Mar 03 2016 14:11:35 GMT+1100 (AEDT)
Client Details	CLYDE WASTE
Address	322 Parramatta Rd Clyde NSW 2142
Site Contact Name	BIKRAM SINGH
Site Contact Telephone Number	02 8868 7401
Customer Ref Number	4502301049
Type of Service	Preventative Maintenance - PM
Job / Service Call Number	679905
Fault Description	CLYDE WASTE - PM L1 - MONTHLY
Asset List	EQUIP-M_Whole of Site - Mech_MONTHLY_Qty:1
Job Safety Analysis Completed	YES
Description of Work Done	Attended site to investigate both fans not running, established permits and ppe. Found both breakers operational, found both vsd tripped out, reset both vsd and checked operations. Fan now running as per normal, was advised there have been power issues recently that have caused same issue in past visits. Carried out routine maintenance as per schedule. Checked fan operation and exhaust wind speed. Checked belts and brushed some dust from fans and cages. No issues found.
Parts, Materials?	No
Refrigerant Used?	No
Job Status	Completed
Technician's Signature	
Forwarding Email	seth.johnson@veolia.com
Normal Hours	0
Time and a Half	0
Double Time	0
User ID	TMS-MLY
Technician Name	Mick Lye
Iforms Record ID	75148
Record Location	Latitude:-33.775613, Longitude:150.916795, Altitude:64.996071, Speed:-1.000000, Horizontal Accuracy:65.000000, Vertical Accuracy:10.000000, Time:2:17:59 pm AEDT
Total Hrs	0
Time Completed	2016-03-03 14:11:35

Mobile Data Capture Report

Job Safety Analysis	
Job/Service Call Number	679905
Work to be done.	CLYDE WASTE - PM January L1 - MONTHLY
Protective Equipment to be Used During Works	Gloves, Safety Glasses, High Visibility Garments, Face/Dust mask, Safety Boots/Shoes
Is there clear access to the work area equipment & free from trips, slips & fall hazards?	Yes
Are weather conditions appropriate for the commencement of works?	Yes
Is there a potential risk of disturbing asbestos during the works you are undertaking today?	No
Does your task involve working on the roof?	Yes
All skylights and laser light panels identified; barriers provided as required.	1
Barriers provided as required.	1
Ensure weather conditions are adequate for the tasks to be completed safely.	1
Does the roof area have walkways, pathways, fixed ladder and anchor points to access required equipment?	Yes
Will your task involve Manual Handling?	No
Will your work impact general public/vehicle control?	No
Does your task involve Electrical works?	Yes
Isolate ALL energy sources (Primary & Secondary).	0
Test before touching complete.	1
Tools & equipment are fit for purpose.	1
Does your work involve Mechanical works?	Yes
All isolations complete: electrical, refrigeration, air, water, gas.	1
No work until all moving parts have stopped.	1
Does your task involve working from heights (not including roof work) & are there adequate fall prevention controls in place?	No
Working from a step ladder?	No
Electrical tools & equipment being used?	No
Will you be using chemicals during your task?	No
Will you be working in area's that produce excessive noise?	No
Using HazMat?	No
Will you be welding or oxy cutting.	No
Will you be working in or near Cooling towers?	No
Handling refrigerant?	No
Are you working by yourself?	Yes
Sign in & out of your worksite.	1
Keep in regular contact with your supervisor/coordinator (arriving/leaving site).	1
Is it safe for you to proceed with your job.	Yes
Technician's Signature	

Triple M - NSW - Service Docket

Record: 75154	
Time Start	Wed Apr 06 2016 14:45:34 GMT+1000 (AEST)
Client Details	CLYDE WASTE
Address	322 Parramatta Rd Clyde NSW 2142
Site Contact Name	Ash Turner
Site Contact Telephone Number	02 8868 7401
Customer Ref Number	4502301049
Type of Service	Preventative Maintenance - PM
Job / Service Call Number	686314
Fault Description	CLYDE WASTE - MONTHLY
Asset List	EQUIP-M Whole of Site - Mech MONTHLY _Qty:1
Job Safety Analysis Completed	YES
Description of Work Done	Carried out routine maintenance as per schedule. Found some slight cracking in some belts, will monitor for replacement. Measured wind speed at correct level. Brushed off dust build up from fan grilles and other surfaces.
Parts, Materials?	No
Refrigerant Used?	No
Job Status	Completed
Technician's Signature	
Forwarding Email	ash.turner@veolia.com
Normal Hours	0
Time and a Half	0
Double Time	0
User ID	TMS-MLY
Technician Name	Mick Lye
Iforms Record ID	75154
Record Location	Latitude:-33.714317, Longitude:150.914151, Altitude:70.984558, Speed:0.000000, Horizontal Accuracy:5.000000, Vertical Accuracy:3.000000, Time:12:58:34 am AEST
Total Hrs	0
Time Completed	2016-04-06 14:45:34

Mobile Data Capture Report

Job Safety Analysis	
Job/Service Call Number	686314
Work to be done.	CLYDE WASTE - PM February L1 - MONTHLY
Protective Equipment to be Used During Works	Gloves, Long Pants, Safety Glasses, Long Sleeve Shirt, High Visibility Garments, Face/Dust mask, Safety Boots/Shoes
Is there clear access to the work area equipment & free from trips, slips & fall hazards?	Yes
Are weather conditions appropriate for the commencement of works?	Yes
Is there a potential risk of disturbing asbestos during the works you are undertaking today?	No
Does your task involve working on the roof?	Yes
All skylights and laser light panels identified; barriers provided as required.	1
Barriers provided as required.	1
Ensure weather conditions are adequate for the tasks to be completed safely.	1
Does the roof area have walkways, pathways, fixed ladder and anchor points to access required equipment?	Yes
Will your task involve Manual Handling?	No
Will your work impact general public/vehicle control?	No
Does your task involve Electrical works?	Yes
Isolate ALL energy sources (Primary & Secondary).	1
Locked out & Tagged.	1
Test before touching complete.	1
Tools & equipment are fit for purpose.	1
Does your work involve Mechanical works?	Yes
All isolations complete: electrical, refrigeration, air, water, gas.	1
No work until all moving parts have stopped.	1
Does your task involve working from heights (not including roof work) & are there adequate fall prevention controls in place?	No
Working from a step ladder?	No
Electrical tools & equipment being used?	No
Will you be using chemicals during your task?	No
Will you be working in area's that produce excessive noise?	No
Using HazMat?	No
Will you be welding or oxy cutting.	No
Will you be working in or near Cooling towers?	No
Handling refrigerant?	No
Are you working by yourself?	Yes
Sign in & out of your worksite.	1
Keep in regular contact with your supervisor/coordinator (arriving/leaving site).	1
Is it safe for you to proceed with your job.	Yes
Technician's Signature	

Triple M - NSW - Service Docket

Record: 82178	
Time Start	Fri Apr 29 2016 14:24:13 GMT+1000 (AEST)
Client Details	CLYDE WASTE
Address	322 Parramatta Rd Clyde NSW 2142
Site Contact Name	BIKRAM SINGH
Site Contact Telephone Number	02 8868 7401
Customer Ref Number	4502301049
Type of Service	Preventative Maintenance - PM
Job / Service Call Number	692022
Fault Description	CLYDE WASTE - PM MONTHLY
Asset List	EQUIP-M_Whole of Site - Mech_ MONTHLY _Qty:1
Job Safety Analysis Completed	YES
Description of Work Done	Carried out routine maintenance as per schedule on fans. Checked fan operations, checked belt condition and found some more minor cracks, will submit quote for replacement. Checked wind speed as per requirements and no issues found.
Parts, Materials?	No
Refrigerant Used?	No
Job Status	Completed
Technician's Signature	
Forwarding Email	ash.turner@veolia.com
Normal Hours	0
Time and a Half	0
Double Time	0
User ID	TMS-MLY
Technician Name	Mick Lye
Iforms Record ID	82178
Record Location	Latitude:-33.837233, Longitude:151.021640, Altitude:-0.100891, Speed:0.000000, Horizontal Accuracy:10.000000, Vertical Accuracy:12.000000, Time:3:14:50 pm AEST
Total Hrs	0
Time Completed	2016-04-29 14:24:13

Mobile Data Capture Report

Job Safety Analysis	
Job/Service Call Number	692022
Work to be done.	CLYDE WASTE - PM March L1 - MONTHLY
Protective Equipment to be Used During Works	Gloves, Safety Glasses, High Visibility Garments, Face/Dust mask, Safety Boots/Shoes
Is there clear access to the work area equipment & free from trips, slips & fall hazards?	Yes
Are weather conditions appropriate for the commencement of works?	Yes
Is there a potential risk of disturbing asbestos during the works you are undertaking today?	No
Does your task involve working on the roof?	No
Will your task involve Manual Handling?	No
Will your work impact general public/vehicle control?	No
Does your task involve Electrical works?	Yes
Isolate ALL energy sources (Primary & Secondary).	1
Locked out & Tagged.	1
Tools & equipment are fit for purpose.	1
Does your work involve Mechanical works?	Yes
All isolations complete: electrical, refrigeration, air, water, gas.	1
No work until all moving parts have stopped.	1
Does your task involve working from heights (not including roof work) & are there adequate fall prevention controls in place?	No
Working from a step ladder?	No
Electrical tools & equipment being used?	No
Will you be using chemicals during your task?	No
Will you be working in area's that produce excessive noise?	No
Using HazMat?	No
Will you be welding or oxy cutting.	No
Will you be working in or near Cooling towers?	No
Handling refrigerant?	No
Are you working by yourself?	Yes
Sign in & out of your worksite.	1
Keep in regular contact with your supervisor/coordinator (arriving/leaving site).	1
Is it safe for you to proceed with your job.	Yes
Technician's Signature	

Triple M - NSW - Service Docket

Record: 82187	
Time Start	Wed May 18 2016 11:15:10 GMT+1000 (AEST)
Client Details	CLYDE WASTE
Address	322 Parramatta Rd Clyde NSW 2142
Site Contact Name	BIKRAM SINGH
Site Contact Telephone Number	02 8868 7401
Customer Ref Number	4502301049
Type of Service	Preventative Maintenance - PM
Job / Service Call Number	823685
Fault Description	CLYDE WASTE - MONTHLY
Asset List	EQUIP-M_Whole of Site - Mech_MONTHLY_Qty:1
Job Safety Analysis Completed	YES
Description of Work Done	Carried out routine maintenance as per schedule. Checked belts and fan operations, one set of belts have been replaced and second set will be replaced soon. Checked wind speed and found to be as per requirement.
Parts, Materials?	No
Refrigerant Used?	No
Job Status	Completed
Technician's Signature	
Normal Hours	0
Time and a Half	0
Double Time	0
User ID	TMS-MLY
Technician Name	Mick Lye
Iforms Record ID	82187
Record Location	Latitude:-33.714410, Longitude:150.914110, Altitude:68.895508, Speed:0.000000, Horizontal Accuracy:10.000000, Vertical Accuracy:8.000000, Time:12:10:13 am AEST
Total Hrs	0
Time Completed	2016-05-18 11:15:10

Mobile Data Capture Report

Job Safety Analysis	
Job/Service Call Number	823685
Work to be done.	CLYDE WASTE - MONTHLY
Protective Equipment to be Used During Works	Gloves, Safety Glasses, High Visibility Garments, Face/Dust mask, Safety Boots/Shoes
Is there clear access to the work area equipment & free from trips, slips & fall hazards?	Yes
Are weather conditions appropriate for the commencement of works?	Yes
Is there a potential risk of disturbing asbestos during the works you are undertaking today?	No
Does your task involve working on the roof?	No
Will your task involve Manual Handling?	No
Will your work impact general public/vehicle control?	No
Does your task involve Electrical works?	Yes
Isolate ALL energy sources (Primary & Secondary).	1
Locked out & Tagged.	1
Test before touching complete.	1
Tools & equipment are fit for purpose.	1
Does your work involve Mechanical works?	Yes
All isolations complete: electrical, refrigeration, air, water, gas.	1
No work until all moving parts have stopped.	1
Does your task involve working from heights (not including roof work) & are there adequate fall prevention controls in place?	No
Working from a step ladder?	No
Electrical tools & equipment being used?	No
Will you be using chemicals during your task?	No
Will you be working in area's that produce excessive noise?	No
Using HazMat?	No
Will you be welding or oxy cutting.	No
Will you be working in or near Cooling towers?	No
Handling refrigerant?	No
Are you working by yourself?	No
Is it safe for you to proceed with your job.	Yes
Technician's Signature	



Appendix B –

Weather Data Calibration Reports

(26 November 2015 – 19 May 2016)

Hydrometric Consulting Services Pty Ltd

ABN 16 091 437 071

24 February 2016

Stephen Bernhart
Environmental Monitoring Officer
Veolia Environmental Services

Re – Quarterly service of weather stations

Dear Stephen,

As per our service agreement, on the 16/02/16 and 24/02/16 HCS undertook the service, calibration and maintenance of the weather stations located at the Horsley Park and Clyde sites. Field readings were obtained by a combination of a Kestral 3500, compass, Monitor Solar Radiation field unit and HS TBRG calibration device. Details are as follows

Horsley Park 16/02/16

Sensor	Actual (field)	Logger
Temperature – 10m*	27.0	25.7
2m*	27.0	26.5
Relative Humidity*	48	47
Wind Speed	4 m/s at ground	4.9 at 10 metres
Wind Direction	120	120
Solar Radiation	1100 New	1050
TBRG	10mm	20 tips
Battery/Solar	13.3	

* Note 1: field reading is not inside the radiation shield

Note 2: ignore rainfall tips logged at approximately 1230 DST as these were testing.

The calibration was undertaken in conjunction with the mast replacement. The Solar radiation was replaced on this visit. The bearings in both wind sensors were replaced.

The Horsley Park site was re-visited on the 24/02/16 to check the error counters in the logger. These were found to be a zero which indicates the logger is fully operational. Field readings were again taken.

Horsley Park 24/02/16

Sensor	Actual (field)	Logger
Temperature – 10m*	22.0	21.5
2m*	22.0	21.7
Relative Humidity*	80	80
Wind Speed	1.6 m/s at ground	1.85 at 10 metres
Wind Direction	340	340
Solar Radiation	320	320

TBRG	Not calibrated	
Battery/Solar	13.3	

Additional Items

1. Solar panel and components cleaned.
2. Installation sprayed for insects.

Clyde 24/02/16

Sensor	Actual (field)	Logger
Temperature – 10m*	33.0	31.2
2m*	33.0	32.5
Relative Humidity*	35	36 see note 4
Wind Speed	1.2 at ground (poor exposure at ground)	1.1 at 10 metres fluctuating
Wind Direction	45	41
Solar Radiation	880	750
TBRG	10mm	20 tips
Battery/Solar	13.3/19.5	

* Note 1: field reading is not inside the radiation shield

Note 2: ignore rainfall tips logged at approximately 1200 DST as these were testing.

Note 3: the temperature/relative humidity sensor was cleaned and the RH reading returned to 36%.

Note 4: the solar radiation sensor was again reading low indicating the sensor is dirty. Performance will monitored.

Additional Items

1. Installation sprayed for insects.
2. Vegetation and grass around instruments trimmed.

Both sites are now polled weekly by HCS and data is downloaded and available on the HCS website.

Should you require any further information on this report please do not hesitate to contact me on 0402 134 092.



Glen Murphy

Hydrometric Consulting Services Pty Ltd

PO Box 3332

Putney NSW 2112

Mob 0402 134 092

Email glenmurf@ozemail.com.au

www.hydrometric.com.au

Hydrometric Consulting Services Pty Ltd

ABN 16 091 437 071

19 May 2016

Sara Maddison
Environmental Engineer
Veolia Australia and New Zealand

Re – Quarterly service of weather stations

Dear Sara,

As per our service agreement, on the 11/05/16 HCS undertook the service, calibration and maintenance of the weather stations located at the Horsley Park and Clyde sites. Field readings were obtained by a combination of a Kestral 3500, compass, Monitor Solar Radiation field unit and HS TBRG calibration device. Details are as follows

Horsley Park 11/05/16

Sensor	Actual (field)	Logger
Temperature – 10m*	14.0	13.9
2m*	14.0	13.5
Relative Humidity*	55	56
Wind Speed	0.9 m/s at ground	1.3 at 10 metres
Wind Direction	0	1
Solar Radiation	360	350
TBRG	10mm	20 tips
Battery/Solar	13.3	

* Note 1: field reading is not inside the radiation shield.

Note 2: ignore rainfall tips logged at approximately 0830 EST as these were testing.

Additional Items

1. Solar panel and components cleaned.
2. Installation sprayed for insects.

Clyde 11/05/16

Sensor	Actual (field)	Logger
Temperature – 10m*	22.0	21.3
2m*	33.0	21.4
Relative Humidity*	22	20
Wind Speed	1.5 at ground (poor exposure at ground)	2.9 at 10 metres
Wind Direction	260	260
Solar Radiation	400	370
TBRG	10mm	20 tips
Battery/Solar	13.7/19.0	

* Note 1: field reading is not inside the radiation shield.

Note 2: ignore rainfall tips logged at approximately 1150 EST as these were testing.

Note 3: the temperature/relative humidity sensor was cleaned.

Additional Items

1. Installation sprayed for insects.
2. Vegetation around instruments trimmed.

Both sites are now polled weekly by HCS and data is downloaded and available on the HCS website.

Communications to the Clyde Site ceased during the week of the site visit. The modem was reset on a number of occasions but communications could not be restored. The site was revisited on 19/05/16 and the Veolia SIM card in the modem was replaced with a HCS owned Telstra SIM card. Communication with the site restarted immediately and data recommenced downloading. It is apparent there is an issue with the Veolia owned SIM card, possibly an issue with the mobile phone modem account. It is recommended that the SIM card issue be addressed by Veolia.

Should you require any further information on this report please do not hesitate to contact me on 0402 134 092.



Glen Murphy

Hydrometric Consulting Services Pty Ltd

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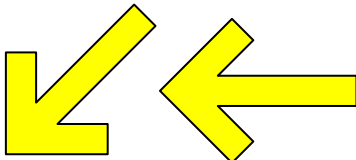
Appendix C –

Field Ambient Odour Assessment Plot and

Field Log Sheets

(18 May 2016)



DESCRIPTION Field Ambient Odour Assessment Survey Modified German Standard VDI 3940		LEGEND German Intensity Scale VDI3882 0 Not detectable 1 Very weak 2 Weak 3 Distinct 4 Strong 5 Very strong 6 Extremely strong		 Veolia (Australia) Pty Ltd Clyde Transfer Terminal, Clyde, NSW Field Ambient Odour Assessment Survey Survey Date: 18 May 2016 Survey Time Period: 1625 hrs – 1725 hrs	
	THE ODOUR UNIT PTY LTD Bay 4 Suite 3011 Australian Technology Park 2 Locomotive Street EVELEIGH, NSW 2015 Phone: (02) 9209 4420 – Fax: (02) 9209 4421 www.odourunit.com.au	DRAWN BY	M.ASSAL 07/06/2016	<u>Odour Audit XXVII</u> Field Ambient Odour Assessment Survey	<u>Plot No.</u> N1473-XXVII
		CHECKED	J.SCHULZ 07/06/2016		<u>Job No.</u> N1473L
		APPROVED	M.ASSAL 08/06/2016		
		Local wind direction (gust) 		Local wind conditions Calm (< 0.5 m/s)	
Refer to FAOA Logsheet N1743L-XXVII for details on recorded odour detections					



THE ODOUR UNIT PTY LTD

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Field Ambient Odour Assessment Log Sheet

Date: 18 May 2016

Assessor: M. Assal

Weather Conditions: clear skies, calm winds (i.e. < 0.5 m/s) and an intermittent wind gust from east-northeast direction

Survey Reference Plot No: N1473L-XXVII							
GRIF REF. POSITION	TIME (hrs)	PREDOMINANT WIND DIRECTION	PREDOMINANT WIND SPEED (m/s)	ODOUR PRESNT (Y/N)	ODOUR CHARACTER	VDI 3940 INTENSITY SCALE 0-6	COMMENTS
1	1625	CALM	CALM	N	--	--	--
2	1631	CALM	CALM	N	--	--	--
3	1642	CALM	CALM	Y	charcoal chicken	2	Intermittent detection, likely source unknown
4	1646	CALM	CALM	Y	charcoal chicken	3	Intermittent detection, likely source unknown
5	1651	CALM	CALM	N	--	--	--
6	1655	CALM	CALM	N	--	--	--
7	1702	CALM	CALM	N	--	--	--
8	1710	CALM	CALM	Y	burnt, smoky	3	Intermittent detection, likely related to Auburn fire incident on the day (as indicated in Main Report)
9	1715	CALM	CALM	N	--	--	--
10	1719	CALM	CALM	N	--	--	--
11	1725	CALM	CALM	N	--	--	--



VEOLIA (AUSTRALIA) PTY LTD

Clyde Waste Transfer Terminal

Odour Audit XXVIII

Final Report

December 2016

THE ODOUR UNIT PTY LTD

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Project Number: N1473L

Report Revision		
Revision Number	Date	Description
Draft report	12.12.2016	Internal review
Final report	20.12.2016	Final report issued to client
Report Preparation		
Report Prepared By: M. Assal		Approved By: T.Schulz
Report Title: Veolia (Australia) Pty Ltd Clyde Waste Transfer Terminal – Odour Audit XXVIII		

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1 INTRODUCTION

The Odour Unit Pty Ltd (TOU) was commissioned by Veolia (Australia) Pty Ltd (Veolia) to undertake the twenty-eighth (XXVIII) Odour Audit at the Clyde Transfer Terminal (the Site) on 9 November 2016. The visit for this Odour Audit was undertaken by a TOU Senior Engineer & Consultant, Michael Assal, and is the eighteenth (18th) to be carried out since the commissioning of the new forced air extraction system within the transfer building. Odour Audit XXVIII covers the 6-month period from 19 May 2016 to 9 November 2016.

The Odour Audit requirements of the *Conditions of Consent – 48(f)* are outlined below:

48. The Odour Management Plan must address, but is not necessarily limited to, the following issues:

(f) An odour audit program which provides for a comprehensive odour audit of the premises and nearby commercial and residential areas, by an independent, appropriately qualified and experienced person, to be conducted 3-monthly for the initial 24 months of receiving un-containerised waste at the terminal, 3-monthly for the 12 months following commissioning the odour control system subject to MOD-133-11-2006, and 6-monthly thereafter, unless otherwise approved in writing by the Director-General.

As with previous Audits, Odour Audit XXVIII focused on issues relating to general housekeeping, fugitive odour emissions from the transfer building, ground level odour impacts, meteorological monitoring, complaints handling, and actions on past Odour Audit recommendations. The audit approach included:

- A general inspection and smoke testing of the transfer building;
- Inspection of the container packing area and site access roads;
- Inspection of the complaint register;
- Review of the site meteorological data log and equipment maintenance/calibration; and
- An off-site downwind Field Ambient Odour Assessment (FAOA) survey.

At the time of the Odour Audit, it was cloudy with predominately calm wind speeds (< 0.5 m/s) and an intermittent wind gust oscillating between the westerly and north-easterly cardinal directions. The ambient temperature during the Odour Audit visit ranged between 19°C and 20°C. Light showers were experienced towards the end of the audit visit.

2 ODOUR AUDIT FINDINGS

2.1 ASSESSMENT OF GENERAL HOUSEKEEPING

2.1.1 Transfer Terminal Building

During the Odour Audit visit on 9 November 2016, there was approximately 250 to 350 tonnes of waste on the floor, according to the Site personnel. This tonnage is considered to be within the normal operational range of the Transfer Terminal Building (TTB). The TTB floor area not covered by waste material was observed to be reasonably clean, with little evidence of leachate or aged material. General housekeeping procedures of the TTB were good, as observed during several truck-unloading sequences. It was also observed that the Site's front-end loaders cleared the floor area of waste on a regular basis, minimising the exposed area of waste.

As with previous audits, and consistent with TOU's experience at other waste transfer stations, there was a weak to distinct level of odour observed within the TTB. A photo of the waste on the floor as found during the Odour Audit visit is shown in **Photo 2.1**.



Photo 2.1 – Waste on-floor as found on 9 November 2016

2.1.2 Container Packing Area and Site Roadways

The container packing area and site roadways were found to be clean and well managed with no evidence of waste or exposed leachate. Similar to previous Odour Audits, the container compacting/train packing area had a weak to distinct odour that was intermittently detectable but was confined to this area only (see **Appendix C** for

Field Ambient Odour Assessment Survey results). Both compactors were operating at the time of the Odour Audit visit. The general house-keeping around this area was observed to be of high quality, with no evidence to suggest otherwise. The condition of the compactor area as found on 9 November 2016 is shown in **Photo 2.2**. As with previous Odour Audits, the containers are cleaned off-site at Veolia's Woodlawn Bioreactor Facility before being returned to the Site. The weight of each container is monitored to determine if there is any waste that has not been removed completely from each container, which in turn reduces the likelihood of the containers contributing to the Site's odour levels.



Photo 2.2 – Compactor area as found on 9 November 2016

As per the Odour Management Procedures at the Site, following the compaction of waste, all filled containers are completely sealed and remain so whilst at the Site. All containers used are required to be in good condition and unused/returned containers adequately clean. The maintenance of the containers continue to be undertaken according to the procedures documented in the *NSW Clyde Transfer Terminal Container Maintenance*. This document addresses all key items including the design of the containers, maintenance and management of the activated carbon filter. Veolia provided a copy of this document as part of the November 2015 Odour Audit.

2.1.3 Odour Extraction System Maintenance

Service documentation was provided and inspected for the maintenance of the odour extraction system (refer **Appendix A**). Service logs were provided covering the period between 19 May 2016 and 9 November 2016.

Each service log provided showed that the required maintenance was taking place and the odour extraction system overall was operating well. The service logs during this period noted that all required maintenance works such as checking the fan belts and unit operations, greasing bearings, and other routine preventative maintenance were being adequately undertaken.

The service logs indicated that the stack discharge velocity was not measured during any of the service visits between 19 May 2016 and 9 November 2016. However, based on the positive results obtained for the smoke testing, odour complaints register, and FAOA survey in the Odour Audit it is likely that the required 19.5 m/s discharge velocity is being achieved. It is recommended that the stack discharge velocity is measured at least once within a 6-month period as part of a routine service visit.

Overall, no significant issues with the fan extraction system was found in the Odour Audit.

2.1.4 Odour Management Procedures

The Odour Management Procedures (formerly known as the Odour Minimising Procedures) continue to be regularly reviewed at Tool Box meetings and new issues/recommendations are raised with all staff members at these meetings.

The Odour Audit was advised that there has been no changes to the odour management procedures since the previous audit.

2.1.5 Transfer Terminal Building

The Odour Audit inspected the fixed metal plates retrofitted along the TTB breezeways in December 2013. All metal plates were found to be intact and in good condition. All doors and roller shutters of the TTB were found to be shut at the time of the Odour Audit, reducing the likelihood of odour impacts detected offsite. The louvers on the end walls of the TTB were observed to be permanently shut.

2.1.6 Truck Entrance Plastic Strips

The truck entrance plastic strips of the TTB, used to reduce odour escaping through the opening, were now found to be fully replaced with new and much more robust strips (see **Photo 2.3**). The Odour Audit finds this to be a good outcome.

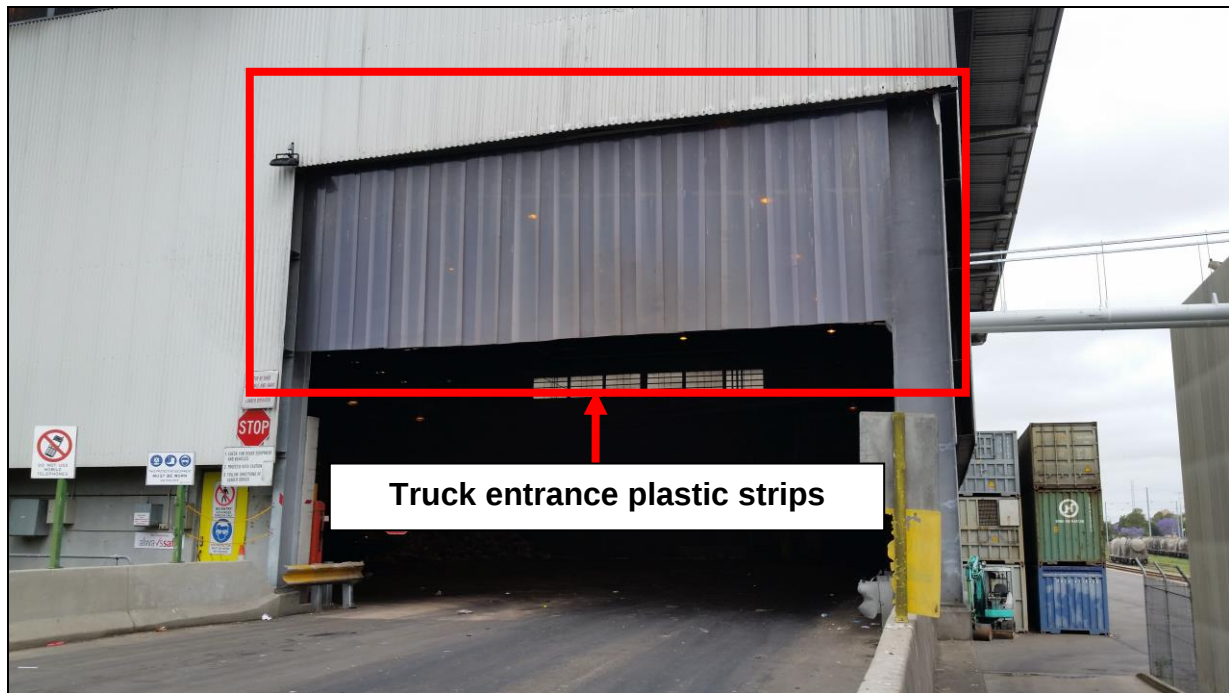


Photo 2.3 –Truck entrance plastic strips as found on 9 November 2016

2.1.7 Smoke Testing

As per previous audits, smoke testing was carried out within the TTB to assist in determining the effectiveness of the forced air extraction system, as well as the extent to which the TTB has been sealed from leaks. Smoke was released from within the building from three (3) different points within the TTB. **Figure 2.1** shows the three points where the smoke was released. These are identical locations to that of previous Odour Audits. **Photo 2.4** shows smoke testing at one of the test locations on 9 November 2016.

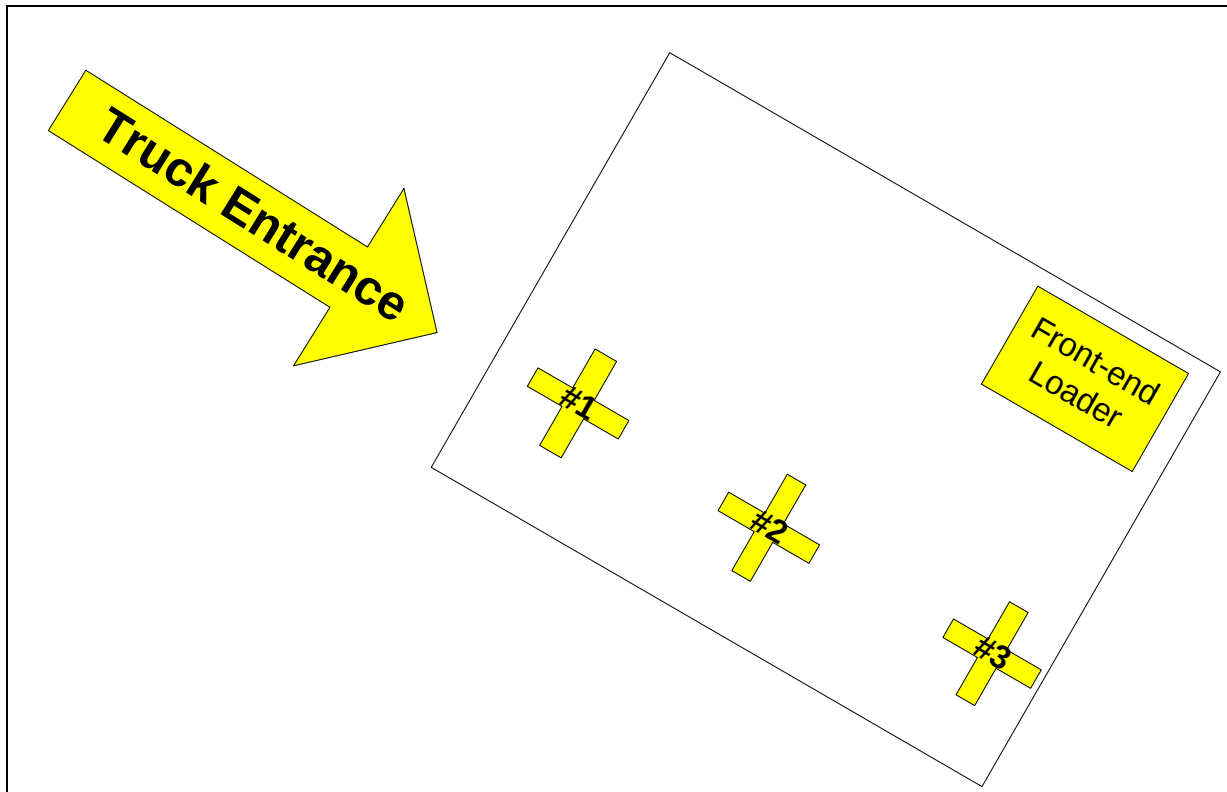


Figure 2.1 - Smoke testing release points within the TTB on 9 November 2016



Photo 2.4 – Smoke testing within the TTB on 9 November 2016

2.1.7.1 Smoke Testing Results

Smoke Testing Point #1

Smoke released at this point initially rose gradually moving towards the truck entrance before rising to the roof and moving slowly towards the extraction system. Visible smoke extraction at the overhead capture points was evident during the smoke testing at this point.

Smoke Testing Point #2

Smoke released at this point revealed a similar result to smoke testing point #1.

Smoke Testing Point #3

Smoke released at this point revealed a similar result to smoke testing point #1.

2.1.8 Stormwater Retention Pond

The auditor observed that there was no effluent in this pond at the time of the Odour Audit visit. Moreover, there was no odour detectable during the Odour Audit visit that could be linked directly back to the stormwater retention pond. **Photo 2.5** shows the state of the pond on 9 November 2016. The small puddle of water observed in the retention pond seen in **Photo 2.5** is stormwater from a rainfall event prior to the Odour Audit visit.



Photo 2.5 – Stormwater retention pond as found on 9 November 2016

2.2 ODOUR COMPLAINTS HANDLING AND METEOROLOGICAL DATA

2.2.1 Odour Complaints Handling

As advised by the Site Manager, there have been no complaints recorded in the site complaints register since March 2012.

2.2.2 Meteorological Data

The meteorological data provided to the Odour Audit for the period between 19 May 2016 and 9 November 2016 was inspected and found to be in good order. As found in previous Odour Audits, the observations were recorded in 15-minute intervals, and included all parameters necessary to develop a meteorological dataset for odour dispersion modelling.

As indicated in the regularly service documents by Hydrometric Consulting Services (HCS) supplied by Veolia to the Odour Audit, the weather station continues to remain located in an accessible area with the solar panel and components regularly cleaned, and installation sprayed regularly for insects and trimming of nearby vegetation as required to ensure no overgrowth immediately around the weather station pole.

The weather data calibration and service reports by HCS are appended as **Appendix B**.

2.3 FIELD AMBIENT ODOUR ASSESSMENT METHODOLOGY

At present, no Australian Standard exists for field based ambient odour assessment surveys. Consequently, TOU utilises a method for assessing the ground level impacts of odour emissions using a modified version of the German Standard VDI 3940 (1993) – *‘Determination of Odorants in Ambient Air by Field Inspections’*.

Field based ambient odour surveys are considered a valuable odour impact assessment tool as previous experience with ambient odour sampling and subsequent olfactometry testing suggests that accurate and useful ambient odour concentration data is difficult to obtain. Therefore, TOU has adopted a more practical approach based on the field measurement of odour intensity. With this method, calibrated and experienced odour specialists traverse the downwind surrounds of odour sources in a strategically mapped pattern, assessing the presence, character and intensity of any odours encountered and recording these observations along with wind speed and direction.

An ambient odour assessment was performed on 9 November 2016 between 1613 hrs and 1652 hrs. The FAOA survey was prematurely completed due to rainfall. The FAOA survey was undertaken at strategic locations, both on-site and off-site. The ambient odour assessment focus was off-site, as required by the Conditions of Consent on “.....*nearby commercial and residential areas*.....” (Section 48 (f)). The

TOU assessor firstly determined the wind direction using a Kestrel 4500 Pocket Weather Tracker Anemometer and then assessed downwind locations of the TTB.

The assessors spent a few minutes at each assessment location in order to gauge the effects of any odour impact. If an odour was detected at a location, the assessors attempted to characterise it. The general aim was to determine the extent of the impact of odours off-site and rank their intensity. The ranking scale for the German Standard VDI 3940 '*Determination of Odorants in Ambient Air by Field Inspections*' was used for the intensity assessments. The standard's ranking system is based on the following seven-point intensity scale, as shown in **Table 2.1** below.

Table 2.1 - VDI 3882 Odour Intensity Categories		
Odour Strength	Intensity Rank (code)	TOU Interpretation (meaning)
Not detectable	0	No odour detected
Very weak	1	Odour detected but not strong enough to be characterised
Weak	2	Odour is weak but just able to be characterised
Distinct	3	Odour is clearly distinct and easily characterised
Strong	4	Strong odour detectable
Very Strong	5	If offensive, observer may consider moving from the area
Extremely Strong	6	Odour is sufficiently over-powering that assessor moves from area

2.3.1 Field Ambient Odour Assessment - Results

The results from the FAOA survey conducted during the Odour Audit found that no odours were detected off-site that could be linked back to the Transfer Terminal Station and its on-site activities. The field log sheets and visual survey plot have been attached as **Appendix C**.

The Odour Audit notes that light showers were experienced towards the end of the FAOA survey period.

3 RECOMMENDATIONS/FOLLOW-UP ACTIONS

3.1 PREVIOUS AUDIT ACTIONS

There were no follow-up actions from the previous Odour Audit.

3.2 TRANSFER TERMINAL BUILDING

All metal plates were found to be intact and in good condition. All doors and roller shutters of the TTB were found to be shut at the time of the Odour Audit, reducing the likelihood of odour impacts detected offsite. The louvers on the end walls of the TTB were observed to be permanently shut. Overall, the TTB was found to be well managed.

Based on the findings in this Odour Audit, the following action/s should be undertaken:

- No further action is required at this stage.

3.3 COMPACTOR AREA

The general house-keeping around this area was observed to be of high quality, with no evidence to suggest otherwise. As with previous Odour Audits, the container compacting/train packing area had a weak to distinct odour that was intermittently detectable but was found to be confined to this area only.

Based on the findings in this Odour Audit, the following action/s should be undertaken:

- No further action is required at this stage.

3.4 ODOUR EXTRACTION SYSTEM

The service logs indicate that all required maintenance works on the odour extraction system since the previous Odour Audit are being adequately undertaken and the system is operating as required.

Based on the findings in this Odour Audit, the following action/s should be undertaken:

- The stack discharge velocity should be measured at least once within a 6-month period as part of a routine service visit.

3.5 WEATHER STATION

The calibration and service reports from HCS indicate that all maintenance to the weather station and required calibrations were being carried out as required.

Based on the findings in this Odour Audit, the following action/s should be undertaken:

- No further action is required at this stage.

3.6 FIELD AMBIENT ODOUR ASSESSMENT SURVEY

The results from the FAOA survey conducted during the Odour Audit found that no odours were detectable off-site that could be linked back to the Transfer Terminal Station and its on-site activities.

3.7 CONCLUDING REMARK

Overall, this Odour Audit found that the operation and maintenance of the odour management system at the Site was satisfactory. There was no evidence to suggest that significant fugitive odour emission release from the Site is occurring.

The next Odour Audit is due in May 2017.



VEOLIA (AUSTRALIA) PTY LTD

Clyde Waste Transfer Terminal

Odour Audit XXVIII

Appendices

December 2016



Appendix A –

Odour Extraction System Service Report

(19 May 2016 – 9 November 2016)



Triple M - NSW - Service Docket

ID	86071
Time Start	Sat Jun 18 2016 15:10:11 GMT+1000 (AEST)
Client Details	CLYDE WASTE
Address	322 Parramatta Rd Clyde NSW 2142
Site Contact Name	BIKRAM SINGH
Site Contact Telephone Number	02 8868 7401
Customer Ref Number	4502301049
Type of Service	Preventative Maintenance - PM
Job / Service Call Number	829638
Fault Description	CLYDE WASTE - PM May L1 - MONTHLY
Asset List	EQUIP-M_Whole of Site - Mech_MONTHLY_Qty:1
Job Safety Analysis Completed	YES
Description of Work Done	Carried out routine maintenance as per schedule. Checked belts that were recently replaced, greased all motor and fan bearings, checked wind speed and fan operations. Brushed of caked on dust deposits. All ok and no issues found.
Parts, Materials?	No
Refrigerant Used?	No
Job Status	Completed
Technician's Signature	
Forwarding Email	ash.turner@veolia.com
Normal Hours	0
Time and a Half	0
Double Time	0
User ID	TMS-MLY
Technician Name	Mick Lye
Iforms Record ID	86071
Record Location	Latitude:-33.714287, Longitude:150.914152, Altitude:74.393677, Speed:0.000000, Horizontal Accuracy:10.000000, Vertical Accuracy:4.000000, Time:3:18:11 pm AEST
Total Hrs	0
Time Completed	2016-06-18 15:10:11

Job Safety Analysis

ID	S86071
Job/Service Call Number	829638
Work to be done.	CLYDE WASTE - PM May L1 - MONTHLY
Protective Equipment to be Used During Works	Gloves, Safety Glasses, High Visibility Garments, Face/Dust mask, Safety Boots/Shoes
Is there clear access to the work area equipment & free from trips, slips & fall hazards?	Yes
Are weather conditions appropriate for the	Yes

Commencement of works?

Is there a potential risk of disturbing asbestos during the works you are undertaking today?

No

Does your task involve working on the roof?

No

Will your task involve Manual Handling?

No

Will your work impact general public/vehicle control?

No

Does your task involve Electrical works?

No

Does your work involve Mechanical works?

Yes

All isolations complete: electrical, refrigeration, air, water, gas.

1

No work until all moving parts have stopped.

1

Does your task involve working from heights (not including roof work) & are there adequate fall prevention controls in place?

No

Working from a step ladder?

No

Electrical tools & equipment being used?

No

Will you be using chemicals during your task?

No

Will you be working in area's that produce excessive noise?

No

Using HazMat?

No

Will you be welding or oxy cutting.

No

Will you be working in or near Cooling towers?

No

Handling refrigerant?

No

Are you working by yourself?

No

Is it safe for you to proceed with your job.

Yes

Technician's Signature



Triple M - NSW - Service Docket

ID	88892
Time Start	Sun Jul 24 2016 21:48:14 GMT+1000 (AEST)
Client Details	CLYDE WASTE
Address	322 Parramatta Rd Clyde NSW 2142
Site Contact Name	BIKRAM SINGH
Site Contact Telephone Number	02 8868 7401
Customer Ref Number	4502301049
Type of Service	Preventative Maintenance - PM
Job / Service Call Number	839789
Fault Description	CLYDE WASTE - PM June L1 - MONTHLY
Asset List	EQUIP-M_Whole of Site - Mech_MONTHLY_Qty:1
Job Safety Analysis Completed	YES
Description of Work Done	Carried out monthly maintenance as per schedule. Checked fan operations and belts. Bearings greased last visit and belts still like new. Brushed off fan cages for air flow. All operations as normal and no issues found.
Parts, Materials?	No
Refrigerant Used?	No
Job Status	Completed
Technician's Signature	
Forwarding Email	ash.turner@veolia.com
Normal Hours	0
Time and a Half	0
Double Time	0
User ID	TMS-MLY
Technician Name	Mick Lye
Iforms Record ID	88892
Record Location	Latitude:-33.714412, Longitude:150.914136, Altitude:60.466980, Speed:0.000000, Horizontal Accuracy:5.000000, Vertical Accuracy:4.000000, Time:9:56:35 pm AEST
Total Hrs	0
Time Completed	2016-07-24 21:48:14

Job Safety Analysis

ID	S88892
Job/Service Call Number	839789
Work to be done.	CLYDE WASTE - PM June L1 - MONTHLY
Protective Equipment to be Used During Works	Gloves, Safety Glasses, High Visibility Garments, Face/Dust mask, Safety Boots/Shoes
Is there clear access to the work area equipment & free from trips, slips & fall hazards?	Yes

Are weather conditions appropriate for the commencement of works?	Yes
Is there a potential risk of disturbing asbestos during the works you are undertaking today?	No
Does your task involve working on the roof?	No
Will your task involve Manual Handling?	No
Will your work impact general public/vehicle control?	No
Does your task involve Electrical works?	No
Does your work involve Mechanical works?	Yes
All isolations complete: electrical, refrigeration, air, water, gas.	1
No work until all moving parts have stopped.	1
Does your task involve working from heights (not including roof work) & are there adequate fall prevention controls in place?	No
Working from a step ladder?	No
Electrical tools & equipment being used?	No
Will you be using chemicals during your task?	No
Will you be working in area's that produce excessive noise?	No
Using HazMat?	No
Will you be welding or oxy cutting.	No
Will you be working in or near Cooling towers?	No
Handling refrigerant?	No
Are you working by yourself?	Yes
Sign in & out of your worksite.	1
Keep in regular contact with your supervisor/coordinator (arriving/leaving site).	1
Is it safe for you to proceed with your job.	Yes

Technician's Signature



Triple M - NSW - Service Docket

Record: 95134	
Time Start	Fri Sep 02 2016 13:08:24 GMT+1000 (AEST)
Client Details	CLYDE WASTE
Address	322 Parramatta Rd Clyde NSW 2142
Site Contact Name	BIKRAM SINGH
Site Contact Telephone Number	02 9841 2600
Customer Ref Number	4502301049
Type of Service	Preventative Maintenance - PM
Job / Service Call Number	853610
Fault Description	CLYDE WASTE - PM August L1 - MONTHLY
Asset List	EQUIP-M_Whole of Site - Mech_ MONTHLY _Qty:1
Job Safety Analysis Completed	YES
Description of Work Done	Maintenance on fan on top floor of waste terminal at Clyde .clean motors and Vsd check v belts and pulleys
Parts, Materials?	No
Refrigerant Used?	No
Job Status	Completed
Technician's Signature	
Client Signature	
Forwarding Email	ash.turner@veolia.com
Normal Hours	0
Time and a Half	0
Double Time	0
User ID	tms-haj
Technician Name	Hayden Johnson
Iforms Record ID	95134
Record Location	Latitude:-33.958870, Longitude:150.948538, Altitude:17.427847, Speed:-1.000000, Horizontal Accuracy:65.000000, Vertical Accuracy:10.000000, Time:4:12:26 pm AEST
Total Hrs	0
Time Completed	2016-09-02 13:08:24

Mobile Data Capture Report

Job Safety Analysis	
Job/Service Call Number	853610
Work to be done.	CLYDE WASTE - PM August L1 - MONTHLY
Protective Equipment to be Used During Works	Gloves, Long Pants, Safety Glasses, Long Sleeve Shirt, High Visibility Garments, Safety Helmet, Face/Dust mask, Safety Boots/Shoes
Is there clear access to the work area equipment & free from trips, slips & fall hazards?	Yes
Are weather conditions appropriate for the commencement of works?	Yes
Is there a potential risk of disturbing asbestos during the works you are undertaking today?	N/A
Does your task involve working on the roof?	N/A
Will your task involve Manual Handling?	N/A
Will your work impact general public/vehicle control?	Yes
Set up barrier(s) around work area(s) to prevent public/traffic entering your work space.	1
Does your task involve Electrical works?	Yes
Isolate ALL energy sources (Primary & Secondary).	1
Locked out & Tagged.	1
Test before touching complete.	1
Does your work involve Mechanical works?	Yes
All isolations complete: electrical, refrigeration, air, water, gas.	1
No work until all moving parts have stopped.	1
Does your task involve working from heights (not including roof work) & are there adequate fall prevention controls in place?	Yes
Comments / additional control measures.	Work in cage ladder
Working from a step ladder?	Yes
Ladder secured.	1
Comments / additional control measures.	
Electrical tools & equipment being used?	N/A
Will you be using chemicals during your task?	N/A
Will you be working in area's that produce excessive noise?	N/A
Using HazMat?	N/A
Will you be welding or oxy cutting.	N/A
Will you be working in or near Cooling towers?	N/A
Handling refrigerant?	N/A
Are you working by yourself?	Yes
Sign in & out of your worksite.	1
Is it safe for you to proceed with your job.	Yes
Technician's Signature	
Forwarding Email	ash.turner@veolia.com

Mobile Data Capture Report

Triple M - NSW - Service Docket

Record: 99432

Time Start	Fri Sep 30 2016 13:43:51 GMT+1000 (AEST)
Client Details	CLYDE WASTE
Address	322 Parramatta Rd Clyde NSW 2142
Site Contact Name	BIKRAM SINGH
Site Contact Telephone Number	02 8868 7401
Customer Ref Number	4502301049
Type of Service	Preventative Maintenance - PM
Job / Service Call Number	861359
Fault Description	CLYDE WASTE - PM September L1 - MONTHLY
Asset List	EQUIP-M_Whole of Site - Mech_MONTHLY_Qty:1
Job Safety Analysis Completed	YES
Description of Work Done	Arrived on site , performed routine maintenance on fans , checked motors , checked bearings , checked shaft wear , checked stop and start operations, all ok
Parts, Materials?	No
Refrigerant Used?	No
Job Status	Completed
Technician's Signature	
Client Signature	
Normal Hours	0
Time and a Half	0
Double Time	0
User ID	TMS-AAL
Technician Name	ANDREW ALESSIO
Iforms Record ID	99432
Record Location	Latitude:-33.837264, Longitude:151.022086, Altitude:-8.178467, Speed:0.000000, Horizontal Accuracy:10.000000, Vertical Accuracy:16.000000, Time:2:16:31 PM AEST
Total Hrs	0
Time Completed	2016-09-30 13:43:51

Mobile Data Capture Report

Job Safety Analysis	
Job/Service Call Number	861359
Work to be done.	CLYDE WASTE - PM September L1 - MONTHLY
Protective Equipment to be Used During Works	Gloves, Long Pants, Safety Glasses, Long Sleeve Shirt, Mask - Combination Filter/Cartridge, Electrical Test Equipment, Safety Boots/Shoes
Is there clear access to the work area equipment & free from trips, slips & fall hazards?	Yes
Are weather conditions appropriate for the commencement of works?	Yes
Is there a potential risk of disturbing asbestos during the works you are undertaking today?	No
Does your task involve working on the roof?	No
Will your task involve Manual Handling?	No
Will your work impact general public/vehicle control?	No
Does your task involve Electrical works?	Yes
Isolate ALL energy sources (Primary & Secondary).	1
Locked out & Tagged.	1
Test before touching complete.	1
Tools & equipment are fit for purpose.	1
Does your work involve Mechanical works?	Yes
All isolations complete: electrical, refrigeration, air, water, gas.	1
No work until all moving parts have stopped.	1
Does your task involve working from heights (not including roof work) & are there adequate fall prevention controls in place?	No
Working from a step ladder?	No
Electrical tools & equipment being used?	No
Will you be using chemicals during your task?	No
Will you be working in area's that produce excessive noise?	No
Using HazMat?	No
Will you be welding or oxy cutting.	No
Will you be working in or near Cooling towers?	No
Handling refrigerant?	No
Are you working by yourself?	No
Is it safe for you to proceed with your job.	Yes
Technician's Signature	
Forwarding Email	ash.turner@veolia.com



Appendix B –

Weather Data Calibration Reports

(19 May 2016 – 9 November 2016)

Hydrometric Consulting Services Pty Ltd

ABN 16 091 437 071

19 May 2016

Sara Maddison
Environmental Engineer
Veolia Australia and New Zealand

Re – Quarterly service of weather stations

Dear Sara,

As per our service agreement, on the 11/05/16 HCS undertook the service, calibration and maintenance of the weather stations located at the Horsley Park and Clyde sites. Field readings were obtained by a combination of a Kestral 3500, compass, Monitor Solar Radiation field unit and HS TBRG calibration device. Details are as follows

Horsley Park 11/05/16

Sensor	Actual (field)	Logger
Temperature – 10m*	14.0	13.9
2m*	14.0	13.5
Relative Humidity*	55	56
Wind Speed	0.9 m/s at ground	1.3 at 10 metres
Wind Direction	0	1
Solar Radiation	360	350
TBRG	10mm	20 tips
Battery/Solar	13.3	

* Note 1: field reading is not inside the radiation shield.

Note 2: ignore rainfall tips logged at approximately 0830 EST as these were testing.

Additional Items

1. Solar panel and components cleaned.
2. Installation sprayed for insects.

Clyde 11/05/16

Sensor	Actual (field)	Logger
Temperature – 10m*	22.0	21.3
2m*	33.0	21.4
Relative Humidity*	22	20
Wind Speed	1.5 at ground (poor exposure at ground)	2.9 at 10 metres
Wind Direction	260	260
Solar Radiation	400	370
TBRG	10mm	20 tips
Battery/Solar	13.7/19.0	

* Note 1: field reading is not inside the radiation shield.

Note 2: ignore rainfall tips logged at approximately 1150 EST as these were testing.

Note 3: the temperature/relative humidity sensor was cleaned.

Additional Items

1. Installation sprayed for insects.
2. Vegetation around instruments trimmed.

Both sites are now polled weekly by HCS and data is downloaded and available on the HCS website.

Communications to the Clyde Site ceased during the week of the site visit. The modem was reset on a number of occasions but communications could not be restored. The site was revisited on 19/05/16 and the Veolia SIM card in the modem was replaced with a HCS owned Telstra SIM card. Communication with the site restarted immediately and data recommenced downloading. It is apparent there is an issue with the Veolia owned SIM card, possibly an issue with the mobile phone modem account. It is recommended that the SIM card issue be addressed by Veolia.

Should you require any further information on this report please do not hesitate to contact me on 0402 134 092.



Glen Murphy

Hydrometric Consulting Services Pty Ltd

PO Box 3332

Putney NSW 2112

Mob 0402 134 092

Email glenmurf@ozemail.com.au

www.hydrometric.com.au

Hydrometric Consulting Services Pty Ltd

ABN 16 091 437 071

17 August 2016

Sara Maddison
Environmental Engineer
Veolia Australia and New Zealand

Re – Quarterly service of weather stations

Dear Sara,

As per our service agreement, on the 17/08/16 HCS undertook the service, calibration and maintenance of the weather stations located at the Horsley Park and Clyde sites. Field readings were obtained by a combination of a Kestral 3500, compass, Monitor Solar Radiation field unit and HS TBRG calibration device. Details are as follows

Horsley Park 17/08/16

Sensor	Actual (field)	Logger
Temperature – 10m*	10.9	10.3
2m*	10.9	10.7
Relative Humidity*	80	79
Wind Speed	1.0 m/s at ground	0.95 m/s at 10 metres
Wind Direction	290	290
Solar Radiation	250	250
TBRG	10mm	20 tips
Battery/Solar	13.2	

* Note 1: field reading is not inside the radiation shield.

Note 2: ignore rainfall tips logged at approximately 0830 EST as these were testing.

Additional Items

1. Solar panel and components cleaned. All components were very dirty.
2. Installation sprayed for insects.

Clyde 17/08/16

Sensor	Actual (field)	Logger
Temperature – 10m*	22.0	21.3
2m*	22.0	21.8
Relative Humidity*	37	37
Wind Speed	1.6 at ground (poor exposure at ground)	1.7 at 10 metres
Wind Direction	290	292
Solar Radiation	600	600
TBRG	10mm	20 tips
Battery/Solar	13.2/20.4	

* Note 1: field reading is not inside the radiation shield.

Note 2: ignore rainfall tips logged at approximately 1115 EST as these were testing.

Additional Items

1. All components cleaned.
2. Installation sprayed for insects.
3. Vegetation around instruments trimmed.

Both sites are now polled weekly by HCS and data is downloaded and available on the HCS website.

The Veolia SIM card was re-installed in the Clyde modem.

Should you require any further information on this report please do not hesitate to contact me on 0402 134 092.



Glen Murphy

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Hydrometric Consulting Services Pty Ltd

ABN 16 091 437 071

14 November 2016

Sara Maddison
Environmental Engineer
Veolia Australia and New Zealand

Re – Quarterly service of weather stations

Dear Sara,

As per our service agreement, on the 14/11/16 HCS undertook the service, calibration and maintenance of the weather stations located at the Horsley Park and Clyde sites. Field readings were obtained by a combination of a Kestral 3500, compass, Monitor Solar Radiation field unit and HS TBRG calibration device. Details are as follows

Horsley Park 14/11/16

Sensor	Actual (field)	Logger
Temperature – 10m*	20.0	19.7
2m*	20.0	20.02
Relative Humidity*	45	44
Wind Speed	7.0 m/s at ground	7.80 m/s at 10 metres
Wind Direction	280	280
Solar Radiation	660	660
TBRG	10mm	20 tips
Battery/Solar	13.8	

* Note 1: field reading is not inside the radiation shield.

Note 2: ignore rainfall tips logged at approximately 0730 EST as these were testing.

Additional Items

1. Solar panel and components cleaned. All components were very dirty.
2. Installation sprayed for insects.
3. Guy wires checked.

Clyde 14/11/16

Sensor	Actual (field)	Logger
Temperature – 10m*	24.0	23.05
2m*	24.0	23.2
Relative Humidity*	30	29.3
Wind Speed	2.5 at ground (poor exposure at ground)	2.75 at 10 metres
Wind Direction	220	220
Solar Radiation	410	400
TBRG	10mm	20 tips
Battery/Solar	13.5	

* Note 1: field reading is not inside the radiation shield.

Note 2: ignore rainfall tips logged at approximately 1030 EST as these were testing.

Additional Items

1. All components cleaned.
2. Installation sprayed for insects.
3. Vegetation around instruments trimmed.

Both sites are now polled weekly by HCS and data is downloaded and available on the HCS website.

The Clyde site could not be polled via modem when testing at the site. The Veolia SIM card was replaced with a HCS SIM card and the site was polled satisfactorily.

There is therefore another issue with the Veolia SIM card that needs to be addressed.

Should you require any further information on this report please do not hesitate to contact me on 0402 134 092.



Glen Murphy

Hydrometric Consulting Services Pty Ltd

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www.hydrometric.com.au



Appendix C –

Field Ambient Odour Assessment Plot and Field Log Sheets

(9 November 2016)



DESCRIPTION

Field Ambient Odour Assessment Survey
Modified German Standard
VDI 3940

LEGEND

German Intensity Scale VDI3882

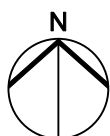
- 0 Not detectable
- 1 Very weak
- 2 Weak
- 3 Distinct
- 4 Strong
- 5 Very strong
- 6 Extremely strong



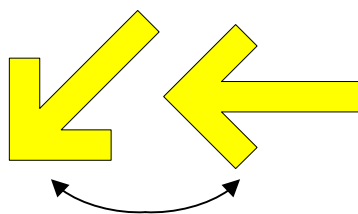
Veolia (Australia) Pty Ltd
Clyde Transfer Terminal, Clyde, NSW
Field Ambient Odour Assessment Survey

Survey Date: 9 November 2016
Survey Time Period: 1613 hrs - 1652 hrs

	THE ODOUR UNIT PTY LTD Bay 4 Suite 3011 Australian Technology Park 2 Locomotive Street EVELEIGH, NSW 2015 Phone: (02) 9209 4420 – Fax: (02) 9209 4421 www.odourunit.com.au	DRAWN BY	M.ASSAL 13/12/2016	Odour Audit XXVIII Field Ambient Odour Assessment Survey	Plot No.
		CHECKED	J.SCHULZ 14/12/2016		Job No.
		APPROVED	M.ASSAL 13/12/2016		N1473L



Local wind direction (gust)



Local wind conditions

Calm (< 0.5 m/s) to light (1 - 3 m/s)

Refer to **FAOA Logsheet N1743L-XXVIII** for details on recorded odour detections

THE ODOUR UNIT PTY LTD



Bay 4 Suite 3011
Australian Technology Park
2 Locomotive Street
EVELEIGH, NSW 2015

Phone: +61 2 9209 4420
Facsimile: +61 2 9209 4421
Email: info@odourunit.com.au
Internet: www.odourunit.com.au
ABN: 53 091 165 061

Field Ambient Odour Assessment Log Sheet

Date: 9 November 2016

Assessor: M. Assal

Weather Conditions: predominately calm wind speeds (< 0.5 m/s) and an intermittent wind gust oscillating between the westerly and north-easterly cardinal directions.

Survey Reference Plot No: N1473L-XXVIII							
GRIF REF. POSITION	TIME (hrs)	PREDOMINANT WIND DIRECTION	PREDOMINANT WIND SPEED (m/s)	ODOUR PRESENT (Y/N)	ODOUR CHARACTER	VDI 3940 INTENSITY SCALE 0-6	COMMENTS
1	1613	NE	1 - 3	Y	bin juice	2	▪ Intermittent detection within the transfer terminal site only
2	1617	NE↔ESE	1 - 3	Y	mildew	1	▪ Intermittent detection
3	1635	WSW	0.5 – 1	N	--	0	--
4	1639	NNW	0.5 – 1	N	--	0	--
5	1644	CALM	CALM	N	--	0	--
6	1648	CALM	CALM	N	--	0	--
7	1652	NNW↔WSW	0.5 - 1	N	--	0	--
8	--	--	--	--	--	--	▪ Survey terminated due to encountering of light showers

CALM = < 0.5 m/s



Appendix C - Monitoring Data

Appendix C3 – Truck Noise Monitoring Report

Annual Truck Noise Measurements

Clyde Transfer Terminal

August 2016



Annual Truck Noise Measurements

Quality Information

Completed by:
Sara Maddison
Environmental Engineer – Resource Recovery

Reviewed by:
Stephen Bernhart
Project Manager – Resource Recovery

Authorised by:
Ramona Bachu
*NSW Environment Officer
(Acting Environmental Management Representative)*

Address: Veolia Australia & New Zealand
Corner Unwin and Shirley Streets, Rosehill, NSW, 2142

Date: August 2016

Reference: CTT_TRUCK_0816

Status: **FINAL**

Revision History and Distribution List:

Rev No.	Details	Issued to	Date
0	Draft	• Veolia (internal QA)	August 2015
1	Final	• Veolia (internal QA)	September 2015

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4. Noise Measurements Results	9
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1. Introduction

The Clyde Transfer Terminal was issued with Conditions of Development Consent (Conditions) by the Department of Planning and Environment (DPE) formerly known as the Department of Planning, which are attached to the Development Consent. The Conditions include a requirement to assess heavy vehicle noise with limits specified in Australian Design Rule 28/01 (ADR 28/01).

The requirements of Condition 112 are as follows:

The Applicant shall implement a Heavy Vehicle Noise Monitoring Management Program for the development to the satisfaction of the Director-General. This program must:

- (a) monitor heavy vehicle noise on site, in accordance with the methods outlined in the “Truck Noise Monitoring – Proposed Test and Management Plan” prepared by Heggies and dated 26 May 2008;
- (b) be undertaken quarterly for a year starting in October 2008, and annually thereafter, unless otherwise agreed by the Director-General;
- (c) measure at least 25% of the heavy vehicles visiting the site;
- (d) identify heavy vehicles exceeding the relevant noise criteria specified in the Australian Design Rule 28/01, or its successor, and ensure that the owners of these subsequently comply with the relevant noise criteria;
- (e) report the number of non-compliant heavy vehicles identified and the actions undertaken to address these non-compliances in the Annual Environmental Monitoring Report; and
- (f) be amended, should the monitoring activities not achieve the aim of the program to the satisfaction of the Director-General.

This Annual Truck Noise Measurements report (the Report) presents the results of the eleventh round of heavy vehicle noise monitoring at the Terminal. Monitoring was completed by the Veolia on the 17 August 2016 between 7:30am and 12:00 pm, in accordance with the Proposed Test Management Plan (PTMP) developed by Heggies. This is the seventh sampling event and report prepared by Veolia under Condition 112 since assuming the responsibility of monitoring from Heggies.

2. Noise Limit Criteria

The noise limit criteria for maximum allowable noise levels for Goods Vehicles described in the PTMP (2008) are provided in Table 1 below.

Table 1: LAmax Noise Limits (dBA) – ADR 28/01

Vehicle Category Code	Vehicle Type	Vehicles In Motion	Stationary Vehicles			
		Direct Injection & Spark Ignition Diesel Engines	Spark Ignition Engines Exhaust Outlet Height		Direct Injection Engines Exhaust Outlet Height	
			<1500mm	≤1500mm	<1500mm	≤1500mm
NA	Light Goods Vehicles GVM ≤3.5t on road use	78 to 80	89	85	99	95
NB	Medium Goods Vehicles GVM >3.5t ≤12t on road use	81 to 84	95	91	101	97
NC	Heavy Goods Vehicles GVM >12t on road use	81 to 87	95	91	103	99

Note: For vehicles in motion test, LAmax noise limits are based on the Gross Vehicle Mass (GVM) and the Net Engine Power (NEP). The noise limits in the table are expressed as a range where the lower noise level refers to the minimum GVM and NEP in each category and the upper noise level refers to the maximum GVM and NEP in each category.

Waste collection trucks entering the Terminal are loaded vehicles with a Gross Vehicle Mass (GVM) over 12 tonnes, based on tare weights of incoming vehicles on the site weighbridge. Hence, for the purpose of conducting a vehicle noise assessment at the Terminal, Vehicle Category Code “NC”, for heavy goods vehicles with a GVM of 12 tonnes or more on road, with a Net Engine Power (NEP) of greater than 150 kilowatts (kW) has been applied. The upper limit (87dBA) of the NC range provided in Table 1 will be used to assess truck noise measurements. This is consistent with the assessment criteria applied by Heggies in previous monitoring rounds.

3. Measurement Methodology

The monitoring location from which the truck noise was measured was consistent with previous monitoring rounds conducted by Veolia and Heggies. Measurements were taken at a distance of 7.5 metres from the centre of vehicle travel path and a height of 1.2 metres above the vehicle entrance ramp from the weighbridge to the Terminal building, which was the test site surface. Trucks accelerating at this location, which is shown in Appendix A, were measured where the vehicle was accelerating in line with the microphone of the sound level meter. For further information regarding measurement location and methodology refer to the PTMP prepared by Heggies (Heggies, 2008).

Measurements were taken with a Casella CEL 633SC Sound Level Meter, using an A-weighted (LA) filter network and fast response time constant as required under ADR 28/01. The (LA) filter ensured that the sound level meter was less sensitive to very high and very low frequencies which would be outside the range of noise emitted by the heavy vehicles entering and exiting the Terminal, while the fast response time constant enabled a more accurate reading of noise from each vehicle movement. Calibration of the Sound Level Meter was completed by Thermofisher Scientific prior to monitoring. The calibration certificate is included in Appendix B.

For each truck movement a LA maximum noise level measurement was recorded. Additional information on each truck movement was noted (where possible) to assist in identification of trucks exceeding noise criteria, including:

- Company;
- Vehicle Make and Type;
- Registration; and
- Exhaust Location.

The collected data was cross referenced with the Terminal's weighbridge records for vehicles entering the facility on 17 August 2016, a copy of which is provided in Appendix C, to identify trucks measured during this sampling period and to calculate the percentage of trucks sampled.

4. Noise Measurements Results

A total of 108 truck movements were recorded entering the Terminal and a measurement for each vehicle movement past the monitoring location was taken as the trucks accelerated on the entrance ramp. Thirty-five (35) of these measurements were under impeded traffic conditions causing distorted noise emissions, caused by queuing of waste trucks waiting to enter the Terminal building during busy periods or idling of engines past the testing zone. Impeded traffic conditions affected the representative quality of the noise measurements. The measured sound levels of each pass-by event were recorded on field sheets, which have been tabulated in Appendix D.

A total measurement of 34.07% of all truck movements (317) was achieved during this monitoring round, which satisfies the minimum requirements of Condition 112 (25% of daily truck movements).

Figure 1 presents the distribution of recorded sound level frequencies which were measured in A-weighted decibels (dBA). Measurements of 'normal' truck acceleration ranged from 70.1dBA to 85.9dBA with the highest frequency occurring between 76dBA to 80dBA. Impaired acceleration readings due to the impeded traffic conditions ranged from 65.2dBA to 81.2dBA. Impaired acceleration readings were plotted separately from the normal accelerating vehicles on Figure 1.

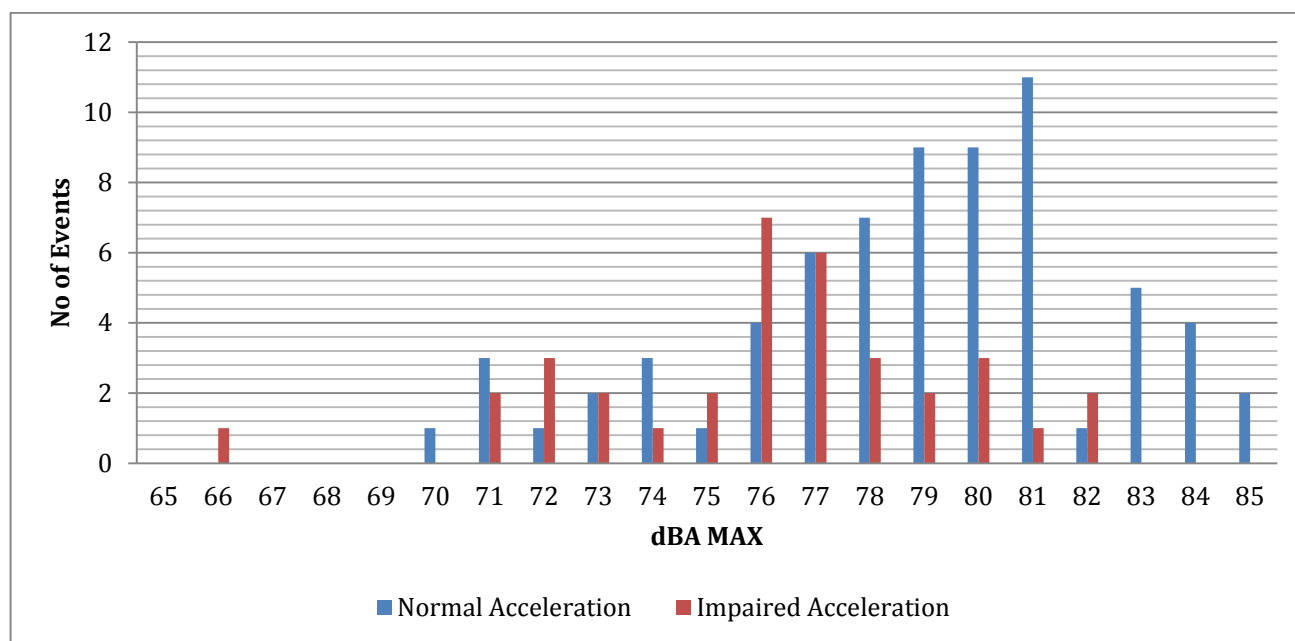


Figure 1: Noise level distribution from Truck Noise Monitoring – 17 August 2016

5. Discussion

Comparison of the heavy vehicle noise measurement results against the limits specified in ADR 28/01 (refer to Table 1) indicates that all trucks entering the Terminal in this monitoring round were within the acceptable noise criteria for the NC category vehicles (<87dBA). Driver behaviour also influenced noise measurements, with faster acceleration leading to higher noise recordings and less acceleration leading to lower noise recordings.

Eight smaller waste vehicles (ranging from approximately 6 – 11 tonnes when loaded) were observed entering the facility during this monitoring event. For the purpose of this assessment it is considered that these vehicles would fall within the NB category with a noise limit of 84dBA. All noise emitted from vehicles assigned to this category was measured below this threshold as indicated in Table 2.

Table 2: NB class vehicle noise measurements

Time	Company	Make	Lift Type	Registration	L _A Max (dBA)	Impeded Movement
8:01	City of Canada Bay Council - TS&O	Kino	Rear	BY51RY	69.4	N
8:09	Ku-ring-gai Council	Mitsubishi	Rear	AA43JJ	76.0	N
9:03	Remondis Australia Pty Ltd		Rear	YLN839	71.5	N
9:32	Hornsby Council	Mitsubishi	Side	GG109	75.2	Y
9:49	Enfield RearLift	Isuzu	Rear	BH82RI	75.0	Y
9:51	Ku-ring-gai Council	Mitsubishi	Rear	AA42JJ	65.2	Y
9:53	Ku-ring-gai Council	Mitsubishi	Rear	YCP248	71.0	Y
10:05	Parramatta City Council Depot V#101	Hino	Rear	BB46JJ	70.4	N

Noise from the Terminal's operations such as plant noise (forklift, compactor, front end loader and road sweeper) and surrounding areas (Parramatta Road, train tracks) were not significant enough to influence waste truck noise measurements at this location. The noise wall located adjacent to the exit ramp, on the North-western boundary of the Terminal, also assisted in focussing noise measurements on truck movements into the facility by limiting interference noise sources.

No noise complaints pertaining to the Terminal's operations were received between the annual truck noise monitoring rounds. This indicates that noise impacts from waste truck movements at the Terminal boundary are within the Terminal and surrounding area background noise levels.

6. Conclusions

Truck noise monitoring was conducted on 17 August 2016 between 7:30am and 12:00am. The results indicated:

- Noise from 108 truck movements was measured;
- A total of 34.07% of truck movements were measured, which satisfies the minimum 25% requirement of Condition 112;
- All measured trucks were identified against weighbridge records to verify the accuracy of field data for reporting.
- All truck noise measurements were within the noise criteria of ADR 28/01 and hence did not exceed the trigger limits.
- Noise from the Terminal's operations was not significant enough to influence the truck noise assessment.
- No noise complaints pertaining to the Terminal's operations were received since the previous truck noise monitoring round.
- Truck noise impacts at the Terminal boundary are considered to be within background levels.

7. References

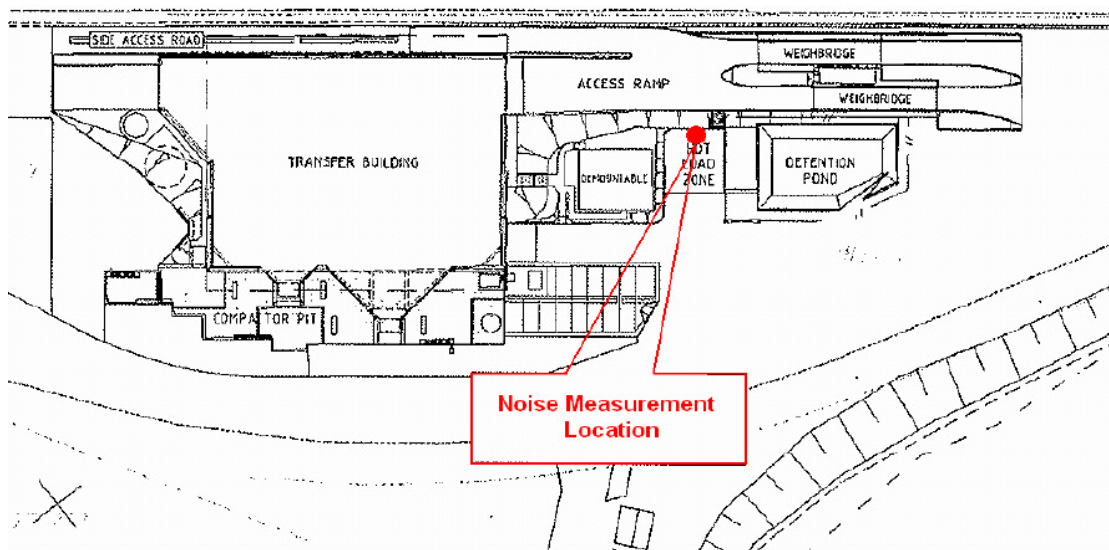
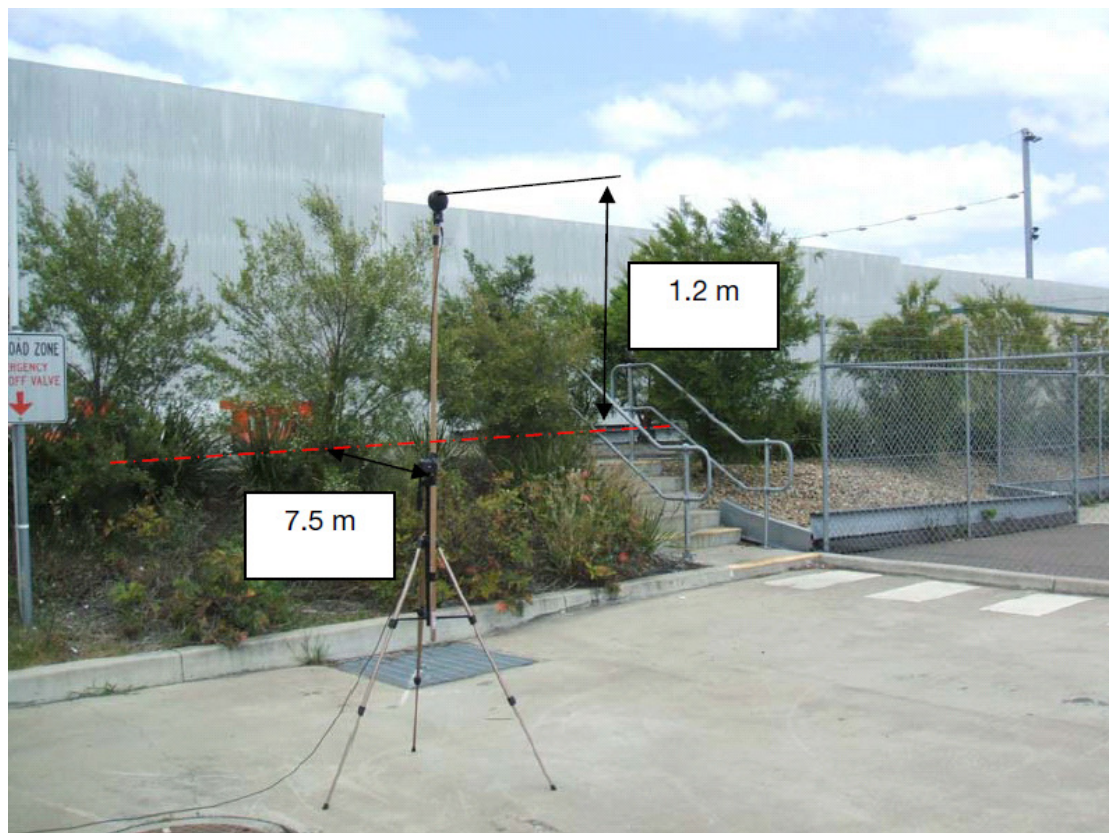
- ADR 28/01 Vehicle Standard Australian Design Rule 28/01 – External Noise of Motor Vehicles), 2006. Federal Register of Legislative Instruments F2006L01279. Australian Government.
- PTMP (2008) Clyde Waste Transfer Facility – Truck Noise Monitoring Proposed Test and Management Plan, 2008. Heggies Pty Ltd.



Appendix A Truck Noise Monitoring Location



Truck Noise Monitoring Location





Appendix B Sound Level Meter Calibration Certificates

RENTALS

Equipment Certification Report – Casella CEL-633 Sound Level Meter

This Sound Level Meter has been checked as follows:

- ☒ Batteries Installed
☒ Data cleared

- ☒ Date and Time checked
☒ Field Calibration at 114.0dB
☒ Date and Time checked

Calibration Variation	<u>114.0</u> dB	Date: <u>15/08/2016</u> <u>16</u> : <u>30</u> h
	☒ OK*	

* Less than ± 0.5 dB

Date: 15/08/2016

Signed: [Signature]

Please check that the following items are received and that all items are cleaned and decontaminated before return. A minimum \$30 cleaning / service / repair charge may be applied to any unclean or damaged items. Items not returned will be billed for at the full replacement cost.

Sent	Returned	Item
☒	☐	Sound Level Meter with fixed lanyard
☒	☐	Windsock
☒	☐	Spare AA Alkaline batteries (Qty 3)
☒	☐	Calibration Certificate
☒	☐	Class 2C Acoustic Calibrator with Calibration Certificate, Serial #: <u>0131815</u>
☒	☐	Spare 9 Volt Battery
☒	☐	USB download cable
☒	☐	Casella Insight software CD
☒	☐	Manual
☒	☐	Calibrator User Instructions
☒	☐	Downloading Instruction Guide
☒	☐	Field Guide
☒	☐	Carry Case

Date: 16/08/2016

Signed: [Signature]

TFS Reference	<u>CS005280</u>	Return Date:	<u>/ /</u>
Customer Reference		Return Time:	
Equipment ID	<u>SLM633SA</u>	Condition on return:	
Equipment Serial No.	<u>1139331</u>		

"We do more than give you great equipment... We give you great solutions!"

Phone: (Free Call) 1300 735 295		Fax: (Free Call) 1800 675 123		Email: RentalsAU@Thermofisher.com	
Melbourne Branch 5 Caribbean Drive, Scoresby 3179	Sydney Branch Level 1, 4 Talavera Road, North Ryde 2113	Adelaide Branch 27 Beulah Road, Norwood, South Australia 5067	Brisbane Branch Unit 2/5 Ross St Newstead 4006	Perth Branch 121 Beringarra Ave Malaga WA 6090	

CERTIFICATE OF CALIBRATION

CERTIFICATE No.: SLM 41666 & FILT 1382

Equipment Description: Sound Level Meter

Manufacturer: Casella

Model No: CEL-63X **Serial No:** 1139331

Microphone Type: CEL-251 **Serial No:** 00829

Filter Type: 1/3 Octave **Serial No:** 1139331

Comments: All tests passed for type 1.
(See over for details)

Owner: Thermo Fisher Scientific Pty Ltd
Unit 5, 4 Talavera Road
North Ryde, NSW 2113

Ambient Pressure: 998 hPa ± 1.5 hPa

Temperature: 22 °C $\pm 2^\circ$ C **Relative Humidity:** 46% $\pm 5\%$

Date of Calibration: 01/08/2016 **Issue Date:** 01/08/2016

Acu-Vib Test Procedure: AVP05 (SLM) & AVP06 (Filters)

CHECKED BY: 

AUTHORISED SIGNATURE: 

Jack Kelt

Accredited for compliance with ISO/IEC 17025

The results of the tests, calibration and/or measurements included in this document are traceable to Australian/national standards.



ACU-VIB
ELECTRONICS

HEAD OFFICE

Unit 14, 22 Hudson Ave. Castle Hill NSW 2154

Tel: (02) 96808133 Fax: (02) 96808233

Mobile: 0413 809806

web site: www.acu-vib.com.au

Accredited Lab. No. 9262
Acoustic and Vibration
Measurements

Page 1 of 2
AVCERT05 Rev. 1.1 11.06.13

CERTIFICATE No.: SLM 41666 & FILT 1382

The performance characteristics listed below were tested. The tests are based on the relevant clauses of A.S. 1259.1 and A.S. 1259.2 - 1990

1. RMS Performance	clause 10.4.5
2. Time Weighting Response, F&S	clause 10.4.2
3. Time Weighting I	clause 10.4.3
4. Time Weighting P	clause 10.4.4
5. Input Attenuator Accuracy	clause 10.3.3
6. Detector & Differential Linearity	clause 10.4.1
7. Weighting Networks & Linearity	clause 10.2.3
8. Overload Indication	clause 10.3.2
9. AC Output & Weighted Noise Level	clause 11. (c). (ii) 10.3.4
10. Time Averaging	clause 9.3.2
11. Absolute Sensitivity	clause 10.2.2

Note: Absolute Sensitivity as found was 93.3 dB and adjusted to 94.1 dB
Least Uncertainty: ± 0.13 dB (at 95% c.l.) $k=2$

This Sound Level Meter included an Octave Filter Set. Tests were based on IEC 1260: 1995 and AS/NZS 4476 - 1997 and were conducted to test the following performance characteristics:

- | | |
|-------------------------|------------|
| 1. Relative attenuation | clause 5.3 |
|-------------------------|------------|

Least uncertainty for relative attenuation (at 95% c.l.) $k=2$:

- ± 0.1 dB for attenuation equal to or less than 6 dB
- ± 0.3 dB for RA from above 6 dB to 18 dB
- ± 0.6 dB for RA from above 18 dB to 80 dB

Date of Calibration: 01/08/2016 Issue Date: 01/08/2016

Checked by: 

Accredited for compliance with ISO/IEC 17025

The results of the tests, calibration and/or measurements included in this document are traceable to Australian/national standards.



Accredited Lab. No. 9262
Acoustic and Vibration
Measurements



HEAD OFFICE
Unit 14, 22 Hudson Ave. Castle Hill NSW 2154
Tel: (02) 96808133 Fax: (02) 96808233
Mobile: 0413 809806
web site: www.acu-vib.com.au

CERTIFICATE OF CALIBRATION

CERTIFICATE No: 19335

EQUIPMENT TESTED: Sound Level Calibrator

Manufacturer: Casella
Type No: CEL-120/1 Serial No: 0131815
Owner: Thermo Fisher Scientific Pty Ltd
Unit 5, 4 Talavera Road
North Ryde, NSW 2113

Tests Performed: Measured output pressure level was found to be:

Parameter	Pre-Adj	Adj Y/N	Output: (db re 20 μ Pa)	Frequency: (Hz)	THD&N (%)
Level 1:	NA	N	93.96	1000.0	1.58
Level 2:	NA	N	113.99	1000.0	0.08
Uncertainty:			± 0.11 dB	± 0.05 Hz	± 0.2 %
Uncertainty (at 95% c.l.) k=2					

CONDITION OF TEST:

Ambient Pressure: 1000 hPa ± 1.5 hPa Relative Humidity: 39% ± 5 %

Temperature: 24 $^{\circ}$ C $\pm 2^{\circ}$ C

Date of Calibration: 01/08/2016 Issue Date: 01/08/2016

Acu-Vib Test Procedure: AVP02 (Calibrators)

Test Method: AS IEC 60942 - 2004

CHECKED BY: AUTHORISED SIGNATURE:
Jack Kieft

Accredited for compliance with ISO/IEC 17025

The results of the tests, calibration and/or measurements included in this document are traceable to Australian/national standards.



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Appendix C Weighbridge Records

Date : 17/08/2016

Plant: Clyde PWS Report

Facility	Trans.Date	Time	License No	Customer Name
Clyde	17/08/2016	0:07	BI10VG	Enfield Bulk
Clyde	17/08/2016	0:09	URM020	URM Environmental Services Pty Limi
Clyde	17/08/2016	0:16	CB18SE	Enfield FrontLift
Clyde	17/08/2016	0:21	CH99NJ	Remondis Australia Pty Ltd
Clyde	17/08/2016	0:27	BS97WD	Bingo Recycling Pty Ltd
Clyde	17/08/2016	0:39	AA42JJ	Ku-ring-gai Council
Clyde	17/08/2016	0:50	BP93PW	The Council of the City of Sydney
Clyde	17/08/2016	0:53	BV02JR	Enfield Bulk
Clyde	17/08/2016	1:04	CD69KW	Enfield FrontLift
Clyde	17/08/2016	1:10	BY25PU	Remondis Australia Pty Ltd
Clyde	17/08/2016	1:11	BR35PO	Remondis Australia Pty Ltd
Clyde	17/08/2016	1:16	ISTINK	Remondis Australia Pty Ltd
Clyde	17/08/2016	1:17	CC75DT	ORG Organic Recycling Group Pty Ltd
Clyde	17/08/2016	1:24	2URM	URM Environmental Services Pty Limi
Clyde	17/08/2016	1:27	URM414	URM Environmental Services Pty Limi
Clyde	17/08/2016	1:43	BD96ZZ	Enfield RearLift
Clyde	17/08/2016	1:47	AO09YC	Remondis Australia Pty Ltd
Clyde	17/08/2016	1:52	BV45NI	Capital City Waste Services Pty Ltd
Clyde	17/08/2016	1:55	YLN839	Remondis Australia Pty Ltd
Clyde	17/08/2016	1:56	URM039	URM Environmental Services Pty Limi
Clyde	17/08/2016	1:59	WTRANS	Enfield Bulk
Clyde	17/08/2016	2:04	WTRANS	Enfield Bulk
Clyde	17/08/2016	2:06	CF47UC	Enfield RearLift
Clyde	17/08/2016	2:07	URM406	URM Environmental Services Pty Limi
Clyde	17/08/2016	2:17	CG21CX	Remondis Australia Pty Ltd
Clyde	17/08/2016	2:29	BIN749	Bingo Recycling Pty Ltd
Clyde	17/08/2016	2:30	AR09AM	Enfield FrontLift
Clyde	17/08/2016	2:31	BV02JR	Enfield Bulk
Clyde	17/08/2016	2:33	YCP248	Ku-ring-gai Council
Clyde	17/08/2016	2:40	AZ13JG	Enfield RearLift
Clyde	17/08/2016	2:51	CG21CX	Remondis Australia Pty Ltd
Clyde	17/08/2016	3:00	BI10VG	Enfield Bulk
Clyde	17/08/2016	3:01	CB18SE	Enfield FrontLift
Clyde	17/08/2016	3:02	CI15WC	J.J. Richards & Sons Pty Ltd
Clyde	17/08/2016	3:12	AO09YC	Remondis Australia Pty Ltd
Clyde	17/08/2016	3:17	ISTINK	Remondis Australia Pty Ltd
Clyde	17/08/2016	3:19	CA76RA	Ku-ring-gai Council
Clyde	17/08/2016	3:20	AV18XT	Enfield FrontLift
Clyde	17/08/2016	3:24	BL63SB	Enfield Bulk
Clyde	17/08/2016	3:24	BIN744	Bingo Recycling Pty Ltd
Clyde	17/08/2016	3:25	AA43JJ	Ku-ring-gai Council
Clyde	17/08/2016	3:31	CD69KW	Enfield FrontLift
Clyde	17/08/2016	3:35	BK19BD	Enfield Bulk
Clyde	17/08/2016	3:38	CD98FV	ORG Organic Recycling Group Pty Ltd
Clyde	17/08/2016	3:41	BH82RI	Enfield RearLift
Clyde	17/08/2016	3:49	YLN839	Remondis Australia Pty Ltd
Clyde	17/08/2016	3:59	AA42JJ	Ku-ring-gai Council
Clyde	17/08/2016	3:59	CE39XP	Enfield FrontLift
Clyde	17/08/2016	4:01	BH61CA	Enfield Bulk

Facility	Trans.Date	Time	License No	Customer Name
Clyde	17/08/2016	4:04	BN30GB	Canterbury City Council
Clyde	17/08/2016	4:15	BIN734	Bingo Recycling Pty Ltd
Clyde	17/08/2016	4:24	AV19XT	Enfield FrontLift
Clyde	17/08/2016	4:25	BD88RL	Enfield FrontLift
Clyde	17/08/2016	4:27	BN31GB	Canterbury City Council
Clyde	17/08/2016	4:28	BR90UA	J.J. Richards & Sons Pty Ltd
Clyde	17/08/2016	4:29	BX79VE	Canterbury City Council
Clyde	17/08/2016	4:32	URM039	URM Environmental Services Pty Limi
Clyde	17/08/2016	4:37	YCP248	Ku-ring-gai Council
Clyde	17/08/2016	4:38	AO09YC	Remondis Australia Pty Ltd
Clyde	17/08/2016	4:38	AY75CT	Auburn Council
Clyde	17/08/2016	4:39	BS02DN	J.J. Richards & Sons Pty Ltd
Clyde	17/08/2016	4:40	BK19BD	Enfield Bulk
Clyde	17/08/2016	4:46	URM076	URM Environmental Services Pty Limi
Clyde	17/08/2016	4:49	BQ69KC	Canterbury City Council
Clyde	17/08/2016	4:58	BE48SD	Ashfield Council
Clyde	17/08/2016	5:03	CC20KM	Enfield Bulk
Clyde	17/08/2016	5:11	BI22FV	Earthpower Technologies Sydney Pty.
Clyde	17/08/2016	5:13	BP02LI	Canterbury City Council
Clyde	17/08/2016	5:15	AY88AM	Auburn Council
Clyde	17/08/2016	5:22	URM355	URM Environmental Services Pty Limi
Clyde	17/08/2016	5:24	BQ15DM	Canterbury City Council
Clyde	17/08/2016	5:36	CB18SE	Enfield FrontLift
Clyde	17/08/2016	5:38	BX76XT	Remondis Australia Pty Ltd
Clyde	17/08/2016	5:47	BK19BD	Enfield Bulk
Clyde	17/08/2016	5:48	AY29JL	Auburn Council
Clyde	17/08/2016	5:52	BG05HG	Strathfield Municipal Council
Clyde	17/08/2016	5:57	BI10VG	Enfield Bulk
Clyde	17/08/2016	5:57	BP10AW	Enfield FrontLift
Clyde	17/08/2016	6:11	CE42GN	Auburn Council
Clyde	17/08/2016	6:15	CH17DE	Remondis Australia (Taren Point) Pt
Clyde	17/08/2016	6:16	AY89AM	Auburn Council
Clyde	17/08/2016	6:21	BV02JR	Enfield Bulk
Clyde	17/08/2016	6:27	YCP248	Ku-ring-gai Council
Clyde	17/08/2016	6:27	GG169	Hornsby Council
Clyde	17/08/2016	6:28	ISTINK	Remondis Australia Pty Ltd
Clyde	17/08/2016	6:29	CE62XY	The Council of the City of Sydney
Clyde	17/08/2016	6:32	CE69JK	Auburn Council
Clyde	17/08/2016	6:34	BX99UJ	Enfield FrontLift
Clyde	17/08/2016	6:38	BI82JD	Hunter's Hill Council
Clyde	17/08/2016	6:41	CI23DH	Leichhardt Municipal Council
Clyde	17/08/2016	7:06	AY75CT	Auburn Council
Clyde	17/08/2016	7:11	CD42KE	Parramatta City Council Depot V#101
Clyde	17/08/2016	7:12	BD88RL	Enfield FrontLift
Clyde	17/08/2016	7:13	CB46UN	City of Ryde
Clyde	17/08/2016	7:20	CF33PN	City of Canada Bay Council - Domestic
Clyde	17/08/2016	7:21	CD28PG	City of Ryde
Clyde	17/08/2016	7:26	CD29PG	City of Ryde
Clyde	17/08/2016	7:26	BN18VS	Enfield RearLift
Clyde	17/08/2016	7:27	AY88AM	Auburn Council
Clyde	17/08/2016	7:28	ZJH172	Canterbury City Council
Clyde	17/08/2016	7:32	BG05HG	Strathfield Municipal Council
Clyde	17/08/2016	7:35	CF32CS	Burwood Council - Trade Waste Servi

Facility	Trans.Date	Time	License No	Customer Name
Clyde	17/08/2016	7:35	CF47UC	Enfield RearLift
Clyde	17/08/2016	7:39	BN29GB	Canterbury City Council
Clyde	17/08/2016	7:39	AR09LS	The Hills Shire Council
Clyde	17/08/2016	7:43	AL78KF	Remondis Australia Pty Ltd
Clyde	17/08/2016	7:44	CE98GR	City of Ryde
Clyde	17/08/2016	7:54	CD26PG	City of Ryde
Clyde	17/08/2016	7:56	BI46EF	City of Ryde
Clyde	17/08/2016	8:01	BY51RY	City of Canada Bay Council - TS&O
Clyde	17/08/2016	8:01	BD96ZZ	Enfield RearLift
Clyde	17/08/2016	8:02	CE42GN	Auburn Council
Clyde	17/08/2016	8:04	MT2750	Remondis Australia Pty Ltd
Clyde	17/08/2016	8:05	AK69BL	City of Ryde
Clyde	17/08/2016	8:09	AA43JJ	Ku-ring-gai Council
Clyde	17/08/2016	8:12	URM137	Lane Cove Council
Clyde	17/08/2016	8:18	BE48SD	Ashfield Council
Clyde	17/08/2016	8:22	BR68TD	Strathfield Municipal Council
Clyde	17/08/2016	8:22	AY29JL	Auburn Council
Clyde	17/08/2016	8:23	BL63RQ	Strathfield Municipal Council
Clyde	17/08/2016	8:23	AR09AM	Enfield FrontLift
Clyde	17/08/2016	8:24	CH03VX	J.J. Richards & Sons Pty Ltd
Clyde	17/08/2016	8:28	BR90UA	J.J. Richards & Sons Pty Ltd
Clyde	17/08/2016	8:29	CD34SC	J.J. Richards & Sons Pty Ltd
Clyde	17/08/2016	8:33	BF41VN	Burwood Council
Clyde	17/08/2016	8:35	BS48WI	The Hills Shire Council
Clyde	17/08/2016	8:35	AW67CF	Burwood Council
Clyde	17/08/2016	8:37	CD85SC	City of Ryde
Clyde	17/08/2016	8:45	CI27XY	Leichhardt Municipal Council
Clyde	17/08/2016	8:46	AR36AI	Hornsby Council
Clyde	17/08/2016	8:48	CF65GX	Auburn Council
Clyde	17/08/2016	8:48	CB18SE	Enfield FrontLift
Clyde	17/08/2016	9:03	YLN839	Remondis Australia Pty Ltd
Clyde	17/08/2016	9:04	CB51AC	J.J. Richards & Sons Pty Ltd
Clyde	17/08/2016	9:09	AR97WK	The Hills Shire Council
Clyde	17/08/2016	9:11	BT19EZ	Remondis Australia Pty Ltd
Clyde	17/08/2016	9:14	BM69KE	Remondis Australia Pty Ltd
Clyde	17/08/2016	9:16	CE72ZF	City of Canada Bay Council - Domest
Clyde	17/08/2016	9:17	BX79VE	Canterbury City Council
Clyde	17/08/2016	9:17	BE24HU	Canterbury City Council
Clyde	17/08/2016	9:18	BP01LI	Canterbury City Council
Clyde	17/08/2016	9:21	URM468	Lane Cove Council
Clyde	17/08/2016	9:21	CF33PN	City of Canada Bay Council - Domest
Clyde	17/08/2016	9:22	BN30GB	Canterbury City Council
Clyde	17/08/2016	9:22	BN88CO	J.J. Richards & Sons Pty Ltd
Clyde	17/08/2016	9:23	CE19XX	Ashfield Council
Clyde	17/08/2016	9:23	AZ44YE	Express Waste Pty Limited
Clyde	17/08/2016	9:25	AR35AI	Hornsby Council
Clyde	17/08/2016	9:28	BY36TZ	Enfield Bulk
Clyde	17/08/2016	9:29	AY29JL	Auburn Council
Clyde	17/08/2016	9:29	AR48AI	The Hills Shire Council
Clyde	17/08/2016	9:30	CD64NX	Leichhardt Municipal Council
Clyde	17/08/2016	9:32	BN31GB	Canterbury City Council
Clyde	17/08/2016	9:32	CA51HK	Leichhardt Municipal Council
Clyde	17/08/2016	9:32	GG109	Hornsby Council

Facility	Trans.Date	Time	License No	Customer Name
Clyde	17/08/2016	9:33	AR10LS	The Hills Shire Council
Clyde	17/08/2016	9:37	AR49AI	The Hills Shire Council
Clyde	17/08/2016	9:41	CI23DH	Leichhardt Municipal Council
Clyde	17/08/2016	9:44	AR22LS	The Hills Shire Council
Clyde	17/08/2016	9:44	BS30HM	Leichhardt Municipal Council
Clyde	17/08/2016	9:45	CB46UN	City of Ryde
Clyde	17/08/2016	9:46	CE65RY	City of Canada Bay Council - Domestic
Clyde	17/08/2016	9:49	CE54QB	Hornsby Council
Clyde	17/08/2016	9:49	BH82RI	Enfield RearLift
Clyde	17/08/2016	9:49	BP02LI	Canterbury City Council
Clyde	17/08/2016	9:51	AA42JJ	Ku-ring-gai Council
Clyde	17/08/2016	9:53	YCP248	Ku-ring-gai Council
Clyde	17/08/2016	9:54	AY75CT	Auburn Council
Clyde	17/08/2016	9:58	CD82YN	Ku-ring-gai Council
Clyde	17/08/2016	9:58	CE57RY	City of Canada Bay Council - Domestic
Clyde	17/08/2016	9:59	CE39XP	Enfield FrontLift
Clyde	17/08/2016	9:59	AR38AI	The Hills Shire Council
Clyde	17/08/2016	10:04	BE21KN	Hornsby Council
Clyde	17/08/2016	10:05	BB46JJ	Parramatta City Council Depot V#101
Clyde	17/08/2016	10:05	CE28CW	J.J. Richards & Sons Pty Ltd
Clyde	17/08/2016	10:06	BH14HJ	City of Canada Bay Council - Domestic
Clyde	17/08/2016	10:11	BE74KO	Hornsby Council
Clyde	17/08/2016	10:13	BL63SB	Enfield Bulk
Clyde	17/08/2016	10:15	BN56QO	Canterbury City Council
Clyde	17/08/2016	10:17	BS98WE	Enfield RearLift
Clyde	17/08/2016	10:18	1EQQ706	Ku-ring-gai Council
Clyde	17/08/2016	10:23	CE74GO	Remondis Australia Pty Ltd
Clyde	17/08/2016	10:28	BN73GB	Canterbury City Council
Clyde	17/08/2016	10:33	CGG4053	Ku-ring-gai Council
Clyde	17/08/2016	10:35	BL49JB	Lane Cove Council
Clyde	17/08/2016	10:36	CGG4052	Ku-ring-gai Council
Clyde	17/08/2016	10:38	URM577	Hunter's Hill Council
Clyde	17/08/2016	10:39	AY89AM	Auburn Council
Clyde	17/08/2016	10:41	AZ13JG	Enfield RearLift
Clyde	17/08/2016	10:44	AQ97PD	Parramatta City Council Depot V#101
Clyde	17/08/2016	10:46	URM393	Hunter's Hill Council
Clyde	17/08/2016	10:48	BE93DJ	Hornsby Council
Clyde	17/08/2016	10:51	ZKG100	The Hills Shire Council
Clyde	17/08/2016	10:53	URM450	Lane Cove Council
Clyde	17/08/2016	10:54	BE73KP	Hornsby Council
Clyde	17/08/2016	10:54	BR90UA	J.J. Richards & Sons Pty Ltd
Clyde	17/08/2016	10:57	URM020	Lane Cove Council
Clyde	17/08/2016	10:59	AA66JF	Ku-ring-gai Council
Clyde	17/08/2016	10:59	YHL611	Remondis Australia Pty Ltd
Clyde	17/08/2016	11:00	AP96TO	Parramatta City Council Depot V#101
Clyde	17/08/2016	11:03	CH99NJ	Remondis Australia Pty Ltd
Clyde	17/08/2016	11:08	BB05GH	Ashfield Council
Clyde	17/08/2016	11:08	AY73LY	Remondis Australia Pty Ltd
Clyde	17/08/2016	11:15	URM237	Lane Cove Council
Clyde	17/08/2016	11:15	BL54KN	Ashfield Council
Clyde	17/08/2016	11:22	AZ41AD	Enfield RearLift
Clyde	17/08/2016	11:22	CE98GR	City of Ryde
Clyde	17/08/2016	11:28	BH63QY	Parramatta City Council Depot V#101

Facility	Trans.Date	Time	License No	Customer Name
Clyde	17/08/2016	11:28	CD28PG	City of Ryde
Clyde	17/08/2016	11:29	BE15HT	Hornsby Council
Clyde	17/08/2016	11:31	BE57KP	Hornsby Council
Clyde	17/08/2016	11:31	BX99UJ	Enfield FrontLift
Clyde	17/08/2016	11:35	AK69BL	City of Ryde
Clyde	17/08/2016	11:35	AP47PT	Canterbury City Council
Clyde	17/08/2016	11:37	BX77NO	Enfield FrontLift
Clyde	17/08/2016	11:38	CD29PG	City of Ryde
Clyde	17/08/2016	11:45	CH50VI	Remondis Australia Pty Ltd
Clyde	17/08/2016	11:48	AR09LS	The Hills Shire Council
Clyde	17/08/2016	11:51	CI15WC	J.J. Richards & Sons Pty Ltd
Clyde	17/08/2016	11:52	CD26PG	City of Ryde
Clyde	17/08/2016	11:53	BE24HU	Canterbury City Council
Clyde	17/08/2016	11:58	2URM	URM Environmental Services Pty Limi
Clyde	17/08/2016	12:04	AV19XT	Enfield FrontLift
Clyde	17/08/2016	12:14	BY49NW	Enfield Bulk IRR
Clyde	17/08/2016	12:15	BA98FZ	Enfield FrontLift
Clyde	17/08/2016	12:15	CD85SC	City of Ryde
Clyde	17/08/2016	12:16	BJ99XU	Lane Cove Council
Clyde	17/08/2016	12:19	BE48SD	Ashfield Council
Clyde	17/08/2016	12:22	BD88RL	Enfield FrontLift
Clyde	17/08/2016	12:22	CJ58CB	J.J. Richards & Sons Pty Ltd
Clyde	17/08/2016	12:23	CE28CW	J.J. Richards & Sons Pty Ltd
Clyde	17/08/2016	12:23	BU43PS	Enfield FrontLift
Clyde	17/08/2016	12:27	URM474	URM Environmental Services Pty Limi
Clyde	17/08/2016	12:32	AP58YU	J.J. Richards & Sons Pty Ltd
Clyde	17/08/2016	12:34	AR35AI	Hornsby Council
Clyde	17/08/2016	12:37	CI16WF	J.J. Richards & Sons Pty Ltd
Clyde	17/08/2016	12:37	BS48WI	The Hills Shire Council
Clyde	17/08/2016	12:44	BD49ZB	Hornsby Council
Clyde	17/08/2016	12:44	CE72ZF	City of Canada Bay Council - Domestic
Clyde	17/08/2016	13:01	BX75PI	Leichhardt Municipal Council
Clyde	17/08/2016	13:02	CE19XX	Ashfield Council
Clyde	17/08/2016	13:07	1EQQ706	Ku-ring-gai Council
Clyde	17/08/2016	13:09	AW67CF	Burwood Council
Clyde	17/08/2016	13:12	URM737	Hunter's Hill Council
Clyde	17/08/2016	13:14	CD26ZC	J.J. Richards & Sons Pty Ltd
Clyde	17/08/2016	13:15	CA56NV	J.J. Richards & Sons Pty Ltd
Clyde	17/08/2016	13:20	BN29GB	Canterbury City Council
Clyde	17/08/2016	13:22	CA63MP	Ashfield Council
Clyde	17/08/2016	13:26	BB21FO	J.J. Richards & Sons Pty Ltd
Clyde	17/08/2016	13:38	BX79VE	Canterbury City Council
Clyde	17/08/2016	13:39	BP91NN	Remondis Australia Pty Ltd
Clyde	17/08/2016	13:45	CH16DE	Remondis Australia Pty Ltd
Clyde	17/08/2016	13:45	YXC545	J.J. Richards & Sons Pty Ltd
Clyde	17/08/2016	13:48	AR97WK	The Hills Shire Council
Clyde	17/08/2016	13:50	WTRANS	Enfield Bulk
Clyde	17/08/2016	13:52	CE57RY	City of Canada Bay Council - Domestic
Clyde	17/08/2016	13:54	BP01LI	Canterbury City Council
Clyde	17/08/2016	13:55	AR21LS	The Hills Shire Council
Clyde	17/08/2016	13:58	BN31GB	Canterbury City Council
Clyde	17/08/2016	14:04	CE65RY	City of Canada Bay Council - Domestic
Clyde	17/08/2016	14:04	BH14HJ	City of Canada Bay Council - Domestic

Facility	Trans.Date	Time	License No	Customer Name
Clyde	17/08/2016	14:08	AA66JF	Ku-ring-gai Council
Clyde	17/08/2016	14:09	CD82YN	Ku-ring-gai Council
Clyde	17/08/2016	14:12	CGG4052	Ku-ring-gai Council
Clyde	17/08/2016	14:14	AR38AI	The Hills Shire Council
Clyde	17/08/2016	14:15	AR22LS	The Hills Shire Council
Clyde	17/08/2016	14:16	WUK075	Hornsby Council
Clyde	17/08/2016	14:16	AU57QJ	Enfield FrontLift
Clyde	17/08/2016	14:17	BE21KN	Hornsby Council
Clyde	17/08/2016	14:18	BE94DJ	Hornsby Council
Clyde	17/08/2016	14:18	BE74KO	Hornsby Council
Clyde	17/08/2016	14:20	BE93DJ	Hornsby Council
Clyde	17/08/2016	14:29	AR09AM	Enfield FrontLift
Clyde	17/08/2016	14:36	AR09LS	The Hills Shire Council
Clyde	17/08/2016	14:37	ZKG100	The Hills Shire Council
Clyde	17/08/2016	14:37	BD49ZB	Hornsby Council
Clyde	17/08/2016	14:38	AR10LS	The Hills Shire Council
Clyde	17/08/2016	14:39	AR48AI	The Hills Shire Council
Clyde	17/08/2016	14:40	BF41VN	The Hills Shire Council
Clyde	17/08/2016	14:42	URM137	Lane Cove Council
Clyde	17/08/2016	14:44	AR49AI	The Hills Shire Council
Clyde	17/08/2016	14:44	BE57KP	Hornsby Council
Clyde	17/08/2016	15:18	BE73KP	Hornsby Council
Clyde	17/08/2016	15:39	ISTINK	Remondis Australia Pty Ltd
Clyde	17/08/2016	15:50	AP96TO	Parramatta City Council Depot V#101
Clyde	17/08/2016	16:28	MT2750	Remondis Australia Pty Ltd
Clyde	17/08/2016	17:51	ZLD406	Remondis Australia Pty Ltd
Clyde	17/08/2016	17:56	BA98FZ	Enfield FrontLift
Clyde	17/08/2016	18:08	WTRANS	Enfield Bulk
Clyde	17/08/2016	19:04	BN52RX	Enfield RearLift
Clyde	17/08/2016	19:44	BS30HM	Leichhardt Municipal Council
Clyde	17/08/2016	19:55	BIN706	Bingo Recycling Pty Ltd
Clyde	17/08/2016	20:22	CA51HK	Leichhardt Municipal Council
Clyde	17/08/2016	20:31	CE46AG	Enfield FrontLift
Clyde	17/08/2016	20:33	ZLD406	Remondis Australia Pty Ltd
Clyde	17/08/2016	20:47	WTRANS	Enfield Bulk
Clyde	17/08/2016	20:48	CI27XY	Leichhardt Municipal Council
Clyde	17/08/2016	21:00	CAL068	Enfield RearLift
Clyde	17/08/2016	21:03	BI10VG	Enfield Bulk
Clyde	17/08/2016	21:12	WTRANS	Enfield Bulk
Clyde	17/08/2016	21:15	URM039	URM Environmental Services Pty Limi
Clyde	17/08/2016	22:10	AA77JG	Ku-ring-gai Council
Clyde	17/08/2016	22:37	URM049	URM Environmental Services Pty Limi
Clyde	17/08/2016	22:45	AV19XT	Enfield FrontLift
Clyde	17/08/2016	22:47	WTRANS	Enfield Bulk
Clyde	17/08/2016	22:52	WTRANS	Enfield Bulk
Clyde	17/08/2016	23:01	WTRANS	Enfield Bulk
Clyde	17/08/2016	23:04	BH82RI	Enfield RearLift
Clyde	17/08/2016	23:08	URM079	URM Environmental Services Pty Limi
Clyde	17/08/2016	23:11	WTRANS	Enfield Bulk
Clyde	17/08/2016	23:12	DCK010	Remondis Australia Pty Ltd
Clyde	17/08/2016	23:30	AA82JI	Ku-ring-gai Council
Clyde	17/08/2016	23:33	1EQR123	Ku-ring-gai Council
Clyde	17/08/2016	23:33	AA43JJ	Ku-ring-gai Council

Facility	Trans.Date	Time	License No	Customer Name
Clyde	17/08/2016	23:36	URM406	URM Environmental Services Pty Limi
Clyde	17/08/2016	23:47	URM414	URM Environmental Services Pty Limi
Clyde	17/08/2016	23:49	AR09AM	Enfield FrontLift



Appendix D Truck Noise Measurement Field Sheets

Noise Measurement Results

Time	Company	Make	Lift Type	Registration	Exhaust Location	L _A Max (dBA)	Impeded Movement
9:51	Ku-ring-gai Council	Mitsubishi	Rear	AA42JJ	Front Left	65.2	Y
8:01	City of Canada Bay Council - TS&O	Kino	Rear	BY51RY	Front Right	69.4	N
9:18	Canterbury City Council	Dennis	Rear	BP01LI	Bottom Left	70.1	Y
8:23	Strathfield Municipal Council	Hino	Side	BL63RQ		70.2	N
9:09	The Hills Shire Council	Ivenco	Rear	AR97WK	Front Right	70.2	N
9:45	City of Ryde	Isuzu		CB46UN		70.2	Y
10:05	Parramatta City Council Depot V#101	Hino	Rear	BB46JJ	Front Right	70.4	N
11:28	Parramatta City Council Depot V#101	Hino	Rear	BH63QY	Bottom Centre	70.5	N
11:15	Ashfield Council	Hino	Front	BL54KN		70.7	Y
9:17	Canterbury City Council	Isuzu	Rear	BE24HY	Front Right	71.0	Y
9:53	Ku-ring-gai Council	Mitsubishi	Rear	YCP248	Front Left	71.0	Y
9:03	Remondis Australia Pty Ltd		Rear	YLN839	Front Right	71.5	N
11:53	Canterbury City Council	Isuzu	Rear	BE24HU	Front Right	71.5	N
8:45	Leichhardt Municipal Council		Rear	CI27XY		72.1	Y
9:30	Leichhardt Municipal Council	Hino	Rear	CD64NX		72.2	Y
11:08	Ashfield Council		Side	BB05GH		72.7	N
8:12	Lane Cove Council	Mitsubishi	Rear	URM137	Front Left	72.9	N
8:48	Enfield FrontLift		Front	CB18SE	Front Right	73.0	Y
8:48	Auburn Council	Isuzu	Rear	CF65GX	Bottom Right	73.3	N
9:22	J.J. Richards & Sons Pty Ltd	Ivenco	Rear	BN88CO	Front Right	74.0	Y
10:13	Enfield Bulk	Volvo	Rear	BL63SB	Front Right	74.0	N
10:54	J.J. Richards & Sons Pty Ltd	Ivenco	Rear	BR90UA		74.2	Y
9:59	The Hills Shire Council	Ivenco	Side	AR38AI	Front Right	74.9	Y
9:49	Enfield RearLift	Isuzu	rear	BH82RI	Front Right	75.0	Y
9:59	Enfield FrontLift		Front	CE39XP	Bottom Right	75.0	Y
9:11	Remondis Australia Pty Ltd		Rear	BT19EZ	Front Left	75.1	N
11:45	Remondis Australia Pty Ltd	Mercedes	Rear	CH50VI		75.1	N
9:21	Lane Cove Council	Ivenco	Side	URM468	Front Right	75.2	N
9:22	Canterbury City Council	Dennis	Side	BN30GB	Front Right	75.2	Y
9:23	Ashfield Council			CE19XX	Front Right	75.2	Y
9:32	Hornsby Council	Mitsubishi	Side	GG109	Front Right	75.2	Y
9:41	Leichhardt Municipal Council	Hino	Rear	CI23DH		75.2	N
9:49	Hornsby Council	Ivenco	Rear	CE54QB	Front Right	75.2	Y
9:32	Leichhardt Municipal Council	Hino	Rear	CA51HK		75.6	Y
11:00	Parramatta City Council Depot V#101	Isuzu	Rear	AP96TO	Front Left	75.8	Y
11:03	Remondis Australia Pty Ltd	Mercedes	Rear	CH99NJ		75.8	N
8:04	Remondis Australia Pty Ltd	Isuzu		MT2750	Front Right	76.0	N
8:09	Ku-ring-gai Council	Mitsubishi	Rear	AA43JJ	Front Left	76.0	N
9:14	Remondis Australia Pty Ltd	Mitsubishi	Rear	BM69KE	Front Left	76.0	N
11:08	Remondis Australia Pty Ltd	Mercedes	Front	AY73LY	Front Right	76.0	N
11:22	City of Ryde	Dennis	Rear	CE98GR	Front Left	76.1	Y
9:29	The Hills Shire Council	Iveco	Side	AR48AI	Front Right	76.2	Y
9:44	Leichhardt Municipal Council		Rear	BS30HM		76.2	Y
9:49	Canterbury City Council	Dennis	Rear	BP02LI	Front Right	76.2	Y
10:53	Lane Cove Council			URM450	Front Right	76.3	N
8:35	Burwood Council	Ivenco	Side	AW67CF	Front Right	76.5	Y
9:21	City of Canada Bay Council - Domest			CF33PN		76.7	Y
8:46	Hornsby Council	Ivenco	Side	AR36AI	Front Right	76.8	N
10:39	Auburn Council	Ivenco	Side	AY89AM	Front Right	76.8	N
8:23	Enfield FrontLift		Front	AR09AM	Back Right	77.0	Y
9:04	J.J. Richards & Sons Pty Ltd	Iveco	Front	CB51AC	Front Right	77.1	N
10:15	Canterbury City Council	Dennis	Side	BN56QO	Front Right	77.1	N
11:28	City of Ryde	Ivenco	Side	CD28PG	Front Right	77.1	N
8:01	Veolia	Isuzu	Rear	BD96ZZ	Front Right	77.2	N
10:41	Veolia	Isuzu	Rear	AZ13JG	Front Right	77.3	N
8:05	City of Ryde	Ivenco	Side	AK69BL	Front Right	77.5	N
9:33	The Hills Shire Council	Ivenco	Side	AR10LS	Front Right	77.5	Y
8:18	Ashfield Council	Ivenco	Side	BE48SD	Front Right	77.7	N
9:17	Canterbury City Council			BX79VE		77.7	Y
11:52	City of Ryde	Ivenco	Side	CD26PG	Front Right	77.7	N
10:44	Parramatta City Council Depot V#101	Isuzu	Rear	AQ97PD	Front Left	77.8	N
8:22	Strathfield Municipal Council	Hino	Side	BR68TD	Front Right	78.0	N
8:02	Auburn Council	Ivenco	Side	CE42GN	Front Right	78.2	N
10:28	Canterbury City Council	Dennis	Side	BN73GB	Front Right	78.2	N
10:33	Ku-ring-gai Council	Ivenco	Side	CGG4053	Front Right	78.3	N
11:38	City of Ryde	Ivenco	Side	CD29PG	Front Right	78.4	N
8:29	J.J. Richards & Sons Pty Ltd	Dennis	Rear	CD34SC	Front Right	78.5	N
8:37	City of Ryde	Dennis	Rear	CD85SC		78.5	Y
10:17	Enfield RearLift	Isuzu	Rear	BS98WE	Front Right	78.5	N

Time	Company	Make	Lift Type	Registration	Exhaust Location	L _A Max (dBA)	Impeded Movement
10:05	J.J. Richards & Sons Pty Ltd	Dennis	Rear	CE28CW	Front Right	78.7	N
11:35	The Hills Shire Council	Ivenco	Side	AP47PT	Front Right	78.7	N
9:44	The Hills Shire Council	Ivenco	Side	AR22LS	Front Right	78.8	N
10:48	Hornsby Council	Ivenco	Side	BE93DJ	Front Right	78.9	N
8:35	The Hills Shire Council	Ivenco	Side	BS48WI	Front Right	79.0	N
11:51	J.J. Richards & Sons Pty Ltd	Ivenco	Front	CI15WC		79.0	N
9:32	Canterbury City Council	Dennis	Side	BN31GB	Front Right	79.2	Y
10:11	Hornsby Council	Ivenco	Side	BE74KO	Front Right	79.2	N
10:36	Ku-ring-gai Council	Ivenco	Side	CGG4052	Front Right	79.2	Y
8:33	Burwood Council	Ivenco	Side	BF41VN	Front Right	79.5	N
10:35	Lane Cove Council	Ivenco	Side	BL49JB	Front Right	79.5	N
11:31	Hornsby Council	Ivenco	Side	BE57KP	Front Right	79.6	N
9:58	City of Canada Bay Council - Domestic	Ivenco	Side	CE57RY	Front Right	79.7	N
10:57	Lane Cove Council	Ivenco	Rear	URM020	Front Right	80.0	N
9:46	City of Canada Bay Council - Domestic	Ivenco	Side	CE65RY	Front Right	80.1	N
10:38	Hunter's Hill Council	Ivenco	Side	URM577	Front Right	80.1	N
11:37	Enfield FrontLift	Volvo	Front	BX77NO	Front Right	80.1	N
9:16	City of Canada Bay Council - Domestic	Dennis	Rear	CE72ZF		80.2	N
9:28	Enfield Bulk	Volvo	Truck	BY36TZ		80.2	N
9:29	Auburn Council	Ivenco	Rear	AY29JL	Front Right	80.2	Y
10:51	The Hills Shire Council	Ivenco	Side	ZKG100	Front Right	80.2	N
8:24	J.J. Richards & Sons Pty Ltd	Dennis	Rear	CH03VX		80.5	Y
10:18	Ku-ring-gai Council	Ivenco	Side	1EQQ706	Front Right	80.9	N
10:54	Hornsby Council	Ivenco	Side	BE73KP	Front Right	81.2	Y
9:37	The Hills Shire Council	Iveco	Side	AR49AI	Front Right	81.7	N
7:56	City of Ryde	Ivenco	Side	BI46EF	Front Right	81.9	N
11:29	Hornsby Council	Ivenco	Rear	BE15HT	Front Right	82.1	N
10:06	City of Canada Bay Council - Domestic	Ivenco	Side	BH14HJ	Front Right	82.4	N
10:46	Hunter's Hill Council	Ivenco	Side	URM393	Front Right	82.4	N
9:58	Ku-ring-gai Council	Ivenco	Side	CD82YN	Front Right	82.5	N
10:04	Hornsby Council	Ivenco	Side	BE21KN	Front Right	82.6	N
11:35	City of Ryde	Ivenco	Side	AK69BL	Front Right	82.6	N
10:59	Ku-ring-gai Council	Ivenco	Side	AA66JF	Front Right	83.4	N
8:28	J.J. Richards & Sons Pty Ltd	Ivenco	Rear	BR90UA		83.5	N
11:48	The Hills Shire Council	Ivenco	Side	AR09LS	Front Right	84.4	N
8:22	Auburn Council	Ivenco	Rear	AY29JL	Front Right	84.5	N
10:23	Remondis Australia Pty Ltd	Mercedes	Front	CE74GO		85.2	N
7:54	City of Ryde	Ivenco	Side	CD26PG	Front Right	85.5	N
9:54	Auburn Council	Ivenco	Side	AY75CT	Front Right	85.9	N

Measured Truck Movements

108

Total Truck Movements (17/08/2016)

317

Percent of truck movements measured (05/08/2015)

34.07 %

Total Impeded Truck Movements

35

Unimpeded Measurements

73

Total Small Truck Measurements

8



Appendix D – Show Cause Letter



Ms Ramona Bachu
NSW Environmental Officer
Veolia Environmental Services (Australia) Pty Ltd
Cnr Unwin and Shirley Streets
Rosehill NSW 2142

Contact: Julia Pope
Phone: (02) 9228 2068
Fax: (02) 9228 6355
Email: julia.pope@planning.nsw.gov.au

Dear Ms Bachu

Clyde Waste Transfer Terminal (DA 205-08-01 Mod 4)

I refer to Clyde's Annual Environmental Management Report (AEMR) dated March 2016 submitted under Condition 59 of the Development Consent (DA 205-08-01 Mod 4), and also to the Department's joint site inspection with the EPA on 15 June 2014.

The Department has reviewed the AEMR, and considered the inspection findings, including the additional information submitted in your email of 24 June 2016.

Six non-compliances have been identified, as follows:

1. Exceedance of annual waste limits for 2015 calendar year (Condition 10).

Condition 10 states:

"The Applicant shall ensure that no more than 500,000 tonnes per annum of waste is received at the development in any calendar year."

2. All monitoring and auditing results are not made publicly available (Condition 61)

Condition 61 states:

"The results of all monitoring and auditing required by the Consent must be made publicly available at the same time they are submitted to the Director-General."

3. Stormwater measures are not built in accordance with the approved Stormwater Management Plan, and the system does not minimise the pollution of waters (Condition 52).

Condition 52 states:

"The Stormwater Management Plan must describe the post construction measures to be employed to operate and maintain the stormwater controls at the premises in a manner that minimises the pollution of waters."

4. Loss of monitoring data over two periods (Condition 91).

Condition 91 states:

"A meteorological station must be sited and operated at the premises in accordance with the Approved Methods for the Sampling and Analysis of Air Pollutants in NSW. The Applicant shall undertake the sampling and analysis of the meteorological parameters specified in table below. Sampling and analysis of meteorological parameters shall be carried out strictly in accordance with the methods and references specified in the table"...

5. Vehicles turning right off Parramatta Road (Condition 119)

Condition 119 states:

"No vehicle entering the development shall turn right off Parramatta Road."

6. Not maintaining Community Consultative Committee (Condition 134)

Condition 134 states:

"The Applicant shall establish and maintain a Community Consultative Committee for the whole duration of the development"...

The purpose of this letter is to give you the opportunity to show cause as to why the Department should not take action in relation to the above non-compliances.

Representations should be received no later than close of business **5 August 2016**.

After consideration of any representations made by you, the Department will take the appropriate enforcement action in accordance with the Department's Compliance Policy, which can be accessed using this link:

<http://www.planning.nsw.gov.au/~media/Files/DPE/Plans-and-policies/compliance-and-enforcement-compliance-policy-2010-09-29.ashx>.

Should you have any queries on this matter, you may contact Senior Compliance Officer, Julia Pope on (02) 9228 2068 or email julia.pope@planning.nsw.gov.au.

Yours sincerely



Kirsty Ruddock 27/7/16
Director- Compliance and Post Approval



Appendix E – External Communications Procedure

PROCEDURE

NSW Communication with External Parties

Aim

The purpose of this procedure is to document the process for communication with relevant external parties in relation to Veolia activities and processes.

Legal & Other Requirements

WHS Act and Regulation 2011

Protection of the Environment Operations Act 1997 and supporting Regulations

National Self Insurers Model

Definitions

External Interested Party could be:

- An Environmental Authority (EPA);
- A Safety Authority (Safework);
- Ministry of Health;
- Roads and Maritime Services (RMS);
- Local government authorities (councils)
- Community;
- Stakeholders;
- Clients/customers; or
- Media.

SHEQ Group refers to NSW Safety Health Environment Quality Group.

Accountabilities & Responsibilities

Veolia NSW Site Management

It is the responsibility of Veolia NSW Site Management to ensure the process for communicating with external parties is followed and conveyed to relevant staff. The Site Manager may appoint an appropriate person(s) to administer this process. It is the responsibility of Veolia NSW personnel onsite, including relevant administration and managerial staff, to follow this procedure.

Operations

Operational staff should ensure that if specific communication from an external interested party relates to compliance issues not addressed in this procedure, then the NSW SHEQ group will be immediately informed.

Operational staff shall ensure that if communication from an external interested party is received, then the respective SHEQ group will be informed as soon as practical.

PROCEDURE**NSW Communication with External Parties**

NSW Divisional Management responsibilities for ensuring correct mechanisms for communications are implemented at their sites.

SHEQ Group

The respective SHEQ group in each state should ensure that Operational staff is informed as soon as practical of the receipt of a communication & that Operational Staff are supported in their responsibilities.

The respective SHEQ group in each state should ensure that information conveyed externally is factually correct. If needed, legal advice should be sought prior to communication.

Information Exchange Procedures

As Veolia NSW is part of a diverse business network, information exchange routes are documented in different areas of the National Integrated Management System for the different businesses units. This can include specific

- Client-Veolia Contracts / Customer Agreements / System Requirements
- Policies
- Site Management Plans
- Local Procedures.

The Veolia ANZ Workplace Health and Safety Policy (which is available publicly on the company website) makes a commitment to integrate best practice workplace health, safety, environment, and quality and community actions in Veolia operations. Veolia shall hence oblige to make such information available via the various types of communication to other parties, including regulatory authorities, suppliers, contractors and visitors.

Types of communication include:

1. Communication with Regulatory authorities
 - a. Notification of incidents
 - b. Authority fines, notices, summons for prosecution, or potential for further investigation;
 - c. Incidents and non-conformances with Veolia licenses/permits;
 - d. Community pollution complaints;
2. Communication with external parties including:
 - a. Notification of environmental incidents as a part of the pollution incident response management plan or other notification process.
 - b. Communication **including complaints from** external interested parties may also be a general email enquiry via the Veolia website www.veolia.com.au. All safety, health, environmental

PROCEDURE**NSW Communication with External Parties**

and quality issues, such as complaints are to be logged in the Rivo Incident Management System for corrective action.

3. Communication from other external parties
 - a. Media
 - b. Tenders incorporating Health Safety Environment and Quality questionnaire (e.g. number of environmental penalties/ Number of Injuries etc);
 - c. Exchange of information requested from external parties (including customers, suppliers)
 - d. Publications
 - e. Company performance (e.g. from stakeholders).
 - f. Operational queries (e.g. from customers, waste disposal, waste receipt);
4. Establishing communication with major clients and customers

PROCEDURE**NSW Communication with External Parties**

1. Communication with Regulatory Authorities**Receipt of Penalty Notice /Intimation of environmental risk and/or further authority communication from a regulatory body**

If a penalty notice or communication that intimates potential risk/further regulatory action is received from an environmental authority, the SHEQ group must be notified as soon as practical. Operations staff, with the support of the SHEQ group, is to investigate the matter as soon as practical & take the appropriate actions relevant to the communication. All documentation in relation to the communication must be retained with the appropriate unit. The respective SHEQ group should ensure that the occurrence is appropriately reviewed & followed-up.

All environmental penalty notices received must be logged onto the Incident Management System.

Pollution Complaints

If a pollution complaint is received from an external interested party, the complaint must be dealt with in a timely & professional manner. The incident should be logged onto the Incident Management System. Once a resolution to the complaint has been actioned, it should be communicated to the interested parties to preserve the integrity of the operation. Pollution Complaints may need to be notified as detailed below in Notification of Environmental Incidents.

Incidents

If an incident occurs or a non-conformance with a licence/permit is identified then the respective SHEQ group of the State, in consultation with Senior Management will communicate the details of the incident, including results of any investigation into the incident to the appropriate state or federal regulatory authority as well as any other interested parties (eg emergency services groups, eg Fire Brigade, Police). All incidents will be documented in the form of an Incident Report to the relevant interested party as well as the Veolia Incident Management System. Incident Reports are not to be distributed to any external parties, without consulting with Senior Management & the respective SHEQ group. Pollution Complaints may need to be notified as detailed below in Notification of Environmental Incidents.

Request for Further Information

If Veolia receives a notice requiring it to produce information (for example, a notice from the RMS or Safework requiring details to be provided), site management shall compile the necessary information, with help (if required) from the SHEQ team. If there is any doubt regarding what is required, site management will resolve this with the SHEQ team, with involvement from the Legal team if necessary. In all cases Veolia will respond to the request for information by or before the due date stated in the notice. The original notification and response are to be saved in the SHEQ Compliance division sites filing system.

PROCEDURE**NSW Communication with External Parties**

2. Notification of Environmental Incidents**Ref: Clause 98D Protection of the Environment Operations (General) Regulation 2012**

Each Veolia site within NSW maintains its own Emergency Response Plan. These plans have considered the variety of emergency situations likely to affect these facilities. This procedure is intended to provide an overview of our notification procedures for public authorities and general the public. This procedure will be published through the Veolia website www.veolia.com.au. If you wish to obtain further information, please contact the Health Safety Environment and Quality Team through the NSW state office on 132 995.

Each of our facilities with Environmental Protection Licenses (EPL) have specific plans for responding to environmental incidents and contacting relevant authorities and neighbours. These plans are developed with reference to the requirements of AS3745:2010 "Planning for emergencies in facilities", and the Pollution Incident Response Management Plan requirements under the NSW Protection of the Environment Operations Act and Regulations.

The facilities are listed below:

- Clyde Transfer Terminal (EPL 11763)
- Woodlawn Bio Reactor (EPL 11436)
- Crisps Creek Intermodal Facility (EPL 11455)
- Greenacre Resource Recovery Facility (EPL 3070)
- Port Botany Resource Recovery Facility (EPL 6179)
- Horsley Park Landfill Facility (EPL 11584)
- Hunter Depot (EPL 13212)
- Veolia NSW Transport Licence (EPL 12022)

The procedure for notification following an incident at these sites is as follows:

1. First response to an environmental incident. Assess the risk of the incident and determine whether it can be controlled onsite using emergency response equipment (e.g. fire extinguishers, fire hoses, spill kits etc.) Each incident type will have its own response requirements as discussed in the site Emergency Response Plan.
2. If possible, use the emergency response equipment onsite and manage the incident.
3. If the incident cannot be controlled by site personnel or if the incident has the potential to cause harm to humans, property or the environment, site management will contact the relevant authorities immediately. Contact details for each site are available in the contact list of the site Emergency Response Plan:
 - Environmental Protection Authority
 - Safework NSW

PROCEDURE

NSW Communication with External Parties

- Local Government / Council
- NSW Fire and Rescue
- NSW Police
- NSW Health

4. Additionally, if there is potential harm to neighboring properties, site management will contact them via telephone on the numbers listed in the site Emergency Response Plan. Further updates will be provided by telephone or other agreed arrangement.

Please refer to the table below for the contact details of local and state authorities for the respective Environmental Protection Licensed facilities or activities.

Contact numbers for local and state authorities.					
Facility / Activity	Safework	EPA Pollution Line	Local Government	NSW Health Public Health Unit	Emergency Services
Clyde Transfer Terminal (EPL 11763)	13 10 50	131 555	Auburn City Council 9735 1222	Western Sydney 9845 9900	000
Woodlawn Bio Reactor (EPL 11436)	13 10 50	131 555	Goulburn-Mulwaree Council 4823 4444	Goulburn 4824 1840	000
Crisps Creek Intermodal Facility (EPL 11455)	13 10 50	131 555	Goulburn-Mulwaree Council 4823 4444	Goulburn 4824 1840	000
Greenacre Resource Recovery Facility (EPL 3070)	13 10 50	131 555	Bankstown City Council 9707 9999	South Sydney West 9515 9420	000
Port Botany Resource Recovery Facility (EPL 6179)	13 10 50	131 555	Randwick Council 9399 0999	South Sydney East 9382 8333	000
Horsley Park Landfill Facility (EPL 11584)	13 10 50	131 555	Fairfield City Council 9725 0222	South Sydney West 9515 9420	000
Hunter Depot (EPL 13212)	13 10 50	131 555	City of Lake Macquarie Council 4921 0333	Hunter New England 6764 8000	000
Veolia NSW Transport Licence (EPL 12022)	13 10 50	131 555	-	-	000

PROCEDURE**NSW Communication with External Parties**

3. Communication with Other External Contacts**Media**

Where the media is involved, a nominated responsible Manager and/or a member of the Senior Management team will coordinate contact with the media. The NSW Crisis Management Plan PLA-NSW-000-005 will be followed for significant incidents and media involvement.

Operational Queries

For any operational queries relating to significant environmental aspects, the particular operational division will first be contacted. If needed, the respective SHEQ group of the State will be involved.

Tenders

For all commercial tenders requiring information on SHEQ information, then the SHEQ group will provide the necessary information, which may also be documented in the National Integrated Management System (NIMS) through relevant Quality, Safety and Environment Management Plans, QSEMP, PRO-COL-000-024 Environment Improvement Programs etc).

The information required to be supplied by Veolia and information that is to be supplied by the Client to Veolia for major contracts will typically be found within the Contract as to ensure specifics contract requirements are documented.

Customers/ Suppliers

For all new Veolia customers (unless customers have come through the tender process) the following information shall be exchanged:

- Conduct NSW Sales and Hazard Identification checklist
- Establish conditions for site establishment, entry & training based on the risk associated with the site
- Identify relevant SDS's / Site Hazards (as identified through the risk register)
- Arrange for site task risk assessment
- Establish reporting, billing, communication mechanisms
- Set up regular meetings
- Establish correct Licence disposal facilities for waste

For all Veolia Suppliers the following information shall be exchanged

- Information pertaining to Pre-selection criteria outlined in the Veolia Pre-selection Questionnaire PRO-COL-000-056
- Commercial criteria (such as communication & payment methods)

PROCEDURE**NSW Communication with External Parties**

- Veolia defined information required from suppliers (e.g. safety alerts updates to Australian standards for products or services supplied & commercial updates)

Publications

Overall company performance is documented in corporate publications, including promotional & advertising material e.g. Veolia Environment Report, Veolia Sustainable Development Report, as well as the parent company environmental publications, e.g. Veolia Environment Report. These publications & brochures are available for dissemination to interested parties.

Internal Audits

Internal environmental audits are not to be distributed to interested parties, without first consulting with Senior Management and the respective SHEQ group of the State.

PROCEDURE**NSW Communication with External Parties**

4. Establishing Communication with Major Clients & Customers

The objective is to outline the process for establishing communication between Veolia and its Major Clients and Customers (particularly Industrial Services Clients), so that legislative requirements and those outlined within the National Self Insurers Model are met and relevant health and safety information is exchanged.

Communication of Contracting Process

This procedure outlines the steps for the communication and engagement process and the key requirements of contractors operating onsite. Prior to the initial agreement and subsequent contract renewal, Major Clients and Veolia NSW (where Veolia provides the client with products and/or services and is a contractor onsite) are required to communicate and exchange any necessary WHS&E documentation or legal information that may affect onsite activity or the safety and wellbeing of workers.

This may include through mechanisms such as:

- Contractor meetings
- Client/Veolia/SUB-Contractor SHEQ Forums
- Safety Alerts issued by both parties/external
- Site Management Meetings
- Monthly reporting mechanisms
- Work Quality Pack- Customer feedback groups
- Communication/consultation with Veolia Staff
- Audits/Inspections
- Incident Reporting & sharing lessons learnt
- Management of Subcontractors
- Pre/post Shutdown meetings.
- Other arrangements as stipulated within the Veolia/Client Contract

Review Contractor WHS Performance

Veolia will establish processes for reviewing contracted activities as work is being undertaken, and upon completion of projects and prior to renewing contracts for ongoing services. Outcomes of the review process shall be captured and used in the planning of subsequent contracts.

This process may be a formalised process for large or ongoing contracts, but may be part of the authority to work sign-off process, or site egress process for small jobs. For capital projects the review will typically take place upon completion or at project milestones. For ongoing service contracts, a schedule of monthly, quarterly and annual reviews is typical.

PROCEDURE

NSW Communication with External Parties

New Policies and Procedures

The document authoriser shall determine whether any new divisional policy or procedure is applicable to Contractors

Class 1 and/or 2 and/or 3 and then uploads the documents onto the Site Contractors Document System.

Accessing Divisional Documents from clients

When a Veolia is initially approved as an Approved Site Contractor they should determine the appropriate process is in place to obtain relevant policies and procedures from the client. For example, at BSL, new contractors are issued with a user name and password to access the Site Contractors Document System (CDS). BlueScope Steel uses the CDS for the distribution of all updates to divisional policies and procedures to Approved Site Contractors. This system enables contractors to view the latest version of our policies and procedures applicable to their class. It is the responsibility of the Divisional Document Controller to update the internet site each month and to notify the Approved Site Contractors via an email that lists all policies and procedures that have been amended over the past month.

General contractor requirements

Veolia Managing Contractors in the Workplace (PRO-COL-000-023) states "Where applicable, copies of Veolia' written working procedures should be given to the contractor. Where relevant, copies of the contractor's written procedures should be requested, especially if the work is hazardous. As well as ensuring that long-term contractors are conversant with all relevant working procedures, it is important that their input is sought when procedures that relate to their work have to be developed."

All contractors engaged to carry out work on behalf of Veolia (including a Veolia work site or Veolia client work site) are responsible for ensuring that they, their employees, and any contractors they engage are familiar with Veolia' site safety and environmental requirements, and comply with them at all times.

Contractors must ensure that all site activities are carried out in a manner that minimises the risk of harm to any person and the environment, and comply with all applicable legislative requirements.

Customer and contractor personnel must be deemed competent by their employers for the tasks they will be carrying out on the site, and where appropriate hold current licences or certificates.

Where the contract work is carried out on a Veolia client site, the contractor must ensure that all clients' site requirements are understood and complied with by all contractor personnel. Scavenging of waste is not permitted on any site.

End of Procedure