



**VEOLIA (AUSTRALIA) PTY LTD**

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**Clyde Waste Transfer Terminal**

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**Odour Audit XXXIX**

**Final Report**

**June 2022**

**THE ODOUR UNIT PTY LTD**

ABN 53 091 165 061  
ACN 091 165 061

Level 3, Suite 12  
56 Church Avenue  
MASCOT, NSW 2020  
P: +61 2 9209 4420

**THE ODOUR UNIT (QLD) PTY LTD**

ABN 87 102 255 765  
ACN 102 255 765

2/57 Neumann Rd  
CAPALABA, QLD 4157  
P: +61 7 3245 1700  
F: +61 7 3245 1800

E: [info@odourunit.com.au](mailto:info@odourunit.com.au)

W: [www.odourunit.com.au](http://www.odourunit.com.au)

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**Project Number:** N1473L

Report Revision		
Revision Number	Date	Description
Initial Draft Report	28.07.2022	Pending documentation from Client
Draft Report	27.10.2022	Draft report issued to the Client
Final Report	27.11.2022	Final report issued to the Client
Report Preparation		
Report Prepared By:	Approved By:	
		
Isaac Farrugia B. Eng (Chem) Consultant Engineer	Michael Assal MEngSc, B. Eng (Hon)/B. Sc., AMIChemE, MIEAust, CAQP Operations Manager	
Report Title: Veolia (Australia) Pty Ltd Clyde Waste Transfer Terminal – Odour Audit XXXXX		

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### LIST OF ABBREVIATIONS AND DEFINITIONS

<b>FAOA</b>	Field Ambient Odour Assessment
<b>HCS</b>	Hydrometric Consulting Services
<b>the Draft OEMP</b>	The draft version of the <i>Operational Environmental Management Plan</i> dated 6 November 2020
<b>the February 2010 OMP</b>	Odour Management Plan dated February 2010
<b>the Odour Audit</b>	Odour Audit XXXIX covering the six months between 25 November 2021 and 8 June 2022
<b>the September 2017 Container Preparation Document</b>	Waste container preparation requirements for the Site
<b>the September 2017 NSW RR Container Document</b>	<i>NSW Resource Recovery – Container Maintenance</i> dated 15 September 2017
<b>the Site</b>	Veolia Clyde Transfer Terminal
<b>TOU</b>	The Odour Unit Pty Ltd
<b>TTB</b>	Transfer Terminal Building
<b>Veolia</b>	Veolia (Australia) Pty Ltd

### UNITS OF MEASUREMENTS

<b>°C</b>	degrees Celsius
<b>m/s</b>	metres per second

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# 1 INTRODUCTION

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The Odour Unit Pty Ltd (**TOU**) was commissioned by Veolia (Australia) Pty Ltd (**Veolia**) to undertake the thirty-ninth (**XXXIX**) Odour Audit at the Clyde Transfer Terminal (the **Site**). The visit was undertaken on 8 June 2022 and is part of an on-going six-monthly odour audit surveillance program that has been completed since the commissioning of the forced air extraction system at the Site.

## 1.1 ODOUR AUDIT PERIOD

Odour Audit XXXIX covers the period between 25 November 2022 and 8 June 2022 (the **Odour Audit**).

## 1.2 ODOUR AUDIT REQUIREMENTS

The Odour Audit requirements originate from the *Conditions of Consent – 48(f)* and are outlined as follows:

*“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 odour audits, Odour Audit XXXIX 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. Specifically, the Odour Audit approach included:

- A general inspection and smoke testing of the transfer building;
- The inspection of the container packing area and site access roads;
- The examination of the complaint register;
- The review of the on-site meteorological data log and equipment maintenance/calibration;
- The analysis of relevant documentation relating to odour management; and
- The undertaking of an off-site downwind Field Ambient Odour Assessment (**FAOA**) survey.

### 1.3 PREVAILING WEATHER CONDITIONS

At the time of the Odour Audit visit, the prevailing weather conditions were light (1.0 – 3.0 metres per second (**m/s**)) wind speeds with the local wind direction blowing predominantly from the northwest. The skies were clear and the ambient temperature during the Odour Audit visit was between 13 and 18 degrees Celsius (**°C**) during the Odour Audit visit. No rainfall was observed during the Odour Audit visit.



## 2 ODOUR AUDIT FINDINGS

### 2.1 ASSESSMENT OF GENERAL HOUSEKEEPING

#### 2.1.1 Transfer Terminal Building

During the Odour Audit visit, there were approximately 130-160 tonnes of waste on the floor. This tonnage is within the normal operating 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 found during several truck-unloading sequences. It was also observed that the TTB'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** – TTB waste on-floor as found on 8 June 2022 (during a smoke test)

#### 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. Like 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 (refer to **Appendix B** for FAOA results). TOU was advised by a Veolia personnel that one of the two compactors

were in operation at the time of the Odour Audit visit. The general housekeeping 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.

### **2.1.2.1 Container Management and Maintenance**

Based on previous verbal discussions with the Veolia team and observations made during the visit, the Odour Audit finds that Veolia continues to implement the policies and procedures as outlined in the following documents:

- The container management and maintenance procedures titled *NSW Resource Recovery – Container Maintenance* dated 15 September 2017 (the **September 2017 NSW RR Container Document**), which details the following:
  - The design of the containers;
  - The maintenance and management of the activated carbon filter retrofitted to the containers;
  - The container management procedure; and
  - The container maintenance procedure.
- The waste container preparation requirements for the Site (the **September 2017 Container Preparation Document**), which details the following:
  - The inspections and actions to be undertaken by operators to enable containers to be prepared to an acceptable standard;
  - The steps to be undertaken should a damaged container be identified; and
  - The steps to be undertaken should a leaking container be identified.

### **2.1.3 Odour Management Plan**

As per the Odour Management Plan dated February 2010 (the **February 2010 OMP**) for the Site, following the compaction of waste, all filled containers are entirely sealed and remain so while at the Site. All containers used are required to be in good condition, and unused/returned containers adequately clean. The Odour Audit finds that this continues to be current practice at the Site. A view of the condition of the container area as found on 8 June 2022 is shown in **Photo 2.2**.





**Photo 2.2** – A view of the container area as found on 8 June 2022

#### **2.1.4 Odour Extraction System Maintenance**

The service documentation for the maintenance of the odour extraction system was supplied and reviewed as part of the Odour Audit (refer to **Appendix A**). The service logs were provided covering the period between November 2021 to May 2022.

Each service log provided to the Odour Audit indicated that the required inspection and maintenance works were taking place by a suitable service contractor, and the odour extraction system overall was operating efficiently. The service logs during this period noted that all the necessary support works such as checking the fan belts and unit operations, greasing bearings, component replacement, and other routine preventative maintenance works were being inspected and undertaken. It is noted that the variable speed drive (**VSD**) on Fan 2 experienced an earth fault on 14 April 2021. This was rectified on 21 April 2022.

Given the above and based on the positive results obtained for the smoke testing, odour complaints register, and the FAOA survey conducted as part of the Odour Audit visit, it appears that the current operation of the odour extraction system is satisfactory.

#### **2.1.5 Odour Management Procedures/Plan**

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

Veolia has advised The Odour Audit that the February 2010 OMP is still in the process of being reviewed and updated. However, TOU was provided a copy of the draft

*Operational Environmental Management Plan* for the Site dated 6 November 2020 (the **Draft OEMP**). Upon finalisation of the Draft OEMP and consolidation of all referenced documents, the Odour Audit will review this document in its entirety. Nevertheless, the annual review and commitment to continuous improvement to the operational and environmental management procedures and practices at the Site is endorsed by the Odour Audit.

### **2.1.6 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 around the TTB. 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 off-site. The louvres on the end walls of the TTB were observed to be permanently shut.

### **2.1.7 Truck Entrance Plastic Strips**

The truck entrance plastic strips of the TTB, used to reduce odour escaping through the opening, were found to be intact and in good condition (refer to **Photo 2.3**).

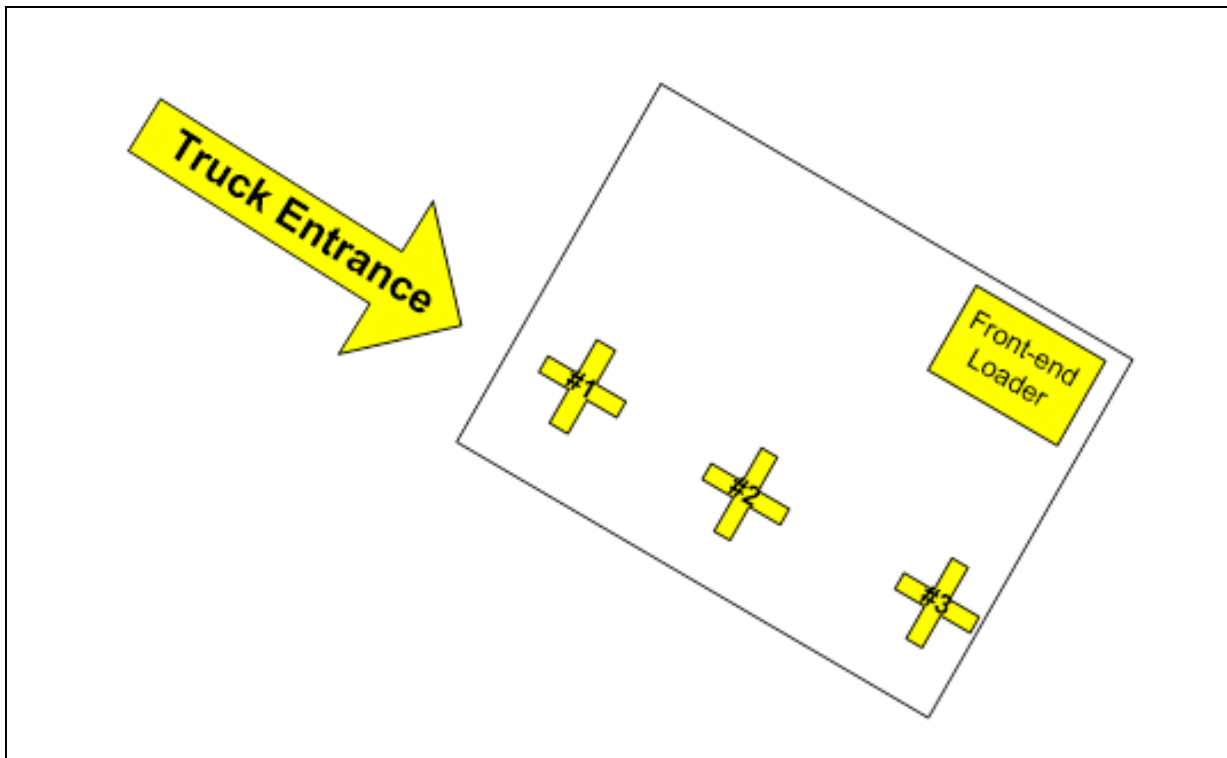


**Photo 2.3** – A view of the truck entrance plastic strips as found on 8 June 2022

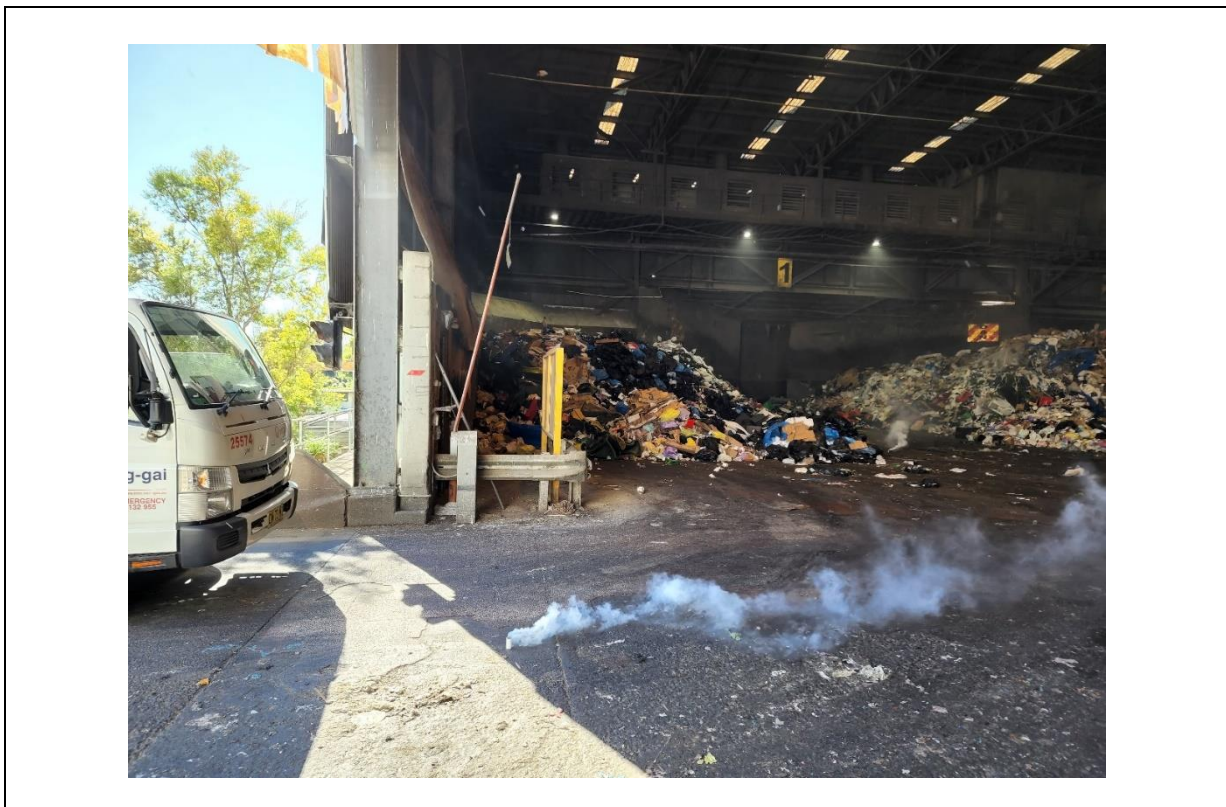
### **2.1.8 Smoke Testing**

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. As per previous audits, smoke was released from within the TTB at three points within the TTB. **Figure 2.1** shows the three points where the smoke was released within the TTB. **Photo 2.4** shows smoke testing

at the truck entrance of the TTB, which reflects an additional test location to the normal smoke testing release points shown in **Figure 2.1**.



**Figure 2.1** – Smoke testing release points within the TTB on 8 June 2022



**Photo 2.4** – A view of the truck entrance plastic strips during smoke testing on 8 June 2022



### 2.1.8.1 Smoke Testing Results

#### **Smoke Testing Point #1**

The smoke released at this point initially rose gradually, 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**

The smoke released at this point initially moved similarly to smoke testing point #1, but the flow pattern changed such that it moved away from the extraction system at ground level. As it travelled to the truck entrance-side wall, the smoke began to rise towards the roof and then towards the extraction system.

#### **Smoke Testing Point #3**

The smoke released at this point revealed a similar result to that documented for smoke testing point #1.

## 2.2 ODOUR COMPLAINTS HANDLING AND METEOROLOGICAL DATA

### 2.2.1 **Odour Complaints Handling**

As advised by Veolia personnel, there have been no complaints recorded in the Site's complaints register since March 2012.

### 2.2.2 **Meteorological Data**

The meteorological data provided to the Odour Audit, covering the period of between November 2021 and June 2022, was inspected and found to be in good order. As found in previous Odour Audits, the observations were provided in daily 15-minute intervals and included all parameters necessary to develop a meteorological dataset for odour dispersion modelling.

As indicated via service records completed 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 periodically for insects and trimming of nearby vegetation as required to ensure no overgrowth immediately around the weather station pole. Overall, HCS indicated that the weather stations were operating well, and any identified issues were rectified. 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 8 June 2022 between 1155 hrs and 1253 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 upwind and downwind locations of the TTB.

The assessors spent approximately five minutes at each assessment location 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.

<b>Table 2.1 – VDI 3882 Odour Intensity Categories</b>		
<b>Odour Strength</b>	<b>Intensity Rank (code)</b>	<b>TOU Interpretation (meaning)</b>
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 distinct and easily characterised
Strong	4	Strong odour detectable
Very Strong	5	If offensive, the observer may consider moving from the area
Extremely Strong	6	Odour is sufficiently over-powering that assessor moves from the area

### **2.3.1 Field Ambient Odour Assessment - Results**

The results of the FAOA survey conducted during the Odour Audit found that whilst intermittent odours were detected on-site, no odours were detectable off-site that could be linked back to the Site and its activities. This is a good outcome and reflects the

findings from previous odour audits. The field log sheets, and visual survey plot are appended as **Appendix C**.



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## 3 RECOMMENDATIONS/FOLLOW-UP ACTIONS

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### 3.1 PREVIOUS AUDIT ACTIONS

The following list provides an outline of the last November 2021 odour audit actions and status as of the Odour Audit:

- **Previous Audit Action 1:** *Action 1 – Continue with the on-going review and commitment to continuous improvement of the Draft OEMP and referenced documents.*
- **Status:** On-going and will be reassessed in the next odour audit.

### 3.2 TRANSFER TERMINAL BUILDING

All metal plates were found to be intact and in good condition around the TTB. 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 off-site. The louvres 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 the Odour Audit, the following action is recommended:

- **No further action is required at this stage.**

### 3.3 COMPACTOR AREA

The general housekeeping around the compactor 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 is recommended:

- **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 November 2021 odour audit have been adequately undertaken, and the odour extraction system is operating in a satisfactory condition.

Based on the findings in the Odour Audit, the following action is recommended:

- **No further action is required at this stage.**

### 3.5 WEATHER STATION

The dataset obtained from the weather station was found to be adequate. Moreover, the calibration and service reports from HCS indicate that all maintenance to the weather station and required calibrations were carried out as needed.

Based on the findings in the Odour Audit, the following action is recommended:

- **No further action is required at this stage.**

### **3.6 OFF-SITE ODOUR IMPACTS**

The results of the FAOA survey conducted during the Odour Audit found that no odours were detectable off-site that could be linked back to the Site and its activities.

Based on the findings in the Odour Audit, the following action is recommended:

- **No further action is required at this stage.**

### **3.7 ODOUR MANAGEMENT PROCEDURES/PLAN**

At the timing of the writing of the Odour Audit, the February 2010 OMP was last updated over eight years ago. Given the previous update, it is suggested that as part of good practice that Veolia reviews and update the February 2010 OMP to ensure it continues to reflect the odour management procedures implemented and followed at the Site. TOU was provided a copy of the Draft OEMP. Upon finalisation of the Draft OEMP and consolidation of all referenced documents, the Odour Audit will review this document in its entirety. Nevertheless, the annual review and commitment to continuous improvement to the operational and environmental management procedures and practices at the Site is endorsed by the Odour Audit.

Based on the findings in this Odour Audit, the following action/s is recommended:

- **Action 1 – Continue with the on-going review and commitment to continuous improvement of the Draft OEMP and referenced documents.**

### **3.8 CONCLUDING REMARK**

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

The next Odour Audit is due in **December 2022**.



**VEOLIA (AUSTRALIA) PTY LTD**

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**Clyde Waste Transfer Terminal**

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**Odour Audit XXXIX**

**Appendices**

**June 2022**



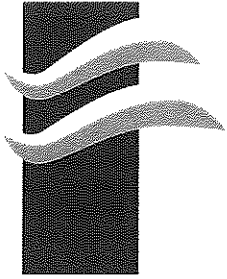
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**APPENDIX A:**

**ODOUR EXTRACTION SYSTEM SERVICE REPORTS**

**(NOVEMBER 2021 – MAY 2022)**

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# Independent Air Flow Services



Accredited by the National Association of Testing Authorities No. 3098

A.B.N. 55 066 984 610

PO Box 4469, North Rocks NSW 2151

Telephone: 1300 004 237

Mobile: 0488 400 072

E-mail: [independentairflow@optusnet.com](mailto:independentairflow@optusnet.com)

Web Address: [www.independentairflow.com.au](http://www.independentairflow.com.au)

Accredited for compliance with ISO/IEC 17025- Testing

The results of the tests, calibrations and / or measurements included in this document  
are traceable to Australian / National Standards

NATA is a signatory to the APLAC mutual recognition arrangement for the mutual  
recognition of the equivalence of testing, calibration and inspection of reports

Accreditation No: **3098**

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## TEST REPORT

**DATE:** 07/12/2021

**LOCATION:** EAF 1 & 2 | Disposal Shed

Clyde Transport Terminal (Veolia) | 321 Parramatta Road, AUBURN NSW

**CLIENT:** Equilibrium Air Conditioning

**ADDRESS:** Unit 7, 38 Brookhollow Avenue

NORWEST NSW

**POST CODE:** 2153

**CONTACT:** Steve Seretis

**PHONE NO:** (02) 9439 4822

**CERTIFICATE NO:** SA1164/21

**Clyde Transport Terminal (Veolia)**

**EAF 1 & 2 | Disposal Shed**

EQUIPMENT	SERIAL NUMBERS	CALIBRATION DUE
Anemometer	T57251629007	May 2022
Manometer	T58252127011	August 2022

TEST METHOD	TEST DESCRIPTION	TEST REQUIREMENT	PAGE	RESULTS	PASS/FAIL
AS/NZS14644.3 (Clause B.4.3.2)	Supply Airflow Rate Calculate from Exhaust Face Velocity	N/A	Page 6	23 Air Changes Per Hour	RECORDED


**REMARKS AND RECOMMENDATIONS**

**Access to Exhaust Grilles Via Outside Stair Cases**

**Extraction Fan 1 & 2 Motor Make HG | Motor Frame Y315S**

Tested By: A. Wuang

Recommended Next Test: December 2022

Checked/Accredited Signatory:   
D. Hazell

Date of Issue: 13/12/2021

Clyde Transport Terminal (Veolia) Signatory \_\_\_\_\_

Certificate No: SA1164/21

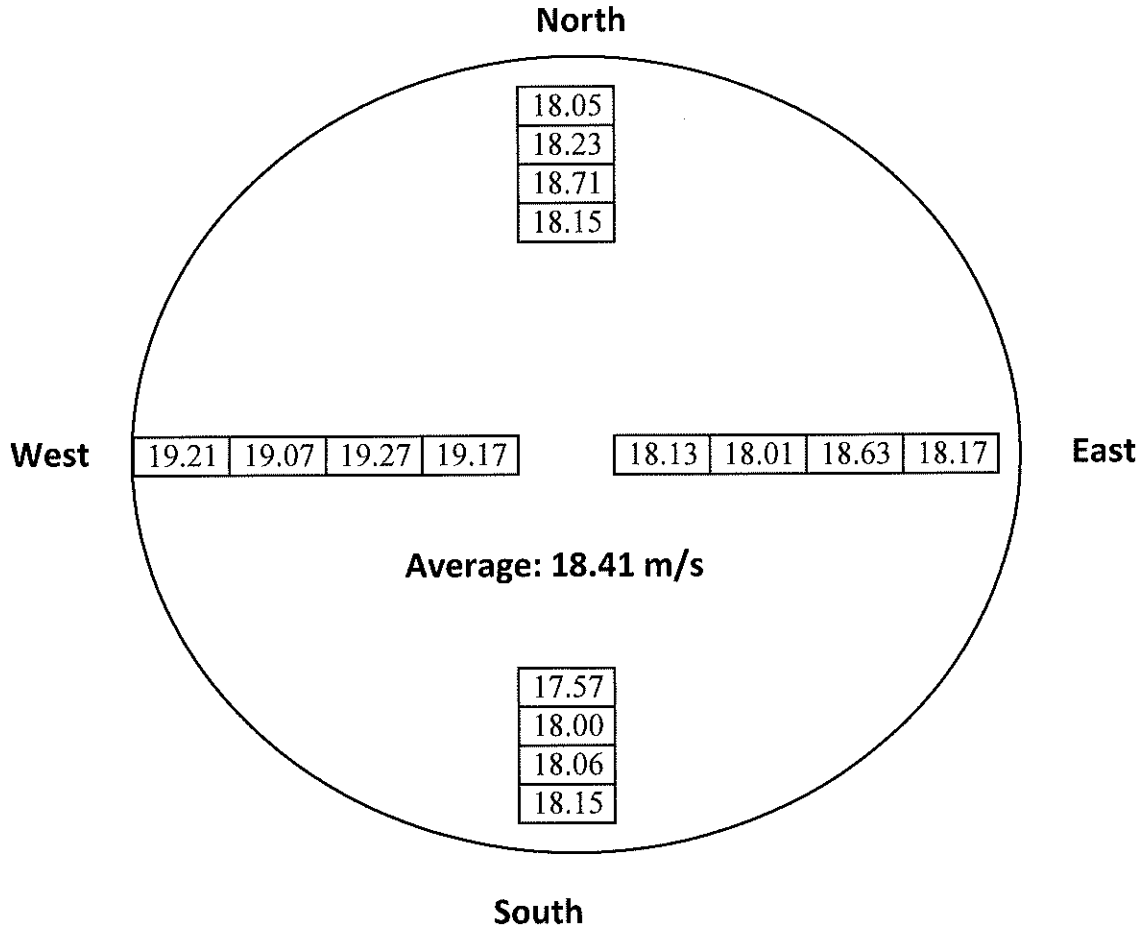


Clyde Transport Terminal (Veolia)

Exhaust Stack

AIR VELOCITY

SUPPLY AIRFLOW VELOCITY (Clause B.2.2.2)



All readings in meter per second - m/s

Correction Factors (Already Applied)

>5.01	0.00
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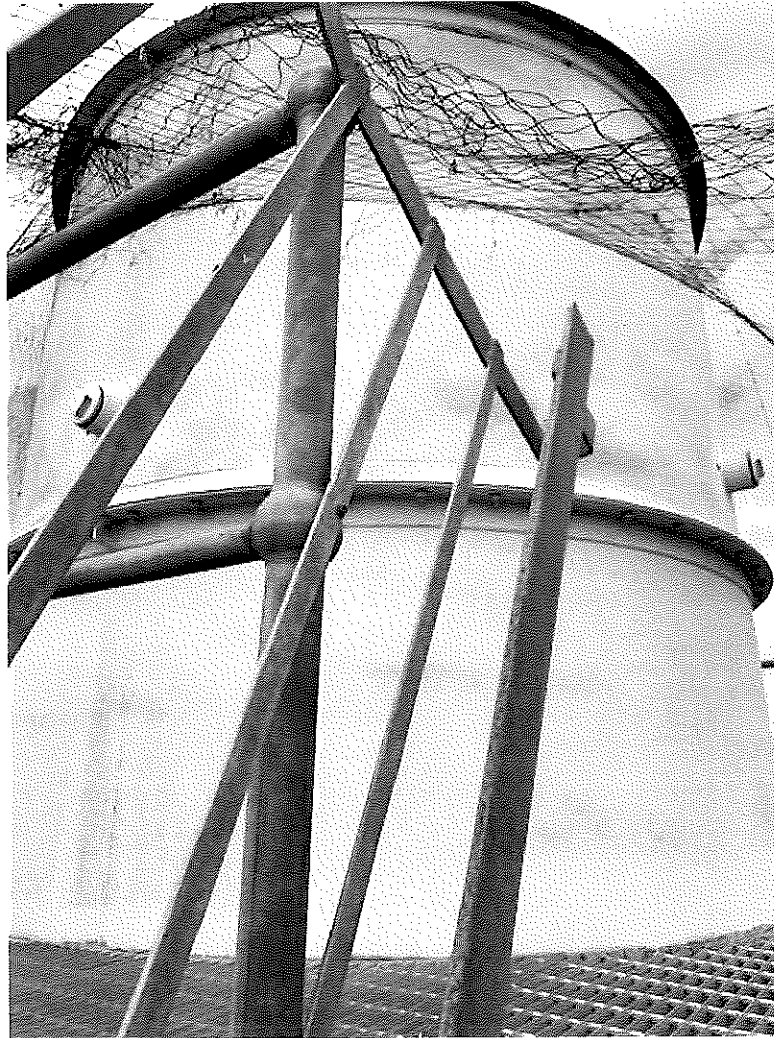
All Velocities recorded at a distance of aprox 150 mm from Exhaust Grille Face

Certificate No: SA1164/21

**Clyde Transport Terminal (Veolia)**

**Exhaust Stack**

**PHOTO - NOT TO SCALE**



Certificate No: SA1164/21

# Clyde Transport Terminal (Veolia)

## Western Side | Exhaust Grilles

### AIR VELOCITY

#### SUPPLY AIRFLOW VELOCITY *(Clause B.2.2.2)*

##### Exhaust Grille 1

4.75	4.89	AVG: 4.51
4.23	4.15	

##### Exhaust Grille 2

4.50	4.44	AVG: 4.38
4.31	4.25	

##### Exhaust Grille 3

4.95	4.58	AVG: 4.78
5.29	4.30	

##### Exhaust Grille 4

5.78	5.07	AVG: 5.46
5.70	5.30	

##### Exhaust Grille 5

6.80	6.13	AVG: 5.71
4.89	5.01	

##### Exhaust Grille 6

7.89	6.27	AVG: 7.06
6.78	7.31	

##### Exhaust Grille 7

6.87	7.00	AVG: 7.23
7.20	7.85	

##### Exhaust Grille 8

8.57	8.88	AVG: 9.06
10.03	8.75	

All readings in meter per second - m/s

Correction Factors (Already Applied)

3.99	0.01
5.01	0.00

All Velocities recorded at a distance of aprox 150 mm from Exhaust Grille Face

Certificate No: SA1164/21

## Clyde Transport Terminal (Veolia)

### Eastern Side | Exhaust Grilles

#### AIR VELOCITY

#### SUPPLY AIRFLOW VELOCITY (Clause B.2.2.2)

##### Exhaust Grille 9

9.01	9.15	AVG: 8.71
8.11	8.57	

##### Exhaust Grille 10

9.13	7.87	AVG: 8.61
7.90	9.53	

##### Exhaust Grille 11

11.15	9.23	AVG: 10.19
10.15	10.21	

##### Exhaust Grille 12

11.31	9.37	AVG: 10.34
10.18	10.51	

##### Exhaust Grille 13

10.16	7.55	AVG: 9.24
10.32	8.91	

##### Exhaust Grille 14

7.71	8.01	AVG: 7.76
7.57	7.73	

##### Exhaust Grille 15

7.65	7.09	AVG: 7.70
8.28	7.78	

All readings in meter per second - m/s

Correction Factors (Already Applied)

>5.01	0.00
-------	------

All Velocities recorded at a distance of aprox 150 mm from Exhaust Grille Face

Certificate No: SA1164/21

## Clyde Transport Terminal (Veolia)

### EAF 1 & 2 | Disposal Shed

Test Method: AS ISO14644.3 Method B.2(Clause B.2.3.2) - Air Change Rate

#### TOTAL AIR QUANTITIES

*Air Quantity is determined thus : Average Velocities x Face Area x  $3.6 \times 10^3$*

Exhaust Grille	Face Area Calculation	Face Area m <sup>2</sup>	Average Velocity m/s	Air Quantity m <sup>3</sup> /h
1	1.200 x 1.200	1.440	4.51	23379.84
2	1.200 x 1.200	1.440	4.38	22705.92
3	1.200 x 1.200	1.440	4.78	24779.52
4	1.200 x 1.200	1.440	5.46	28304.64
5	1.200 x 1.200	1.440	5.71	29600.64
6	1.200 x 1.200	1.440	7.06	36599.04
7	1.200 x 1.200	1.440	7.23	37480.32
8	1.200 x 1.200	1.440	9.06	46967.04
9	1.200 x 1.200	1.440	8.71	45152.64
10	1.200 x 1.200	1.440	8.61	44634.24
11	1.200 x 1.200	1.440	10.19	52824.96
12	1.200 x 1.200	1.440	10.34	53602.56
13	1.200 x 1.200	1.440	9.24	47900.16
14	1.200 x 1.200	1.440	7.76	40227.84
15	1.200 x 1.200	1.440	7.70	39916.80
Total Air Quantity				574076.16

#### AIR CHANGES PER HOUR

*Air Changes per Hour = Air Quantity divide by Room Volume*

Room	Air Quantity m <sup>3</sup> /h	Volume m <sup>3</sup>	Air Changes Per Hour	*PASS / FAIL
Disposal Shed	574076.16	24558.00	23	RECORDED

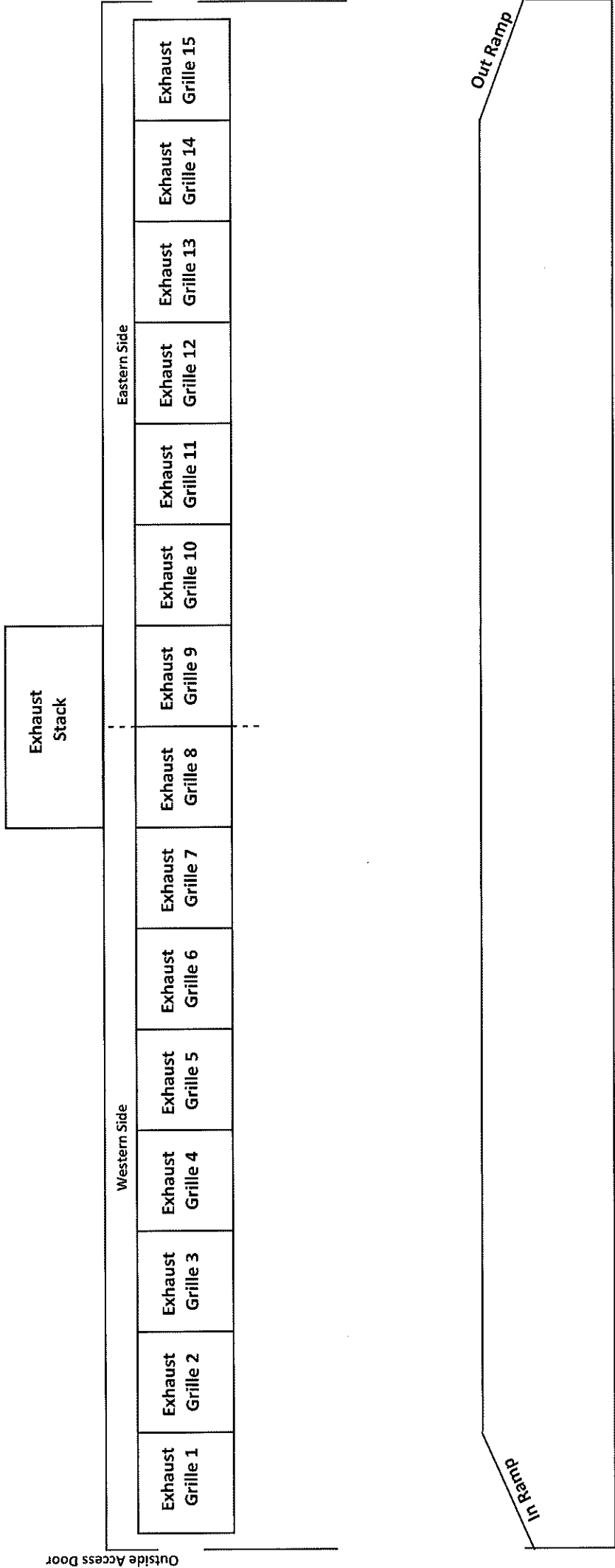
\* **Requirement:** Clyde Transport Terminal (Veolia) Set Recorded Air Changes Per Hour

IF APPLICABLE ALL SCREENS REMOVED FOR FACE AREA CALCULATIONS

Face Area Calculation and Room Volume completed using Tape Measure Serial No: SA01

Certificate No: SA1164/21

Clyde Transport Terminal (Veolia)  
EAF 1 & 2 | Disposal Shed





**Clyde Transport Terminal (Veolia)**

**EAF 1 & 2 | Disposal Shed**

**PHOTO - NOT TO SCALE**

**Western Side**



**Eastern Side**



Certificate No: SA1164/21

# Equilibrium Air Conditioning Services Pty Ltd

ABN 51 844 035 531

Telephone: (02) 9439 4822

[service@eqac.com.au](mailto:service@eqac.com.au)

PO Box 7996

Norwest NSW 2153



## CUSTOMER JOB NO. 32200 - Steve Hortis

**Project Name** Monthly Maintenance

**Date Created** 03/11/2021

**PO #** SS00025

### Site Details

**Name** Veolia Clyde  
**Address** Clyde Transfer Terminal  
322 Parramatta road  
Clyde NSW 2142  
**Contact** Rod Jones  
**Telephone**  
**Mobile** 0437 167 211  
**Email** rod.jones@veolia.com

### Customer Details

**Name** Veolia Environmental Services P/L  
**Address** Level 4, 65 Pirrama Road  
Pyrmont NSW 2009  
**Contact** Adele Rachkide  
**Telephone** 9841 2508  
**Mobile**  
**Email** adele.rachkidi@veolia.com

### Work Requested

Attend Site and carry out maintenance for the month of November

Programmed maintenance service for the HVAC (Heating, Ventilation and Air-conditioning) system onsite.

- Extraction Fans x 02
- Variable Speed Drives x 02
- AC Units Serving Admin Office x 08 (3 ducted and 5 splits)
- Air balancing / Air flow testing 2 times per year
- Cleaning of Fans and Plenum 2 times per year

### Kyle Dempsey (05/11/2021) - Work Note

Arrived on site

Conducted maintenance on odour extraction fans serving the pit

Conducted maintenance on all split system units in the general office and weigh bridge office.

Isolated the power to extraction fans 1 and 2 in pit

Isolated alarms to the fan sensor.

Took off the covers to inspect the conditions of the belts, pulleys and bearings, all looked okay.

Greased the fan motor and bearings for both fans.

Inspected the conditions of both VSDs, all tested okay.

Turned the main power back on and tested the fans in run, then powered the fan sensor alarms back on.

Conducted maintenance on all split systems (Mitsubishi electric) serving the general office, including the managers offices, the comms room, lunchroom and meeting.

Also checked the Room Air conditioners serving the changeroom and back lunchroom.

All filters have been cleaned, flushed water through the condensate drains, checked operations of all systems in full cooling mode to prepare for warmer temperatures

Checked electrical components

Checked outdoor units

Checked for faults and/or damage to systems.

All tested okay.

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**CUSTOMER JOB NO. 32200 - Steve Hortis**

Conducted maintenance on wall split system serving the weigh bridge office.  
Cleaned the filters  
Flushed out the condensate drain  
Checked operations in full cooling mode to prepare for warmer temperatures  
Adjusted the time and setpoints in cooling and heating on the controller  
Checked the outdoor unit  
Checked the electrical components  
Checked for faults and/or damage to system.  
All tested okay.

**For my safety and well-being during COVID-19, I cannot provide my signature, however, I confirm that the technician was onsite to carry out the above mentioned works.**

**Customer:**

_____	_____
Print Name	Signature

**Technician:**

_____	_____
Print Name	Signature

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Norwest NSW 2153



**CUSTOMER JOB NO. 32314 - Kyle Dempsey**

**Project Name** Pulley Replacement

**Date Created** 13/12/2021

**PO #** 7100338639

**Site Details**

**Name** Veolia Clyde  
**Address** Clyde Transfer Terminal  
322 Parramatta road  
Clyde NSW 2142  
**Contact** Rod Jones  
**Telephone**  
**Mobile** 0437 167 211  
**Email** [rod.jones@veolia.com](mailto:rod.jones@veolia.com)

**Customer Details**

**Name** Veolia Environmental Services P/L  
**Address** Level 4, 65 Pirrama Road  
Pymont NSW 2009  
**Contact**  
**Telephone** (02) 8588 1401  
**Mobile**  
**Email** [anz.accountspayable@veolia.com](mailto:anz.accountspayable@veolia.com)

**Work Requested**

Invoice job already at Rod Jones request.  
This is a duplicate job with no charges.  
Notes to be sent to Rod when job complete on the Job Card Only.

See Invoice 11935 (Job 32313)

**Kyle Dempsey (16/12/2021) - Work Note-**

Arrived on site  
Hoisted new pulleys up ladder to plantroom where extraction fans are located  
Isolated power to both extraction fans to begin works.  
- Removed covers from pulleys and belts.  
- Removed damaged pulleys on both the fan motor and fan shaft, also removed taper lock bushings.  
- Placed new pulleys and taper-lock bushings to both fan motor and fan shaft.  
- checked pulley alignment was correct, replaced damaged belts with spares that were on site, adjusted fan motor to re-ve tight tension on the belts to avoid any further damage.  
- Placed covers back on pulleys and belts, removed tools and packed up area. Turned power back on to test run and inspect performance of fan, also turned fan sensor alarm back on.  
- All tested okay. Job completed.

For my safety and well-being during COVID-19, I cannot provide my signature, however, I confirm that the technician was onsite to carry out the above mentioned works.

**Customer:**

\_\_\_\_\_  
Print Name

\_\_\_\_\_  
Signature

**Technician:**

\_\_\_\_\_  
Print Name

\_\_\_\_\_  
Signature

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PO Box 7996

Norwest NSW 2153



## CUSTOMER JOB NO. 32357 - Steve Hortis

**Project Name** Monthly Maintenance - January

**Date Created** 05/01/2022

**PO #** 7100337757

### Site Details

**Name** Veolia Clyde  
**Address** Clyde Transfer Terminal  
322 Parramatta road  
Clyde NSW 2142  
**Contact** Rod Jones  
**Telephone**  
**Mobile** 0437 167 211  
**Email** rod.jones@veolia.com

### Customer Details

**Name** Veolia Environmental Services P/L  
**Address** Level 4, 65 Pirrama Road  
Pyrmont NSW 2009  
**Contact** Bob Manevski  
**Telephone** (02) 9841 2802  
**Mobile** 0412 275 133  
**Email** bob.manevski@veolia.com

### Work Requested

Attend Site and carry out maintenance for the month of January

Programmed maintenance service for the HVAC (Heating, Ventilation and Air-conditioning) system onsite.

- Extraction Fans x 02
- Variable Speed Drives x 02
- AC Units Serving Admin Office x 08 (3 ducted and 5 splits)
- Air balancing / Air flow testing 2 times per year
- Cleaning of Fans and Plenum 2 times per year

#### Kyle Dempsey - January 2022

Conducted maintenance on the odour extraction fans above the compactor pit.

Fan 1 belts are okay.

Bearings have been greased.

Fan motor bearings have been greased.

Checked the operations on the fans at full capacity

VSDs are operating normally.

All tested okay.

Conducted maintenance on AC systems in the

General office, which includes 5 wall split system units serving the lunchroom, small offices, meeting room and comms room, and weighbridge office.

Filters have been cleaned

Condensate drains have been flushed

Tested operations of each system in full cooling mode

Checked electrical components for each unit

Checked for faults and/or damage to units

Checked for sufficient airflow

Checked that temperatures are meeting set point.

All tested okay.

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[service@egac.com.au](mailto:service@egac.com.au)

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**CUSTOMER JOB NO. 32357 - Steve Hortis**

**For my safety and well-being during COVID-19, I cannot provide my signature, however, I confirm that the technician was onsite to carry out the above mentioned works.**

**Customer:**

\_\_\_\_\_

Print Name

Signature

**Technician:**

\_\_\_\_\_

Print Name

Signature



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[service@eqac.com.au](mailto:service@eqac.com.au)

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## CUSTOMER JOB NO. 32439 - Steve Hortis

**Project Name** Monthly Maintenance - Feb

**Date Created** 02/02/2022

**PO #** 7100337757

### Site Details

**Name** Veolia Clyde  
**Address** Clyde Transfer Terminal  
322 Parramatta road  
Clyde NSW 2142  
**Contact** Rod Jones  
**Telephone**  
**Mobile** 0437 167 211  
**Email** rod.jones@veolia.com

### Customer Details

**Name** Veolia Environmental Services P/L  
**Address** Level 4, 65 Pirrama Road  
Pyrmont NSW 2009  
**Contact** Bob Manevski  
**Telephone** (02) 9841 2802  
**Mobile** 0412 275 133  
**Email** bob.manevski@veolia.com

### Work Requested

Attend Site and carry out maintenance for the month of Feb

Programmed maintenance service for the HVAC (Heating, Ventilation and Air-conditioning) system onsite.

- Extraction Fans x 02
- Variable Speed Drives x 02
- AC Units Serving Admin Office x 08 (3 ducted and 5 splits)
- Air balancing / Air flow testing 2 times per year
- Cleaning of Fans and Plenum 2 times per year

### Kyle Dempsey (15/02/2022) - Work Note

Arrived on site  
Conducted maintenance on Administration office and weigh bridge office.  
Administration office included 5 wall split Ac systems, and 3 Room AC units.  
The weigh bridge office included 1 wall split system.

All filters had been cleaned  
All condensate drains have been flushed and cleared

**For my safety and well-being during COVID-19, I cannot provide my signature, however, I confirm that the technician was onsite to carry out the above mentioned works.**

**Customer:**

\_\_\_\_\_  
Print Name Signature

**Technician:**

\_\_\_\_\_  
Print Name Signature

# Equilibrium Air Conditioning Services Pty Ltd

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Telephone: (02) 9439 4822

[service@egac.com.au](mailto:service@egac.com.au)

PO Box 7996

Norwest NSW 2153



## CUSTOMER JOB NO. 32523 - Steve Hortis

**Project Name** Monthly Maintenance - March

**Date Created** 28/02/2022

**PO #** 7100337757

### Site Details

**Name** Veolia Clyde  
**Address** Clyde Transfer Terminal  
322 Parramatta road  
Clyde NSW 2142  
**Contact** Rod Jones  
**Telephone**  
**Mobile** 0437 167 211  
**Email** rod.jones@veolia.com

### Customer Details

**Name** Veolia Environmental Services P/L  
**Address** Level 4, 65 Pirrama Road  
Pymont NSW 2009  
**Contact** Bob Manevski  
**Telephone** (02) 9841 2802  
**Mobile** 0412 275 133  
**Email** bob.manevski@veolia.com

### Work Requested

Attend Site and carry out maintenance for the month of March

Programmed maintenance service for the HVAC (Heating, Ventilation and Air-conditioning) system onsite.

- Extraction Fans x 02
- Variable Speed Drives x 02
- AC Units Serving Admin Office x 08 (3 ducted and 5 splits)
- Air balancing / Air flow testing 2 times per year
- Cleaning of Fans and Plenum 2 times per year

### Kyle Dempsey (09/03/2022) - Work Note-

Arrived on site

Conducted maintenance on Administrative office and weighbridge office AC systems, which includes 6 wall split units and 3 Room AC units.

For AC units serving administrative office

Filters have been cleaned

Condensate drains have been flushed and cleared

Tested operations of each system in full cooling mode and high fan speed

Checked electrical components

Checked for faults and/or damage to units

Checked that airflow is sufficient from each unit

Checked that rooms temperatures are meeting setpoint.

All tested okay.

For weighbridge office AC unit

Filters have been cleaned

Condensate drain has been flushed and cleared

Tested operations of system in full cooling mode and high fan speed

Checked electrical components

Checked for faults and/or damage to units





**CUSTOMER JOB NO. 32523 - Steve Hortis**

Checked that airflow is sufficient  
Checked that room temperature is meeting setpoint.  
All tested okay.

Had conducted maintenance on all outdoor units serving each indoor unit.  
Checked electrical components and wiring for loose terminals or damage cables  
Checked piping for leaks and damage  
Checked for faults and/or damage to units  
Checked condition of outdoor coils.  
All tested okay.

Cleaned out all exhaust fans of dust and debris serving the administrative office.

Air chamber housing Extractions fans 1 and 2 is still yet to be cleaned above the compactor pit by subcontractors, with the weather creating mud and mould. Will wait until chamber is completely cleaned out before conducting a proper maintenance on fans.  
Have checked condition of belts which are still okay.  
Duct Cleaning Contractor is waiting for a dry days to clean the remainder of the duct .

**For my safety and well-being during COVID-19, I cannot provide my signature, however, I confirm that the technician was onsite to carry out the above mentioned works.**

**Customer:**

_____	_____
Print Name	Signature

**Technician:**

_____	_____
Print Name	Signature

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[service@eqac.com.au](mailto:service@eqac.com.au)

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Norwest NSW 2153



## CUSTOMER JOB NO. 32611 - Steve Hortis

**Project Name** Monthly Maintenance

**Date Created** 30/03/2022

**PO #** 7100337757

### Site Details

**Name** Veolia Clyde  
**Address** Clyde Transfer Terminal  
322 Parramatta road  
Clyde NSW 2142  
**Contact** Rod Jones  
**Telephone**  
**Mobile** 0437 167 211  
**Email** rod.jones@veolia.com

### Customer Details

**Name** Veolia Environmental Services P/L  
**Address** Level 4, 65 Pirrama Road  
Pyrmont NSW 2009  
**Contact** Bob Manevski  
**Telephone** (02) 9841 2802  
**Mobile** 0412 275 133  
**Email** bob.manevski@veolia.com

### Work Requested

Attend Site and carry out maintenance for the month of April 2022

Programmed maintenance service for the HVAC (Heating, Ventilation and Air-conditioning) system onsite.

- Extraction Fans x 02
- Variable Speed Drives x 02
- AC Units Serving Admin Office x 08 (3 ducted and 5 splits)
- Air balancing / Air flow testing 2 times per year
- Cleaning of Fans and Plenum 2 times per year

### Kyle Dempsey (21/04/2022) - Work Note

Attended site to show duct cleaning contractors what works needed completing to clean the fan chamber. Have left contractors to complete works, will be provided photos of the job once finished.

### Kyle Dempsey (14/04/2022) - Work Note

Arrived on site

Firstly conducted maintenance on 2 extraction fans above compactor pit.

Fan 2 is experiencing an earth fault (A14) on danfoss VSD, shutting down motor.

VSD may have a faulty control card

Will need to further diagnose once area is cleaned up.

Belts are okay

Motor and fan shaft bearings have been greased

Pulleys are okay

Cleaned out motors and VSDs of a huge build-up of dirt and debris.

Will need to attend site next week to test the motor and VSD and diagnose the issue

Duct cleaning contractors will need to return to finish cleaning out the extraction fan air chamber.

Fans, framework and floor around the fans have been left untouched and there are signs of mould growing on the fan framework inside the air chamber.

Equilibrium Air Conditioning Services Pty Ltd  
ABN 51 844 035 531

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[service@eqac.com.au](mailto:service@eqac.com.au)

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Norwest NSW 2153



**CUSTOMER JOB NO. 32611 - Steve Hortis**

Conducted maintenance on Administration office and weighbridge office AC units, which includes 6 wall split system ACs and 3 Room ACs.  
Filters have all been cleaned  
Flushed all condensate drains  
Tested operations on each unit in full cooling and heating mode and high fan speed  
Checked electrical components  
Checked for faults and/or damage  
Checked that airflows are sufficient  
Checked that room temperatures are meeting setpoint.  
All tested okay.

Conducted maintenance on 6 Outdoor units for each indoor system.  
Checked electrical components  
Checked wiring for damaged cables or terminals  
Checked pipework for leaks and damage  
Checked for faults and/or damage to units  
Checked condition of outdoor coils.  
All tested okay.

**For my safety and well-being during COVID-19, I cannot provide my signature, however, I confirm that the technician was onsite to carry out the above mentioned works.**

**Customer:**

_____	_____
Print Name	Signature

**Technician:**

_____	_____
Print Name	Signature

# Equilibrium Air Conditioning Services Pty Ltd

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[service@eqac.com.au](mailto:service@eqac.com.au)

PO Box 7996

Norwest NSW 2153



## CUSTOMER JOB NO. 32703 - Steve Hortis

**Project Name** Monthly Maintenance

**Date Created** 09/05/2022

**PO #** 7100337757

### Site Details

**Name** Veolia Clyde  
**Address** Clyde Transfer Terminal  
322 Parramatta road  
Clyde NSW 2142  
**Contact** Rod Jones  
**Telephone**  
**Mobile** 0437 167 211  
**Email** rod.jones@veolia.com

### Customer Details

**Name** Veolia Environmental Services P/L  
**Address** Level 4, 65 Pirrama Road  
Pyrmont NSW 2009  
**Contact** Bob Manevski  
**Telephone** (02) 9841 2802  
**Mobile** 0412 275 133  
**Email** bob.manevski@veolia.com

### Work Requested

Attend Site and carry out maintenance for the month of May

Programmed maintenance service for the HVAC (Heating, Ventilation and Air-conditioning) system onsite.

- Extraction Fans x 02
- Variable Speed Drives x 02
- AC Units Serving Admin Office x 08 (3 ducted and 5 splits)
- Air balancing / Air flow testing 2 times per year
- Cleaning of Fans and Plenum 2 times per year

### Kyle Dempsey (18/05/2022) - Work Note

Arrived on site

Conducted maintenance on extraction fans above compactor pit. Extraction fan 2 is shutdown as it requires a new VSD to be installed. Extraction fan 1 requires new pulleys after finding belts to have cracked, belts should be lasting longer and there is visible wear and tear on the fan motor pulley and fly wheel on the fan shaft (quote for belts and pulleys to be sent to client).

Had placed belts from fan 1 onto fan 2 to keep it operational while fan 1 is shutdown.

Greased bearings on fan motor and fan shaft for both fans and cleaned debris from fan motor and VSDs.

Conducted maintenance on AC systems in administration office and weighbridge office.

This included 6 wall split systems and 3 Room Air conditioners.

Filters have been cleaned

Condensate drains have been flushed

Tested operations of systems in full cooling and heating mode and high fan speed

Checked electrical components

Checked for faults and/or damage to units

Checked airflows are sufficient

Checked that room temperatures are meeting setpoint.

All tested okay.

Conducted maintenance on 6 outdoor units serving wall split systems.

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[service@egac.com.au](mailto:service@egac.com.au)

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Norwest NSW 2153



**CUSTOMER JOB NO. 32703 - Steve Hortis**

Checked electrical components  
Checked wiring for damaged or burnt out terminals and cables  
Checked pipework for leaks or damage  
Checked condition of outdoor coils and cleaned  
Checked for faults and/or damage to units.  
All tested okay.

**For my safety and well-being during COVID-19, I cannot provide my signature, however, I confirm that the technician was onsite to carry out the above mentioned works.**

**Customer:**

_____	_____
Print Name	Signature

**Technician:**

_____	_____
Print Name	Signature



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**APPENDIX B:**  
WEATHER DATA CALIBRATION REPORTS  
(JANUARY 2022 & APRIL 2022)

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20/1/2022

Mary Wong  
Veolia Environmental Services (Australia) Pty Ltd

**Re – Quarterly service of weather stations**

Dear Mary,

As per our service agreement, on the 20/1/22 HS 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 27/10/21**

<b>Sensor</b>	<b>Actual (field)</b>	<b>Logger</b>
Temperature – 10m*	22.0	21.1
2m*	22.0	21.3
Relative Humidity*	61.0	60.1
Wind Speed	6.0 m/s at ground	7.5 m/s at 10 metres
Wind Direction	1940	140
Solar Radiation	589	585
TBRG	10mm	20 tips
Battery/Solar	13.4	

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

Note 2: Ignore rainfall tips logged at approximately 0815 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 27/10/21**

<b>Sensor</b>	<b>Actual (field)</b>	<b>Logger</b>
Temperature – 10m*	23.5	22.3
2m*	23.5	23.6
Relative Humidity*	58.0	60.0
Wind Speed	6.3 m/s at ground (poor exposure at ground)	8.1 m/s at 10 metres.

Wind Direction	140	140
Solar Radiation	340	338
TBRG	10mm	21 tips
Battery/Solar	13.1	

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

Note 2: Ignore rainfall tips logged at approximately 0930 EST as these were testing.

Note 3: Modem had lost its settings. – Repaired.

#### Additional Items

1. All components cleaned.
2. Installation sprayed for insects.

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

Should you require any further information on this report please do not hesitate to contact me on 0420316459.

Phil Evison.





06/4/2022

Mary Wong  
Veolia Environmental Services (Australia) Pty Ltd

**Re – Quarterly service of weather stations**

Dear Mary,

As per our service agreement, on the 4/4/22 HS 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 04/04/2022](#)

Sensor	Actual (field)	Logger
Temperature – 10m*	18.0	17.8
2m*	18.0	17.6
Relative Humidity*	61.0	60.5
Wind Speed	0.4 m/s at ground	0.43 m/s at 10 metres
Wind Direction	300	300
Solar Radiation	310	307
TBRG	10mm	20 tips
Battery/Solar	14.3	

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

Note 2: Ignore rainfall tips logged at approximately 0800 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 04/04/2022](#)

Sensor	Actual (field)	Logger
Temperature – 10m*	23.0	22.8
2m*	23.0	22.7
Relative Humidity*	39.4	38.7
Wind Speed	1.0 m/s at ground (poor exposure at ground)	1.5 m/s at 10 metres.

Wind Direction	250	250
Solar Radiation	660	670
TBRG	10mm	21 tips
Battery/Solar	13.1	

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

Note 2: Ignore rainfall tips logged at approximately 0920 EST as these were testing.

Note 3: Ant infestation in TBRG, clean and spray, repair faulty switch.

#### Additional Items

1. All components cleaned.
2. Installation sprayed for insects.

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

Should you require any further information on this report please do not hesitate to contact me on 0420316459.

Phil Evison.



# *Hydrometric Consulting Services Pty Ltd*

ABN 16 091 437 071

26 November 2021

Mary Wong  
Graduate Environmental Engineer  
Veolia Environmental Services Australia Pty Ltd

## **Re – Replacement of Bearings in the Wind Sensor at Clyde Weather Station**

Dear Mary,

On 25 November 2021 Hydrometric Consulting Services (HCS) carried out the following work at the Clyde Weather Station:

- Supplied and installed new bearings in the wind sensor at 10 metres
- Serviced and cleaned the sensors at 10 metres.

The system is fully operational.

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



Glen Murphy





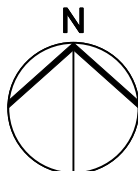
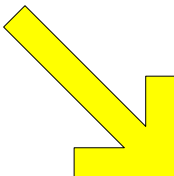
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**APPENDIX C:**  
FIELD AMBIENT ODOUR ASSESSMENT PLOT AND FIELD SHEET  
(8 JUNE 2022)

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<b>DESCRIPTION</b>  Field Ambient Odour Assessment Survey Modified German Standard VDI 3940		<b>LEGEND</b> German Intensity Scale VDI3882 0 Not detectable 1 Very weak 2 Weak 3 Distinct 4 Strong 5 Very strong 6 Extremely strong		 <b>Veolia (Australia) Pty Ltd</b> Clyde Transfer Terminal, Clyde, NSW Field Ambient Odour Assessment Survey  <b>Survey Date:</b> 8 June 2022 <b>Survey Time Period:</b> 1155 hrs to 1253 hrs		
	<b>THE ODOUR UNIT PTY LTD</b> Level 3, 12/56 Church Avenue MASCOT, NSW 2020 Phone: (02) 9209 4420 <a href="http://www.odourunit.com.au">www.odourunit.com.au</a>		<b>DRAWN BY</b>	I.FARRUGIA 28/07/2022	<b><u>Odour Audit XXXIX</u></b>  Field Ambient Odour Assessment Survey	<b><u>Plot No.</u></b> N1473-XXXIX
			<b>CHECKED</b>	J.SCHULZ 28/07/2022		<b><u>Job No.</u></b>
			<b>APPROVED</b>	J.SCHULZ 28/07/2022		N1473L
		<b>Local wind direction</b> 		<b>Local wind conditions</b>  Light wind speeds, with winds blowing from the northwest. No rainfall observed.		
				Refer to <b>FAOA Logsheet N1473L-XXXIX</b> for details on recorded odour detections		





# THE ODOUR UNIT PTY LTD

Level 3, 12/56 Church Avenue  
MASCOT NSW 2020

Phone: +61 2 9209 4420  
Facsimile: +61 2 9209 4421  
Email: [info@odourunit.com.au](mailto:info@odourunit.com.au)  
Internet: [www.odourunit.com.au](http://www.odourunit.com.au)  
ABN: 53 091 165 061

## Field Ambient Odour Assessment Log Sheet

**Date:** 8 June 2022

**Assessor:** J. Schulz

**Weather Conditions:** Light wind speeds blowing from the northwest. No rainfall observed.

**Survey Reference Plot No:** N1473L-XXXVIII

GRIF REF. POSITION	MEASUREMENT TIME PERIOD (hrs)	WIND DIRECTION	WIND SPEED (m/s)	ODOUR PRESNT (Y/N)	ODOUR CHARACTER	VDI 3940 INTENSITY SCALE 0-6	COMMENTS
1	1155 – 1200	NW	1.0 – 3.0	N	--	0	--
2	1205 – 1210	NW	1.0 – 3.0	N	--	0	--
3	1214 – 1219	NW	1.0 – 3.0	N	--	0	--
4	1225 – 1230	NW	1.0 – 3.0	N	--	0	--
5	1240 – 1245	NW	1.0 – 3.0	N	--	0	--
6	1248 – 1253	NW	1.0 – 3.0	N	--	0	--