VEOLIA (AUSTRALIA) PTY LTD

Clyde Waste Transfer Terminal

Odour Audit XLII

Final Report

February 2024

THE ODOUR UNIT PTY LTD

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Project Number: N1473

Report Revision		
Revision Number	**Date**	**Description**
Initial Draft Report	08/03/2024	Pending documentation from Client
Draft Report	02/05/2024	Draft report issued for internal review
Final Report	04/06/2024	Final report issued to the Client
Report Preparation		
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Report Title: Veolia (Australia) Pty Ltd Clyde Waste Transfer Terminal – Odour Audit XLII		

CONTENTS

1 INTRODUCTION 1
1.1 Odour Audit Period 1
1.2 Odour Audit Requirements 1
1.3 Prevailing Weather Conditions 2
2 ODOUR AUDIT FINDINGS 3
2.1 Assessment of General Housekeeping 3
2.1.1 Transfer Terminal Building 3
2.1.2 Container Packing Area and Site Roadways 3
2.1.3 Odour Management Plan 4
2.1.4 Odour Extraction System Maintenance 5
2.1.5 Odour Management Procedures/Plan 6
2.1.6 Transfer Terminal Building 6
2.1.7 Truck Entrance Plastic Strips 6
2.1.8 Smoke Testing 8
2.2 Odour Complaints Handling and Meteorological Data 10
2.2.1 Odour Complaints Handling 10
2.2.2 Meteorological Data 10
2.3 Field Ambient Odour Assessment Methodology 10
2.3.1 Field Ambient Odour Assessment – Results 11
3 RECOMMENDATIONS/FOLLOW-UP ACTIONS 12
3.1 Previous Audit Actions 12
3.2 Transfer Terminal Building 12
3.3 Compactor Area 12
3.4 Odour Extraction System 12
3.5 Weather Station 13
3.6 Off-site Odour Impacts 13
3.7 Odour Management Procedures/Plan 13
3.8 Concluding Remark 13

FIGURES, PHOTOS & TABLES

FIGURES

Figure 2.1 – Smoke testing release points within the TTB on 27 February 2024 8

PHOTOS

Photo 2.1 – TTB waste floor as found on 27 February 2024 (during a smoke test)..... 3
Photo 2.2 – A view of the container area as found on 27 February 2024 5
Photo 2.3 – A view of the truck entrance plastic strips as found on 27 February 2024 7
Photo 2.4 – A view of the truck entrance plastic strips during smoke testing on 27 February 2024 9

TABLES

Table 2.1 – VDI 3882 Odour Intensity Categories 11

APPENDICES

APPENDIX A: Odour Extraction System Service Reports (July 2023 – February 2024)

APPENDIX B: Weather Data Calibration Reports (July 2023, October 2023 & January 2024)

APPENDIX C: Field Ambient Odour Assessment Plot and Field Sheet (27 February 2024)

LIST OF ABBREVIATIONS AND DEFINITIONS

FAOA	Field Ambient Odour Assessment
HCS	Hydrometric Consulting Services
the Clyde TT	Veolia Clyde Transfer Terminal
the Draft OEMP	The draft version of the *Operational Environmental Management Plan* dated 6 November 2020
the February 2010 OMP	Odour Management Plan dated February 2010
the Odour Audit	Odour Audit XLII covering the period between 6 July 2023 and 27 February 2024
the September 2017 Container Preparation Document	Waste container preparation requirements for the Clyde TT
the September 2017 NSW RR Container Document	*NSW Resource Recovery – Container Maintenance* dated 15 September 2017
TOU	The Odour Unit Pty Ltd
TTB	Transfer Terminal Building
Veolia	Veolia (Australia) Pty Ltd
VSD	variable speed drive

UNITS OF MEASUREMENTS

^{o}C	degrees Celsius
m/s	metres per second

1 INTRODUCTION

The Odour Unit Pty Ltd (**TOU**) was commissioned by Veolia (Australia) Pty Ltd (**Veolia**) to undertake the forty-second (**XLII**) Odour Audit at the Clyde Transfer Terminal (the **Clyde TT**). The visit for Odour Audit XLII was undertaken on 27 February 2024 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 Clyde TT.

1.1 ODOUR AUDIT PERIOD

Odour Audit XLII covers the period between 5 July 2023 and 27 February 2024 (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 XLII 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 to moderate (2.0 – 4.0 metres per second (**m/s**)) wind speeds with the local wind direction blowing predominantly from the southeast. The skies were overcast and the ambient temperature during the Odour Audit visit was between 21 and 23 degrees Celsius (**°C**) during the Odour Audit visit. Very light 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 210 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. The 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 waste area.

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 floor as found on 27 February 2024 (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. The container

compacting/train packing area had a weak 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 maintained to a 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 Clyde TT. The weight of each container is monitored to determine if any waste has not been removed from each container, which reduces the likelihood of the containers contributing to the Clyde TT's odour levels.

2.1.2.1 Container Management and Maintenance

Based on previous 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 Clyde TT (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 Clyde TT, following the compaction of waste, all filled containers are entirely sealed and remain so while at the Clyde TT. All containers used are required to be in good condition, and unused/returned containers are adequately clean. The Odour Audit finds that this continues to be the current practice at the Clyde TT. A view of the condition of the container area as found on 27 February 2024 is shown in **Photo 2.2**.

Photo 2.2 – A view of the container area as found on 27 February 2024

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 August 2023 to February 2024.

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 cleaning filters, checking the fan belts and unit operations, greasing bearings, component replacement, and other routine preventative maintenance works were being inspected and undertaken. Notably, the November 2023 service log recorded a short-circuiting of the fan variable speed drive (**VSD**). This was rectified and documented in the December 2023 service log, and no odour complaints were received during this time (or any other through the Odour Audit XLII period).

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 with a copy of the draft *Operational Environmental Management Plan* for the Clyde TT 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 Clyde TT 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. The yellow door on the southeastern side of the receivables hall was found to require maintenance, as it could not properly open, which did not affect the odour emission potential as it could still be effectively closed. Additionally, there was a gap between the concrete wall which this yellow door is framed in and the remaining sheet metal shell of the TTB, though a potential source of fugitive emissions, it would be difficult to implement an effective solution as the fire suppression systems' pipes are impedances.

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 somewhat damaged and in a state to function and effectively reduce air movement at the top section of the truck entrance (refer to **Photo 2.3**). It should be noted this will likely require action within a 12-month period and should be budgeted for.

Photo 2.3 – A view of the truck entrance plastic strips as found on 27 February 2024

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**.

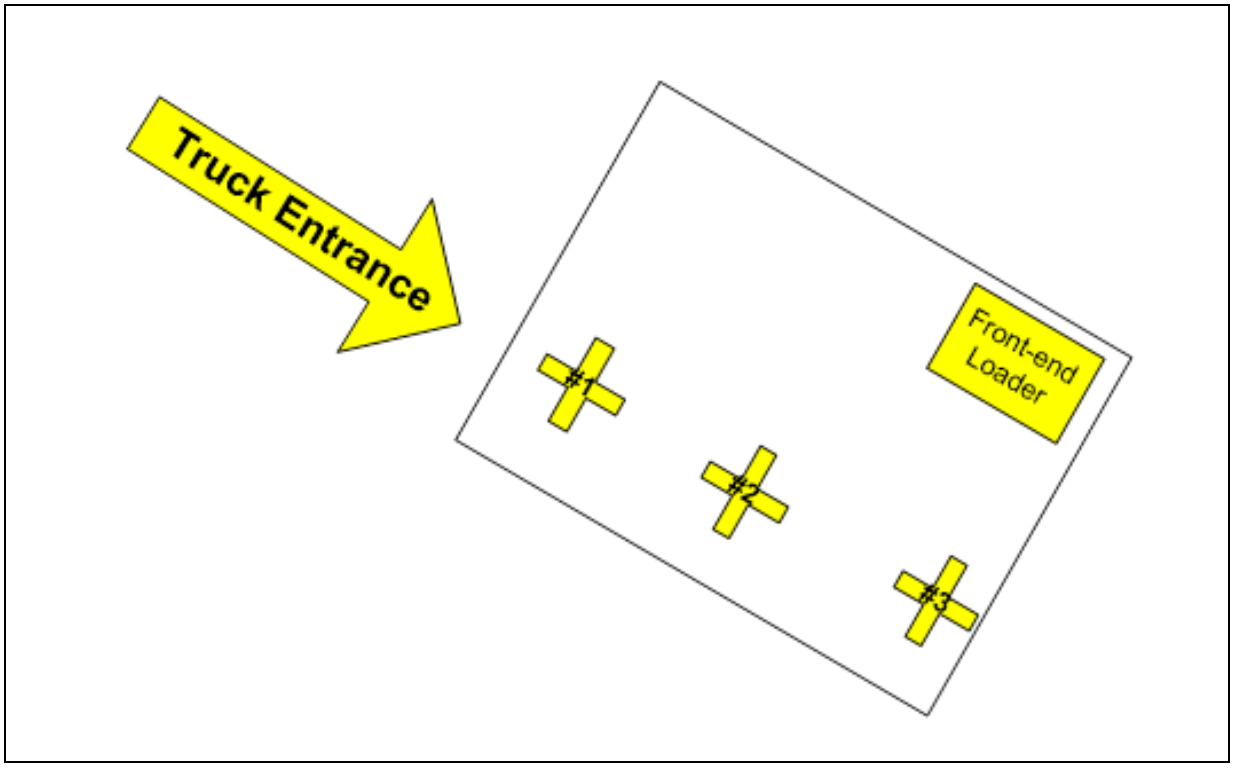

Figure 2.1 – Smoke testing release points within the TTB on 27 February 2024

Photo 2.4 – A view of the truck entrance plastic strips during smoke testing on 27 February 2024

2.1.8.1 Smoke Testing Results

Smoke Testing Point #1

The smoke released at this point initially moved horizontally inwards and gradually rose 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 gradually rose 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 #2.

2.2 ODOUR COMPLAINTS HANDLING AND METEOROLOGICAL DATA

2.2.1 Odour Complaints Handling

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

2.2.2 Meteorological Data

The meteorological data provided to the Odour Audit, covering the period of between July 2023 and February 2024, 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 27 February 2024 between 1435 hrs and 1529 hrs. The FAOA survey was undertaken at strategic off-site locations during the Odour Audit due to prevailing meteorological conditions. 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**.

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 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 Clyde TT 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**.

3 RECOMMENDATIONS/FOLLOW-UP ACTIONS

3.1 PREVIOUS AUDIT ACTIONS

The following list provides an outline of the last December 2022 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 (refer to **Section 3.7**).

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. The truck entrance plastic strips were superficially damaged, but functional and effective. The yellow door on the southeastern side of the receivals hall was found to require maintenance, as it could not properly open. This did not affect the odour emission potential as it could still be effectively closed.

Based on the findings in the Odour Audit, the following actions are recommended:

- **As part of regular maintenance, fix the yellow door on the southeast of the receival hall.**

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 (Odour Intensity 2) to Distinct (Odour Intensity 3) 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 December 2022 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 Clyde TT 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 Clyde TT. 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 Clyde TT 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 Clyde TT was excellent. There was no evidence to suggest that significant fugitive odour emission release from the Clyde TT is occurring.

The next Odour Audit is due in **August 2024**.

VEOLIA (AUSTRALIA) PTY LTD

Clyde Waste Transfer Terminal

Odour Audit XLII

Appendices

February 2024

THE ODOUR UNIT

APPENDIX A:

ODOUR EXTRACTION SYSTEM SERVICE REPORTS

(JULY 2023 – FEBRUARY 2024)

Equilibrium Air Conditioning Services Pty Limited
Unit 7, 38 Brookhollow Ave
Norwest, NSW 2153
Ph: 02 94394822 Fax:
ABN 51 844 035 531

Asset Record - Job No. 34416

Veolia Clyde
Clyde Transfer Terminal
322 Parramatta road
Clyde NSW 2142

Inspection Date: 19/01/2024
Contact: Rod Jones
Phone:

Asset Register - VSD

Asset ID	Unit ID	Unit Location	Brand	Model No	Serial No	Serving	Date	Service	Pass / Fail
3881	VSD Extraction Fan-1	Roof plant room	Danfoss	131B8508		Extraction Fan-1	19/01/2024		Pass
Notes	Wiped down dust on VSD Check electrical All tested okay								

Asset Register - Air-Cooled DX units / Split Systems

Asset ID	Unit ID	Unit Location	Brand	Model Number	Serial Number	Serving	Date	Service	Pass / Fail
3248	Manager office Wall AC	Manager office	Mitsubishi Electric	MSZ-GE35VAD	0000533	Manager’s office	19/01/2024		Pass
Notes	Washed filters Check electrical terminals Check operation All tested okay								
3249	Administration office Wall AC	Administration office	Samsung	AR09FSSSCWKN		Administration office	19/01/2024		Pass
Notes	Washed filters Check operation of system All tested okay								
3250	Comms room Wall AC	Comms room	Mitsubishi Electric	MSZ-AP25VGD	0029477	Comms room	19/01/2024		Pass
Notes	Washed filters Check system operation All tested okay								
3251	Meeting room Wall AC	Meeting room	Samsung	AR12FSFSDURN	0BLAPAJFA00098V	Meeting room	19/01/2024		Pass
Notes	Washed filters Check system operation								

Equilibrium Air Conditioning Services Pty Limited
Unit 7, 38 Brookhollow Ave
Norwest, NSW 2153
Ph: 02 94394822 Fax:
ABN 51 844 035 531

Asset Record - Job No. 34416

Veolia Clyde
Clyde Transfer Terminal
322 Parramatta road
Clyde NSW 2142

Inspection Date: 19/01/2024
Contact: Rod Jones
Phone:

	Check electrical connections All tested okay								
3252	Lunch room Wall AC	Lunch room	Mitsubishi Electric	MSZ-GE35VAD	8003334	Lunchroom	19/01/2024		Pass
Notes	Washed filters Check system operation All tested okay								
3253	Change room RAC	Changeroom	TECO	TWW16CFCG		Change room	19/01/2024		Pass
Notes	Washed filter Check operation of system All tested okay								
3285	Weighbridge office wall split AC	Weighbridge office	Panasonic	CU-E12PKR	6534700845	Weighbridge office	19/01/2024		Pass
Notes	Washed filters Condenser coil falling Apart Check operation All tested okay								

Asset Register - Fans

Asset ID	Unit ID	Unit Location	Brand	Model Number	Serial Number	Serving	Date	Service	Pass / Fail
3879	Extraction Fan-1	Roof plant room	HG	Y315S		Waste area	19/01/2024		Pass
Test Readings	Inspect motor terminal boxes for loose connections and overheating. Renew or rectify burnt wiring and tighten connections:			Check motor full load amps against nameplate rating and record. Check balance between phases:					
Notes	checked belts Grease bearings Check pulleys Greased Motor All tested okay								
3880	Extraction Fan-2	Roof plant room	HG	Y315S		Waste area	19/01/2024		Pass

Equilibrium Air Conditioning Services Pty Limited
Unit 7, 38 Brookhollow Ave
Norwest, NSW 2153
Ph: 02 94394822 Fax:
ABN 51 844 035 531

Asset Record - Job No. 34416

Veolia Clyde
Clyde Transfer Terminal
322 Parramatta road
Clyde NSW 2142

Inspection Date: 19/01/2024
Contact: Rod Jones
Phone:

Test Readings	Inspect motor terminal boxes for loose connections and overheating. Renew or rectify burnt wiring and tighten connections:	Check motor full load amps against nameplate rating and record. Check balance between phases:	
Notes	Checked belts Grease fan Grease Motor Checked Pulleys All tested okay		

Asset Register - VSD

Asset ID	Unit ID	Unit Location	Brand	Model No	Serial No	Serving	Date	Service	Pass / Fail
3882	VSD Extraction Fan-2	Roof plant room	Danfoss	131B8508		Extraction Fan-2	19/01/2024		Pass
Notes	Checked VSD electrical Wiped down dust from VSD All tested okay								

Description Of Work
Attend Site and carry out maintenance for the month of January 24

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

Equilibrium Air Conditioning Services Pty Limited
Unit 7, 38 Brookhollow Ave
Norwest, NSW 2153
Ph: 02 94394822 Fax:
ABN 51 844 035 531

Asset Record - Job No. 34416

Veolia Clyde
Clyde Transfer Terminal
322 Parramatta road
Clyde NSW 2142

Inspection Date: 19/01/2024
Contact: Rod Jones
Phone:

Steve Hortis (19/01/2024) - Technician Note

Upon Arrival washed filters
checked operation of indoor and outdoor Systems
Checked electrical connections on indoor & outdoor units
Note
Weighbridge Condenser coil guns falling Apart

Checked Outdoor Fans
Fan 1 was in fault
Reset fault
Checked belts
Grease motor&Supply fans
Checked Pulleys
Note VSDs Very Dusty Clean off Debris
All tested okay

Comments / Recommendations

Equilibrium Air Conditioning Services Pty Limited
Unit 7, 38 Brookhollow Ave
Norwest, NSW 2153
Ph: 02 94394822 Fax:
ABN 51 844 035 531

Asset Record - Job No. 34416

Veolia Clyde
Clyde Transfer Terminal
322 Parramatta road
Clyde NSW 2142

Inspection Date: 19/01/2024
Contact: Rod Jones
Phone:

Technician (Print Name): Steve Hortis

Licence No. L123305

Technician (Signature):

Customer (Print Name): Rod Jones

Customer (Signature):

Equilibrium Air Conditioning Services Pty Limited
Unit 7, 38 Brookhollow Ave
Norwest, NSW 2153
Ph: 02 94394822 Fax:
ABN 51 844 035 531

Asset Record - Job No. 34334

Veolia Clyde
Clyde Transfer Terminal
322 Parramatta road
Clyde NSW 2142

Inspection Date: 21/12/2023
Contact: Bob Manevski
Phone: (02) 9841 2802

Asset Register - VSD

Asset ID	Unit ID	Unit Location	Brand	Model No	Serial No	Serving	Date	Service	Pass / Fail
3881	VSD Extraction Fan-1	Roof plant room	Danfoss	131B8508		Extraction Fan-1	21/12/2023		Pass
Notes	Checked VSD Check electrical connections All tested okay								

Asset Register - Air-Cooled DX units / Split Systems

Asset ID	Unit ID	Unit Location	Brand	Model Number	Serial Number	Serving	Date	Service	Pass / Fail
3248	Manager office Wall AC	Manager office	Mitsubishi Electric	MSZ-GE35VAD	0000533	Manager’s office	21/12/2023		Pass
Notes	Washed filters Check electrical connections on indoor unit All tested okay								
3249	Administration office Wall AC	Administration office	Samsung	AR09FSSSCWKN		Administration office	21/12/2023		Pass
Notes	Washed filters Check connections on indoor unit All tested okay								
3250	Comms room Wall AC	Comms room	Mitsubishi Electric	MSZ-AP25VGD	0029477	Comms room	21/12/2023		Pass
Notes	Washed filters Check electrical on indoor units All tested okay								
3251	Meeting room Wall AC	Meeting room	Samsung	AR12FSFSDURN	0BLAPAJFA00098V	Meeting room	21/12/2023		Pass
Notes	Washed filters Check electrical connections on indoor unit All tested okay								

Equilibrium Air Conditioning Services Pty Limited
Unit 7, 38 Brookhollow Ave
Norwest, NSW 2153
Ph: 02 94394822 Fax:
ABN 51 844 035 531

Asset Record - Job No. 34334

Veolia Clyde
Clyde Transfer Terminal
322 Parramatta road
Clyde NSW 2142

Inspection Date: 21/12/2023
Contact: Bob Manevski
Phone: (02) 9841 2802

Asset Register - Air-Cooled DX units / Split Systems

Asset ID	Unit ID	Unit Location	Brand	Model Number	Serial Number	Serving	Date	Service	Pass / Fail
3252	Lunch room Wall AC	Lunch room	Mitsubishi Electric	MSZ-GE35VAD	8003334	Lunchroom	21/12/2023		Pass
Notes	Washed filters Check indoor unit operation All tested okay								
3253	Change room RAC	Changeroom	TECO	TWW16CFCG		Change room	21/12/2023		Pass
Notes	Washed filter Check operation of unit All tested okay								
3285	Weighbridge office wall split AC	Weighbridge office	Panasonic	CU-E12PKR	6534700845	Weighbridge office	21/12/2023		Pass
Notes	Washed filters Check electrical connections All tested okay								

Asset Register - Fans

Asset ID	Unit ID	Unit Location	Brand	Model Number	Serial Number	Serving	Date	Service	Pass / Fail
3879	Extraction Fan-1	Roof plant room	HG	Y315S		Waste area	21/12/2023		Pass
Test Readings	Inspect motor terminal boxes for loose connections and overheating. Renew or rectify burnt wiring and tighten connections:			Check motor full load amps against nameplate rating and record. Check balance between phases:					
Notes	Check belts Check motor Checked VSD Checked electrical connections All tested okay								
3880	Extraction Fan-2	Roof plant room	HG	Y315S		Waste area	21/12/2023		Pass
Test Readings	Inspect motor terminal boxes for loose connections and overheating. Renew or rectify burnt wiring and tighten connections:			Check motor full load amps against nameplate rating and record. Check balance between phases:					

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ABN 51 844 035 531

Asset Record - Job No. 34334

Veolia Clyde
Clyde Transfer Terminal
322 Parramatta road
Clyde NSW 2142

Inspection Date: 21/12/2023
Contact: Bob Manevski
Phone: (02) 9841 2802

Notes	Check belts Check electrical connections Checked VSD All tested okay

Asset Register - VSD

Asset ID	Unit ID	Unit Location	Brand	Model No	Serial No	Serving	Date	Service	Pass / Fail
3882	VSD Extraction Fan-2	Roof plant room	Danfoss	131B8508		Extraction Fan-2	21/12/2023		Pass
Notes	Check electrical Check cooling fan All tested okay								

Description Of Work
Attend Site and carry out maintenance for the month of December

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

Equilibrium Air Conditioning Services Pty Limited
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ABN 51 844 035 531

Asset Record - Job No. 34334

Veolia Clyde
Clyde Transfer Terminal
322 Parramatta road
Clyde NSW 2142

Inspection Date: 21/12/2023
Contact: Bob Manevski
Phone: (02) 9841 2802

Comments / Recommendations

Technician (Print Name):	Steve Hortis	Licence No. L123305	Customer (Print Name):	Rod Jones
Technician (Signature):			Customer (Signature):	

Equilibrium Air Conditioning Services Pty Limited
Unit 7, 38 Brookhollow Ave
Norwest, NSW 2153
Ph: 02 94394822 Fax:
ABN 51 844 035 531

Asset Record - Job No. 34224

Veolia Clyde
Clyde Transfer Terminal
322 Parramatta road
Clyde NSW 2142

Inspection Date: 30/11/2023
Contact: Bob Manevski
Phone: (02) 9841 2802

Asset Register - VSD

Asset ID	Unit ID	Unit Location	Brand	Model No	Serial No	Serving	Date	Service	Pass / Fail
3881	VSD Extraction Fan-1	Roof plant room	Danfoss	131B8508		Extraction Fan-1	30/11/2023		Fail
Notes	Short circuit to earth requires replacement								

Asset Register - Air-Cooled DX units / Split Systems

Asset ID	Unit ID	Unit Location	Brand	Model Number	Serial Number	Serving	Date	Service	Pass / Fail
3248	Manager office Wall AC	Manager office	Mitsubishi Electric	MSZ-GE35VAD	0000533	Manager's office	15/11/2023		Pass
Notes	Washed filters Checked indoor electrical connections Hosed off Condenser Coils Checked system operation Checked electrical All tested okay								
3249	Administration office Wall AC	Administration office	Samsung	AR09FSSSCWKN		Administration office	15/11/2023		Pass
Notes	Washed filters Checked indoor unit operation Checked indoor electrical terminals Hosed off Condenser coil Checked operating system Checked condenser terminals All tested okay								
3250	Comms room Wall AC	Comms room	Mitsubishi Electric	MSZ-AP25VGD	0029477	Comms room	15/11/2023		Pass
Notes	Washed filters Checked indoor electrical terminals Hosed off Condenser coil Checked operating system								

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Asset Record - Job No. 34224

Veolia Clyde
Clyde Transfer Terminal
322 Parramatta road
Clyde NSW 2142

Inspection Date: 30/11/2023
Contact: Bob Manevski
Phone: (02) 9841 2802

	All tested okay								
3251	Meeting room Wall AC	Meeting room	Samsung	AR12FSFSDURN	0BLAPAJFA00098V	Meeting room	15/11/2023		Pass
Notes	Washed filters Checked indoor unit operation Hosed off condenser coil Checked operation system Checked electrical connections All tested okay								
3252	Lunch room Wall AC	Lunch room	Mitsubishi Electric	MSZ-GE35VAD	8003334	Lunchroom	15/11/2023		Pass
Notes	Washed filters Checked indoor unit operation Hosed off condenser coil Checked system operation All tested okay								
3253	Change room RAC	Changeroom	TECO	TWW16CFCG		Change room	15/11/2023		Pass
Notes	Washed filter Checked operation of system All tested okay								
3285	Weighbridge office wall split AC	Weighbridge office	Panasonic	CU-E12PKR	6534700845	Weighbridge office	15/11/2023		Pass
Notes	Washed filters Checked indoor electrical Found Panasonic condenser fins falling apart Checked outdoor unit system operation All tested okay								

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Asset Record - Job No. 34224

Veolia Clyde
Clyde Transfer Terminal
322 Parramatta road
Clyde NSW 2142

Inspection Date: 30/11/2023
Contact: Bob Manevski
Phone: (02) 9841 2802

Asset Register - Fans

Asset ID	Unit ID	Unit Location	Brand	Model Number	Serial Number	Serving	Date	Service	Pass / Fail
3879	Extraction Fan-1	Roof plant room	HG	Y315S		Waste area	30/11/2023		Pass
Test Readings	Inspect motor terminal boxes for loose connections and overheating. Renew or rectify burnt wiring and tighten connections:			Check motor full load amps against nameplate rating and record. Check balance between phases:					
3880	Extraction Fan-2	Roof plant room	HG	Y315S		Waste area	30/11/2023		Pass
Test Readings	Inspect motor terminal boxes for loose connections and overheating. Renew or rectify burnt wiring and tighten connections:			Check motor full load amps against nameplate rating and record. Check balance between phases:					

Asset Register - VSD

Asset ID	Unit ID	Unit Location	Brand	Model No	Serial No	Serving	Date	Service	Pass / Fail
3882	VSD Extraction Fan-2	Roof plant room	Danfoss	131B8508		Extraction Fan-2	30/11/2023		Pass

Description Of Work

DYLAN AND ASHTON TO RETURN TO CHECK EXHAUST FANS 30/11/2023

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

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ABN 51 844 035 531

Asset Record - Job No. 34224

Veolia Clyde
Clyde Transfer Terminal
322 Parramatta road
Clyde NSW 2142

Inspection Date: 30/11/2023
Contact: Bob Manevski
Phone: (02) 9841 2802

Steve Hortis (15/11/2023) - Technician Note

Washed all filters
Checked indoor unit operation & electrical terminals
Hosed off Condenser coils due to dirt & debri on coil
Check system operation of all air con units
All tested okay

Exhaust fans will need to Return to check

Comments / Recommendations

Technician (Print Name):	Dylan Mengel	Licence No. L177835	Customer (Print Name):	Rod Jones
Technician (Signature):			Customer (Signature):	

Equilibrium Air Conditioning Services Pty Limited
Unit 7, 38 Brookhollow Ave
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Ph: 02 94394822 Fax:
ABN 51 844 035 531

Asset Record - Job No. 34088

Veolia Clyde
Clyde Transfer Terminal
322 Parramatta road
Clyde NSW 2142

Inspection Date: 03/10/2023
Contact: Bob Manevski
Phone: (02) 9841 2802

Asset Register - VSD

Asset ID	Unit ID	Unit Location	Brand	Model No	Serial No	Serving	Date	Service	Pass / Fail
3881	VSD Extraction Fan-1	Roof plant room	Danfoss	131B8508		Extraction Fan-1	03/10/2023		Pass
Notes	Checked cooling fan Checked electrical connections All tested okay								

Asset Register - Air-Cooled DX units / Split Systems

Asset ID	Unit ID	Unit Location	Brand	Model Number	Serial Number	Serving	Date	Service	Pass / Fail
3248	Manager office Wall AC	Manager office	Mitsubishi Electric	MSZ-GE35VAD	0000533	Manager’s office	03/10/2023		Pass
Notes	Washed filters Checked electrical connections All tested okay								
3249	Administration office Wall AC	Administration office	Samsung	AR09FSSSCWKN		Administration office	03/10/2023		Pass
Notes	Washed filters Checked electrical connections All tested okay								
3250	Comms room Wall AC	Comms room	Mitsubishi Electric	MSZ-AP25VGD	0029477	Comms room	03/10/2023		Pass
Notes	Washed filters Checked electrical connections All tested okay								
3251	Meeting room Wall AC	Meeting room	Samsung	AR12FSFSDURN	0BLAPAJFA00098V	Meeting room	03/10/2023		Pass
Notes	Washed filtered Checked electrical connections All tested okay								

Equilibrium Air Conditioning Services Pty Limited
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Asset Record - Job No. 34088

Veolia Clyde
Clyde Transfer Terminal
322 Parramatta road
Clyde NSW 2142

Inspection Date: 03/10/2023
Contact: Bob Manevski
Phone: (02) 9841 2802

Asset Register - Air-Cooled DX units / Split Systems

Asset ID	Unit ID	Unit Location	Brand	Model Number	Serial Number	Serving	Date	Service	Pass / Fail
3252	Lunch room Wall AC	Lunch room	Mitsubishi Electric	MSZ-GE35VAD	8003334	Lunchroom	03/10/2023		Pass
Notes	Washed filters Checked electrical connections All tested okay								
3253	Change room RAC	Changeroom	TECO	TWW16CFCG		Change room	03/10/2023		Pass
Notes	Washed filter Checked thermostat operation All tested okay								
3285	Weighbridge office wall split AC	Weighbridge office	Panasonic	CU-E12PKR	6534700845	Weighbridge office	03/10/2023		Pass
Notes	Washed filters Checked electrical connections All tested okay								

Asset Register - Fans

Asset ID	Unit ID	Unit Location	Brand	Model Number	Serial Number	Serving	Date	Service	Pass / Fail
3879	Extraction Fan-1	Roof plant room	HG	Y315S		Waste area	03/10/2023		Pass
Test Readings	Inspect motor terminal boxes for loose connections and overheating. Renew or rectify burnt wiring and tighten connections:		Check motor full load amps against nameplate rating and record. Check balance between phases:						
Notes	Checked fan Checked belts Checked electrical connections at motor Checked VSD								
3880	Extraction Fan-2	Roof plant room	HG	Y315S		Waste area	03/10/2023		Pass
Test Readings	Inspect motor terminal boxes for loose connections and overheating. Renew or rectify burnt wiring and tighten connections:		Check motor full load amps against nameplate rating and record. Check balance between phases:						

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Asset Record - Job No. 34088

Veolia Clyde
Clyde Transfer Terminal
322 Parramatta road
Clyde NSW 2142

Inspection Date: 03/10/2023
Contact: Bob Manevski
Phone: (02) 9841 2802

Notes	Checked fan Checked belts Checked VSD Checked motor electrical connections All tested okay

Asset Register - VSD

Asset ID	Unit ID	Unit Location	Brand	Model No	Serial No	Serving	Date	Service	Pass / Fail
3882	VSD Extraction Fan-2	Roof plant room	Danfoss	131B8508		Extraction Fan-2	03/10/2023		Pass
Notes	Checked Cooling fan Checked electrical connections All tested okay								

Description Of Work
Attend Site and carry out maintenance for the month of OCTOBER 2023

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

Steve Hortis (03/10/2023) - Technician Note

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Ph: 02 94394822 Fax:
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Asset Record - Job No. 34088

Veolia Clyde
Clyde Transfer Terminal
322 Parramatta road
Clyde NSW 2142

Inspection Date: 03/10/2023
Contact: Bob Manevski
Phone: (02) 9841 2802

Washed filters
checked operating system
checked indoor unit electrical connections
Checked extraction fans
Checked VSD
All tested okay

Comments / Recommendations

Technician (Print Name): Steve Hortis

Licence No. L123305

Technician (Signature):

Customer (Print Name): Rod Jones

Customer (Signature):

Equilibrium Air Conditioning Services Pty Limited
Unit 7, 38 Brookhollow Ave
Norwest, NSW 2153
Ph: 02 94394822 Fax:
ABN 51 844 035 531

Asset Record - Job No. 34022

Veolia Clyde
Clyde Transfer Terminal
322 Parramatta road
Clyde NSW 2142

Inspection Date: 12/09/2023
Contact: Rod Jones
Phone:

Asset Register - VSD

Asset ID	Unit ID	Unit Location	Brand	Model No	Serial No	Serving	Date	Service	Pass / Fail
3881	VSD Extraction Fan-1	Roof plant room	Danfoss	131B8508		Extraction Fan-1	12/09/2023		Pass
Notes	Checked VSD cooling fan								

Asset Register - Air-Cooled DX units / Split Systems

Asset ID	Unit ID	Unit Location	Brand	Model Number	Serial Number	Serving	Date	Service	Pass / Fail
3248	Manager office Wall AC	Manager office	Mitsubishi Electric	MSZ-GE35VAD	0000533	Manager's office	12/09/2023		Pass
Notes	Washed filters Checked indoor electrical system Checked outdoor electrical connections All tested okay								
3249	Administration office Wall AC	Administration office	Samsung	AR09FSSSCWKN		Administration office	12/09/2023		Pass
Notes	Washed filters Checked indoor electrical system Checked outdoor electrical connections Checked operating system All tested okay								
3250	Comms room Wall AC	Comms room	Mitsubishi Electric	MSZ-AP25VGD	0029477	Comms room	12/09/2023		Pass
Notes	Washed filters Checked electrical connections Checked outdoor electrical connections & system operation All tested okay								
3251	Meeting room Wall AC	Meeting room	Samsung	AR12FSFSDURN	0BLAPAJFA00098V	Meeting room	12/09/2023		Pass
Notes	Washed filters								

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Asset Record - Job No. 34022

Veolia Clyde
Clyde Transfer Terminal
322 Parramatta road
Clyde NSW 2142

Inspection Date: 12/09/2023
Contact: Rod Jones
Phone:

	Checked outdoor electrical connections Checked system operation All tested okay								
3252	Lunch room Wall AC	Lunch room	Mitsubishi Electric	MSZ-GE35VAD	8003334	Lunchroom	12/09/2023		Pass
Notes	Washed filters Checked electrical connections Checked outdoor operating system All tested okay								
3253	Change room RAC	Changeroom	TECO	TWW16CFCG		Change room	12/09/2023		Pass
Notes	Washed filters Checked system operation All tested okay								
3285	Weighbridge office wall split AC	Weighbridge office	Panasonic	CU-E12PKR	6534700845	Weighbridge office	12/09/2023		Pass
Notes	Washed filters Checked system operation Checked electrical connections All tested okay								

Asset Register - Fans

Asset ID	Unit ID	Unit Location	Brand	Model Number	Serial Number	Serving	Date	Service	Pass / Fail
3879	Extraction Fan-1	Roof plant room	HG	Y315S		Waste area	12/09/2023		Pass
Test Readings	Inspect motor terminal boxes for loose connections and overheating. Renew or rectify burnt wiring and tighten connections:			Check motor full load amps against nameplate rating and record. Check balance between phases:					
Notes	Checked motors checked pulleys Checked electrical connections All tested okay								
3880	Extraction Fan-2	Roof plant room	HG	Y315S		Waste area	12/09/2023		Pass

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Asset Record - Job No. 34022

Veolia Clyde
Clyde Transfer Terminal
322 Parramatta road
Clyde NSW 2142

Inspection Date: 12/09/2023
Contact: Rod Jones
Phone:

Test Readings	Inspect motor terminal boxes for loose connections and overheating. Renew or rectify burnt wiring and tighten connections:	Check motor full load amps against nameplate rating and record. Check balance between phases:	
Notes	Checked pulleys Checked motor Checked electrical connections All tested okay		

Asset Register - VSD

Asset ID	Unit ID	Unit Location	Brand	Model No	Serial No	Serving	Date	Service	Pass / Fail
3882	VSD Extraction Fan-2	Roof plant room	Danfoss	131B8508		Extraction Fan-2	12/09/2023		Pass
Notes	Checked VSD cooling fan Checked electrical connections All tested okay								

Description Of Work
Attend Site and carry out maintenance for the month of Sept

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

Steve Hortis (12/09/2023) - Technician Note

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Asset Record - Job No. 34022

Veolia Clyde
Clyde Transfer Terminal
322 Parramatta road
Clyde NSW 2142

Inspection Date: 12/09/2023
Contact: Rod Jones
Phone:

Washed filters
checked indoor electrical connections
Checked outdoor unit operating system
checked outdoor connections
Checked VSD & Extraction fans
All tested okay
Full Duct of Veolia Clyde was carried out 7th and 8th September.

Comments / Recommendations

Technician (Print Name): Steve Hortis

Licence No. L123305

Technician (Signature):

Customer (Print Name): Rod Jones

Customer (Signature):

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Ph: 02 94394822 Fax:
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Asset Record - Job No. 33908

Veolia Clyde
Clyde Transfer Terminal
322 Parramatta road
Clyde NSW 2142

Inspection Date: 09/08/2023
Contact: Rod Jones
Phone:

Asset Register - VSD

Asset ID	Unit ID	Unit Location	Brand	Model No	Serial No	Serving	Date	Service	Pass / Fail
3881	VSD Extraction Fan-1	Roof plant room	Danfoss	131B8508		Extraction Fan-1	09/08/2023		Pass
Notes	Had checked over parameters and condition of VSD, had cleaned out coil for airflow, had cleaned off dust and debris from housing. All tested okay.								

Asset Register - Air-Cooled DX units / Split Systems

Asset ID	Unit ID	Unit Location	Brand	Model Number	Serial Number	Serving	Date	Service	Pass / Fail
3248	Manager office Wall AC	Manager office	Mitsubishi Electric	MSZ-GE35VAD	0000533	Manager's office	08/08/2023		Pass
Notes	Washed filters, condensate drain has been flushed. Tested operations of unit in full cooling and heating mode on high fan speed, checked electrical components, checked for faults and/or damage to unit. Checked airflow is sufficient, checked room temperature is meeting set point. Tested ok.								
3249	Administration office Wall AC	Administration office	Samsung	AR09FSSSCWKN		Administration office	08/08/2023		Pass
Notes	Washed filters, condensate drain has been flushed. Tested operations of unit in full cooling and heating mode on high fan speed, checked electrical components, checked for faults and/or damage to unit. Checked airflow is sufficient, checked room temperature is meeting set point. Tested ok.								
3250	Comms room Wall AC	Comms room	Mitsubishi Electric	MSZ-AP25VGD	0029477	Comms room	08/08/2023		Pass
Notes	Washed filters, condensate drain has been flushed. Tested operations of unit in full cooling and heating mode on high fan speed, checked electrical components, checked for faults and/or damage to unit. Checked airflow is sufficient, checked room temperature is meeting set point. Tested ok.								
3251	Meeting room Wall AC	Meeting room	Samsung	AR12FSFSDURN	0BLAPAJFA00098V	Meeting room	08/08/2023		Pass
Notes	Washed filters, condensate drain has been flushed. Tested operations of unit in full cooling and heating mode on high fan speed, checked electrical components, checked for faults and/or damage to unit. Checked airflow is sufficient, checked room temperature is meeting set point. Tested ok.								
3252	Lunch room Wall AC	Lunch room	Mitsubishi Electric	MSZ-GE35VAD	8003334	Lunchroom	08/08/2023		Pass
Notes	Washed filters, condensate drain has been flushed. Tested operations of unit in full cooling and heating mode on high fan speed, checked electrical components, checked for faults and/or damage to unit. Checked airflow is sufficient, checked room temperature is meeting set point. Tested ok.								
3253	Change room RAC	Changeroom	TECO	TWW16CFCG		Change room	08/08/2023		Pass

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Asset Record - Job No. 33908

Veolia Clyde
Clyde Transfer Terminal
322 Parramatta road
Clyde NSW 2142

Inspection Date: 09/08/2023
Contact: Rod Jones
Phone:

Notes	Washed filters, condensate drain has been flushed. Tested operations of unit in full cooling and heating mode on high fan speed, checked electrical components, checked for faults and/or damage to unit. Checked airflow is sufficient, checked room temperature is meeting set point. Tested ok.								
3285	Weighbridge office wall split AC	Weighbridge office	Panasonic	CU-E12PKR	6534700845	Weighbridge office	08/08/2023		Pass
Notes	Washed filters, condensate drain has been flushed. Tested operations of unit in full cooling and heating mode on high fan speed, checked electrical components, checked for faults and/or damage to unit. Checked airflow is sufficient, checked room temperature is meeting set point. Tested ok.								

Asset Register - Fans

Asset ID	Unit ID	Unit Location	Brand	Model Number	Serial Number	Serving	Date	Service	Pass / Fail
3879	Extraction Fan-1	Roof plant room	HG	Y315S		Waste area	09/08/2023		Pass
Test Readings	Inspect motor terminal boxes for loose connections and overheating. Renew or rectify burnt wiring and tighten connections:			Check motor full load amps against nameplate rating and record. Check balance between phases:					
Notes	Had checked condition of belts/pulleys/bearings, had greased fan motor and fan shaft bearings, had cleaned off dust and debris from fan motor and housing. All tested okay.								
3880	Extraction Fan-2	Roof plant room	HG	Y315S		Waste area	09/08/2023		Pass
Test Readings	Inspect motor terminal boxes for loose connections and overheating. Renew or rectify burnt wiring and tighten connections:			Check motor full load amps against nameplate rating and record. Check balance between phases:					
Notes	Had checked condition of belts/pulleys/bearings, had greased fan motor and fan shaft bearings, had cleaned off dust and debris from fan motor and housing. All tested okay.								

Asset Register - VSD

Asset ID	Unit ID	Unit Location	Brand	Model No	Serial No	Serving	Date	Service	Pass / Fail
3882	VSD Extraction Fan-2	Roof plant room	Danfoss	131B8508		Extraction Fan-2	09/08/2023		Pass
Notes	Had checked over parameters and condition of VSD, had cleaned out coil for airflow, had cleaned off dust and debris from housing. All tested okay.								

Description Of Work
Attend Site and carry out maintenance for the month of August

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

Equilibrium Air Conditioning Services Pty Limited
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Asset Record - Job No. 33908

Veolia Clyde
Clyde Transfer Terminal
322 Parramatta road
Clyde NSW 2142

Inspection Date: 09/08/2023
Contact: Rod Jones
Phone:

- 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

Dylan Mengel (08/08/2023) - Work Note
Attended site and inspected
9 x split system air conditioner's.
Wiped down indoor and outdoor units
Washed filters
Flushed drains and tightened electrical terminals.
Tested on full cooling and heating modes to ensure set-point is reached.
Tested on high fan speed to confirm airflow is good. All tested ok.
Returned on the 9th August to carry out maintenance on the extraction Fans

Kyle Dempsey (09/08/2023) - Work Note
Conducted maintenance on Extraction fans (2 of) serving compactor pit, VSDs serving fans.

Fans
Checked condition of belts/pulleys/bearings
Greased fan motors and fan shaft bearings
Cleaned off dust and debris from fan motors and housing.
All tested okay.

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Asset Record - Job No. 33908

Veolia Clyde
Clyde Transfer Terminal
322 Parramatta road
Clyde NSW 2142

Inspection Date: 09/08/2023
Contact: Rod Jones
Phone:

VSDs
Checked over parameters and condition of VSDs
Cleaned out coils for airflow
Cleaned off dust and debris from housing.
All tested okay.

Comments / Recommendations

Technician (Print Name): Kyle Dempsey

Licence No. L141692

Technician (Signature):

Customer (Print Name): Rod Jones

Customer (Signature):

APPENDIX B:

WEATHER DATA CALIBRATION REPORTS

(JULY 2023, OCTOBER 2023 & JANUARY 2024)

HS HYDROMETRIC SERVICES PTY LTD

9/1/2024

Anae Ressos
Veolia Environmental Services (Australia) Pty Ltd

Re – Quarterly service of weather stations

Dear Anae,

As per our service agreement, on the 9/1/24 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 9/1/24

Sensor	**Actual (field)**	**Logger**
Temperature – 10m*	24.6	24.6
2m*	24.6	24.7
Relative Humidity*	68.7	69.2
Wind Speed	1.5 m/s at ground	1.9 m/s at 10 metres
Wind Direction	150	150
Solar Radiation	205	204
TBRG	10mm	20 tips
Battery/Solar	14.0	

* Note 1: Field reading is not inside the radiation shield.
Note 2: Ignore rainfall tips logged at approximately 0850 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 1/11/23

Sensor	**Actual (field)**	**Logger**
Temperature – 10m*	25.8	25.7
2m*	25.8	26.1
Relative Humidity*	60.2	58.1
Wind Speed	2.9m/s at ground (poor exposure at ground)	3.4m/s at 10 metres.

Wind Direction	90	89
Solar Radiation	580	590
TBRG	10mm	20 tips
Battery/Solar	13.7	

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

Note 2: Ignore rainfall tips logged at approximately 0750 EST as these were testing.

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 Services Pty Ltd
ABN 32655577567
Mob 0420316459
Email phil@hydrometric.com.au
www.hydrometric.com.au

HS HYDROMETRIC SERVICES PTY LTD

1/11/2023

Anae Ressos
Veolia Environmental Services (Australia) Pty Ltd

Re – Quarterly service of weather stations

Dear Anae,

As per our service agreement, on the 1/11/23 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 1/11/23

Sensor	**Actual (field)**	**Logger**
Temperature – 10m*	17.6	17.6
2m*	17.6	16.8
Relative Humidity*	64.0	63.2
Wind Speed	1.6 m/s at ground	2.9 m/s at 10 metres
Wind Direction	110	110
Solar Radiation	560	525
TBRG	10mm	20 tips
Battery/Solar	14.2	

* Note 1: Field reading is not inside the radiation shield.
Note 2: Ignore rainfall tips logged at approximately 0750 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 1/11/23

Sensor	**Actual (field)**	**Logger**
Temperature – 10m*	21.0	20.2
2m*	21.0	20.0
Relative Humidity*	53.9	53.1
Wind Speed	1.8m/s at ground (poor exposure at ground)	1.9m/s at 10 metres.

Wind Direction	190	194
Solar Radiation	928	939
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 0850 EST as these were testing.

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 Services Pty Ltd
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www.hydrometric.com.au

HS HYDROMETRIC SERVICES PTY LTD

17/7/2023

Anae Ressos
Veolia Environmental Services (Australia) Pty Ltd

Re – Quarterly service of weather stations

Dear Anae,

As per our service agreement, on the 17/7/23 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 17/7/23

Sensor	**Actual (field)**	**Logger**
Temperature – 10m*	12.0	11.3
2m*	12.0	11.1
Relative Humidity*	87.2	88.0
Wind Speed	0 m/s at ground	0 m/s at 10 metres
Wind Direction	270	270
Solar Radiation	100	97
TBRG	10mm	20 tips
Battery/Solar	14.2	

* Note 1: Field reading is not inside the radiation shield.
Note 2: Ignore rainfall tips logged at approximately 0810 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 17/7/23

Sensor	**Actual (field)**	**Logger**
Temperature – 10m*	17.8	18.0
2m*	17.8	16.0
Relative Humidity*	75.5	75.6
Wind Speed	0.8m/s at ground (poor exposure at ground)	1.7m/s at 10 metres.

Wind Direction	270	270
Solar Radiation	300	305
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 1020 EST as these were testing.

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.

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APPENDIX C:

FIELD AMBIENT ODOUR ASSESSMENT PLOT AND FIELD SHEET

(27 FEBRUARY 2024)

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

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

Survey Date: 27 February 2024
Survey Time Period: 1435 hrs to 1529 hrs

THE ODOUR UNIT PTY LTD
Level 3, 12/56 Church Avenue
MASCOT, NSW 2020
Phone: (02) 9209 4420
www.odourunit.com.au

DRAWN BY	I. FARRUGIA	08/03/2024
CHECKED	J. SCHULZ	13/03/2024
APPROVED	J. SCHULZ	13/03/2024

Odour Audit XLII

Field Ambient Odour Assessment Survey

Plot No. N1473-XLII

Job No. N1473L

N

Local wind direction

Local wind conditions

Light to moderate wind speeds, with winds blowing from the southeast. No rainfall observed.

Refer to **FAOA Logsheet N1473-XLII** 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
Internet: www.odourunit.com.au
ABN: 53 091 165 061

Field Ambient Odour Assessment Log Sheet

Date: 27 February 2024 **Assessor:** I. Farrugia **Weather Conditions:** Light to moderate wind speeds blowing from the east-southeast. Overcast skies. No rainfall observed.

Survey Reference Plot No: N1473L-XLII							
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	14:35 – 14:40 hrs	ESE	2 - 3 m/s	N	--	0	--
2	14:43 – 14:48 hrs	ESE	2 – 4 m/s	N	--	0	--
3	14:50 – 14:55 hrs	SE	2 – 3 m/s	N	--	0	--
4	15:00 – 15:05 hrs	ESE	2 – 4 m/s	N	--	0	--
5	15:07 – 15:12 hrs	E	2 – 4 m/s	N	--	0	--
6	15:16 – 15:21 hrs	E	2 – 3 m/s	N	--	0	--
7	15:24 – 15:29 hrs	SE	2 – 3 m/s	N	--	0	--