ACOUSTICS AND AIR

VISY RESOURCE RECOVERY FACILITY

OPERATIONAL AIR QUALITY MANAGEMENT PLAN

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VISY INDUSTRIES
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This firm is a member firm of the Clean Air Society of Australia and New Zealand and the work here reported has been carried out in accordance with the terms of that membership.

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Wilkinson Murray is an independent firm established in 1962, originally as Carr & Wilkinson. In 1976 Barry Murray joined founding partner Roger Wilkinson and the firm adopted the name which remains today. From a successful operation in Australia, Wilkinson Murray expanded its reach into Asia by opening a Hong Kong office early in 2006. Today, with offices in Sydney, Newcastle, Wollongong, Orange, Queensland and Hong Kong, Wilkinson Murray services the entire Asia-Pacific region.

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GLOSSARY OF AIR QUALITY TERMS

Air Pollution – The presence of contaminants or pollutant substances in the air that interfere with human health or welfare, or produce other harmful environmental effects.

Air Quality Standards – The level of pollutants prescribed by regulations that are not to be exceeded during a given time in a defined area.

Air Toxics – Any air pollutant for which a national ambient air quality standard (NAAQS) does not exist (i.e. excluding ozone, carbon monoxide, PM-10, sulphur dioxide, nitrogen oxide) that may reasonably be anticipated to cause cancer; respiratory, cardiovascular, or developmental effects; reproductive dysfunctions, neurological disorders, heritable gene mutations, or other serious or irreversible chronic or acute health effects in humans.

Airborne Particulates – Total suspended particulate matter found in the atmosphere as solid particles or liquid droplets. Chemical composition of particulates varies widely, depending on location and time of year. Sources of airborne particulates include dust, emissions from industrial processes, combustion products from the burning of wood and coal, combustion products associated with motor vehicle or non-road engine exhausts, and reactions to gases in the atmosphere.

Area Source – Any source of air pollution that is released over a relatively small area, but which cannot be classified as a point source. Such sources may include vehicles and other small engines, small businesses and household activities, or biogenic sources, such as a forest that releases hydrocarbons, may be referred to as nonpoint source.

Concentration – The relative amount of a substance mixed with another substance. Examples are 5 ppm of carbon monoxide in air and 1 mg/l of iron in water.

Emission – Release of pollutants into the air from a source. We say sources emit pollutants.

Emission Factor – The relationship between the amount of pollution produced and the amount of raw material processed. For example, an emission factor for a blast furnace making iron would be the number of pounds of particulates per ton of raw materials.

Emission Inventory – A listing, by source, of the amount of air pollutants discharged into the atmosphere of a community; used to establish emission standards.

Flow Rate – The rate, expressed in gallons -or litres-per-hour, at which a fluid escapes from a hole or fissure in a tank. Such measurements are also made of liquid waste, effluent, and surface water movement.

Fugitive Emissions – Emissions not caught by a capture system.

Hydrocarbons (HC) – Chemical compounds that consist entirely of carbon and hydrogen.

Hydrogen Sulphide (H_2S) – Gas emitted during organic decomposition. Also, a by-product of oil refining and burning. Smells like rotten eggs and, in heavy concentration, can kill or cause illness.

Inhalable Particles – All dust capable of entering the human respiratory tract.

Nitric Oxide (NO) – A gas formed by combustion under high temperature and high pressure in an internal combustion engine. NO is converted by sunlight and photochemical processes in ambient air to nitrogen oxide. NO is a precursor of ground-level ozone pollution, or smog.

Nitrogen Dioxide (NO_2) – The result of nitric oxide combining with oxygen in the atmosphere; major component of photochemical smog.

Nitrogen Oxides (NO_x) – A criteria air polluant. Nitrogen oxides are produced from burning fuels, including gasoline and coal. Nitrogen oxides are smog formers, which react with volatile organic compounds to form smog. Nitrogen oxides are also major components of acid rain.

Mobile Sources – Moving objects that release pollution; mobile sources include cars, trucks, buses, planes, trains, motorcycles and gasoline-powered lawn mowers.

Particulates; Particulate Matter (PM-10) – A criteria air pollutant. Particulate matter includes dust, soot and other tiny bits of solid materials that are released into and move around in the air. Particulates are produced by many sources, including burning of diesel fuels by trucks and buses, incineration of garbage, mixing and application of fertilizers and pesticides, road construction, industrial processes such as steel making, mining operations, agricultural burning (field and slash burning), and operation of fireplaces and woodstoves. Particulate pollution can cause eye, nose and throat irritation and other health problems.

Parts Per Billion (ppb)/Parts Per Million (ppm) – Units commonly used to express contamination ratios, as in establishing the maximum permissible amount of a contaminant in water, land, or air.

PM10/PM2.5 – PM10 is measure of particles in the atmosphere with a diameter of less than 10 or equal to a nominal 10 micrometers. PM2.5 is a measure of smaller particles in the air.

Point Source – A stationary location or fixed facility from which pollutants are discharged; any single identifiable source of pollution; e.g. a pipe, ditch, ship, ore pit, factory smokestack.

Scrubber – An air pollution device that uses a spray of water or reactant or a dry process to trap pollutants in emissions.

Source – Any place or object from which pollutants are released.

Stack – A chimney, smokestack, or vertical pipe that discharges used air.

Stationary Source – A place or object from which pollutants are released and which does not move around. Stationary sources include power plants, gas stations, incinerators, houses etc.

Temperature Inversion – One of the weather conditions that are often associated with serious smog episodes in some portions of the country. In a temperature inversion, air does not rise because it is trapped near the ground by a layer of warmer air above it. Pollutants, especially smog and smog-forming chemicals, including volatile organic compounds, are trapped close to the ground. As people continue driving and sources other than motor vehicles continue to release smog-forming pollutants into the air, the smog level keeps getting worse.

1 INTRODUCTION

1.1 Overview

Visy is an integrated packaging, paper and resource recovery company operating in Australia for over 70 years and with over 120 sites throughout Australasia. Across Australia, Visy processes recyclables from more than 3 million households and workplaces in any year and in FY2017-18 Visy's recycled paper machines produced over 809,000 tonnes of 100% recycled paper.

Visy has provided recycling services to eastern Sydney and beyond since the late 1990s and in 2020 received approval to develop a modern dry recyclables facility at Alexandria to replace their St Peters facility. The Visy Alexandria Dry Recyclables Transfer Facility (AxTRF; the facility/site) will be developed in two stages:

- Stage 1 - recyclable material transfer facility which receives:
    - Up to 110,000 tonnes per annum (tpa) of fully commingled recyclable material (FCM) from kerbside collections for consolidation and transfer to Visy's network of material recovery facilities (MRFs); and
    - Up to 45,000 tpa of source-separated paper and cardboard (P&C) from commercial businesses and compacts the loose material into bales (baling operation) for transfer to Visy's network of recycled paper machines; and
- Stage 2 - addition of a MRF to separate FCM into various recyclable material streams such as paper/cardboard, plastics, glass, steel and aluminium.

The facility was granted development approval SSD-10364 on 22 April 2020.

The facility operates under Environmental Protection Licence (EPL) 21359 issued on 20 October 2020.

1.2 Purpose of this Report

Wilkinson Murray Pty Limited has been engaged by Visy to provide an Operational Air Quality Management Plan (OAQMP) for Stage 1 of the Dry Recyclables Facility (DRF).

The purpose of this OAQMP is to provide air quality management procedures to from part of the AxTRF Operational Environmental Management Plan (OEMP).

This OAQMP has been prepared to address the Conditions of Approval (CoA) for the AxTRF as presented in Table 1-1.

Table 1-1 Conditions of Approval

CoA	Requirement	OAQMP Reference
B19	The Applicant must install and operate equipment in line with best practice to ensure that the development complies with all load limits, air quality criteria/air emission limits and air quality monitoring requirements as specified in the EPL applicable to the site.	Noted
B22	Prior to the commencement of operation, the Applicant must prepare an Operational Air Quality Management Plan (OAQMP) to the satisfaction of the	Noted

CoA	Requirement	OAQMP Reference
	Planning Secretary. The OAQMP must form part of the OEMP required by Condition C5 and must:	
B22(a)	be prepared in consultation with the EPA and by a suitably qualified, experienced and independent expert whose appointment has been endorsed by the Planning Secretary	EPA's general terms of approval for operational management is addressed in this plan.
B22(b)	include an air quality and odour monitoring program, which details: i. the location, frequency and duration of monitoring which adequately represents the sensitive receptors; ii. the provision of appropriate monitoring; iii. key performance indicators for monitoring;	Section 5
B22(c)	include an air quality and odour mitigation strategy which: i. details proactive measures to minimise odour and air quality impacts; ii. identifies trigger levels for remedial action; iii. details the remedial action that will be taken if trigger levels are exceeded	Section 4 And Section 5
B22(d)	describe protocols for record keeping and compliance reporting;	Section 6
B22(e)	describe protocols for the review and revision of the plan to ensure any controls remain effective over time.	Section 6
B23	The Applicant must: (a) not commence operation until the OAQMP required by Condition B22 is approved by the Planning Secretary; and (b) implement the most recent version of the OAQMP approved by the Planning Secretary for the duration of operation.	Noted
B24	The Applicant must ensure the development does not cause or permit the emission of any offensive odour (as defined in the POEO Act).	Section 4 and Section 5.2.2

To satisfy CoA B22(a), Visy has engaged Ramboll Australia Pty Ltd (Ramboll) to provide an independent review of the OAQMP. Ramboll's review of the OAQMP (Version B, dated 14 October 2020) is included as Appendix A. This version includes appropriate updates as recommended by Ramboll.

2 GOALS

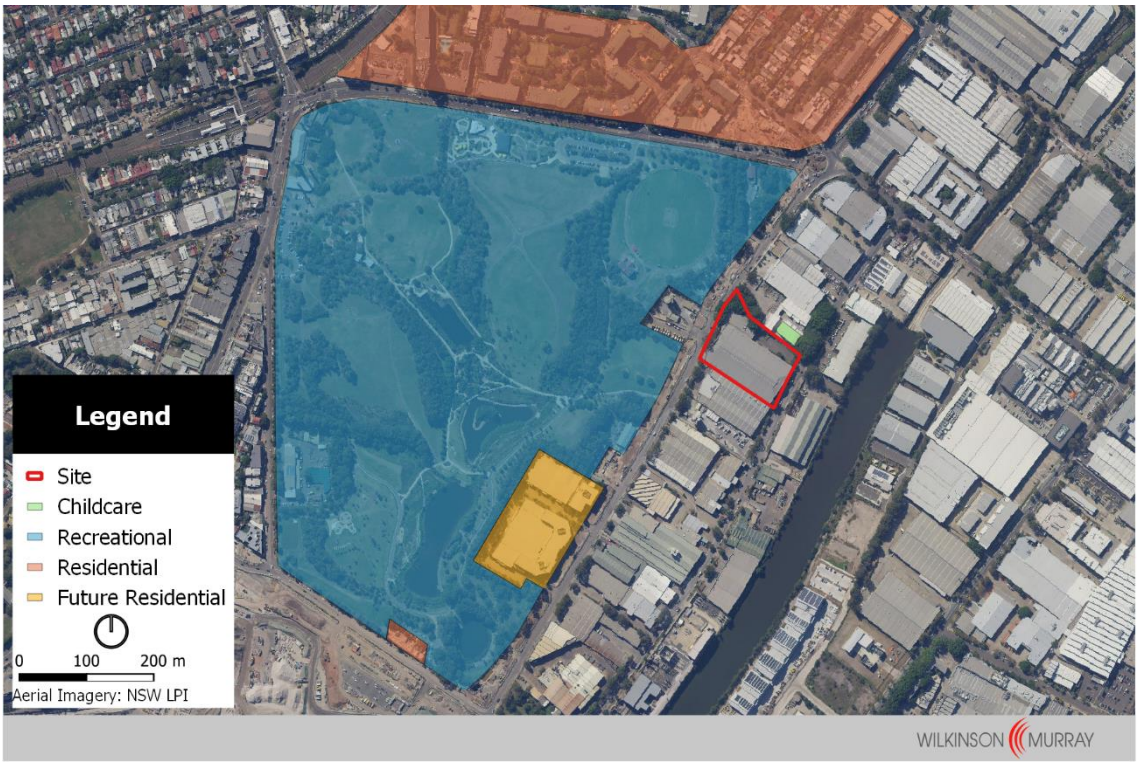
Dust and odour are identified as the most likely potential air quality impacts associated with the operation of the AxTRF . The main goals of the OAQMP are to identify and document operational measures for the AxTRF to minimise:

- Dust and odour emissions from the Site during operations; and,
- Potential dust and odour impacts at nearby sensitive receptors.

2.1 Sensitive Receptors

Sensitive receptors near the Site were identified in the Air Quality Impact Assessment (AQIA) prepared for the EIS and are shown in Figure 2-1.

Figure 2-1 Sensitive Receptors



2.2 Air Pollutant Goals

Impact assessment criteria for dust and odour were established in the AQIA in accordance with the *Approved Methods for the Modelling and Assessment of Air Pollutants in NSW* (EPA, 2016) and are adopted as the goals for this OAQMP.

2.2.1 Dust

The impact assessment criteria for particulate matter (i.e. dust) are presented in Table 2-1.

Table 2-1 Impact assessment criteria – criteria pollutants

Pollutant	Averaging period	Impact	Criteria
Particulate matter ≤10 µm (PM_{10})	Annual	Total	25 µg/m³
	24 hours	Total	50 µg/m³
Particulate matter ≤2.5 µm ($PM_{2.5}$)	Annual	Total	8 µg/m³
	24 hours	Total	25 µg/m³

The criteria in Table 2-1 relate to the total concentrations of pollutants in the air and not just that from the AxTRF. Therefore consideration should be given to ambient dust concentrations. The Office of Environment and Heritage (OEH) air quality monitoring stations (AQMS) located at Earlwood and Randwick are the nearest AQMS to the AxTRF. Data from these locations should be used to consider ambient dust levels.

2.2.2 Odour

The odour goal for the AxTRF is prescribed in condition B24, which states:

"The Applicant must ensure the development does not cause or permit the emission of any offensive odour (as defined in the POEO Act)."

2.3 Roles and Responsibilities

Overall roles and environmental responsibilities are outlined in the OEMP. The Site Manager is responsible for the implementation of the OAQMP.

3 EXISTING ENVIRONMENT AND OPERATIONAL IMPACTS

3.1 Local Climate

Meteorological conditions strongly influence air quality. Most significantly, wind speed, wind direction, temperature, relative humidity, and rainfall affect the dispersion of air pollutants. The following sub-sections discuss the local meteorology near the Proposal site.

3.1.1 Temperature Humidity and Rainfall

Long term meteorological data for the area surrounding the site is available from the Sydney Airport weather station operated by the Bureau of Meteorology (BoM). The Sydney Airport weather station is located approximately 4 km south-west of the Site and records observations of a number of meteorological data include wind speed, wind direction, temperature, humidity and rainfall.

Long-term climate statistics are presented in Table 3-1. Temperature data recorded at the Sydney Airport weather station indicates that January is the hottest month of the year, with a mean daily maximum temperature of 26.7°C. July is the coolest month with a mean daily minimum temperature of 7.3°C. June is the wettest month with an average rainfall of 125 mm falling over 9 days. There are, on average, 96 rain days per year, delivering 1,081 mm of rain.

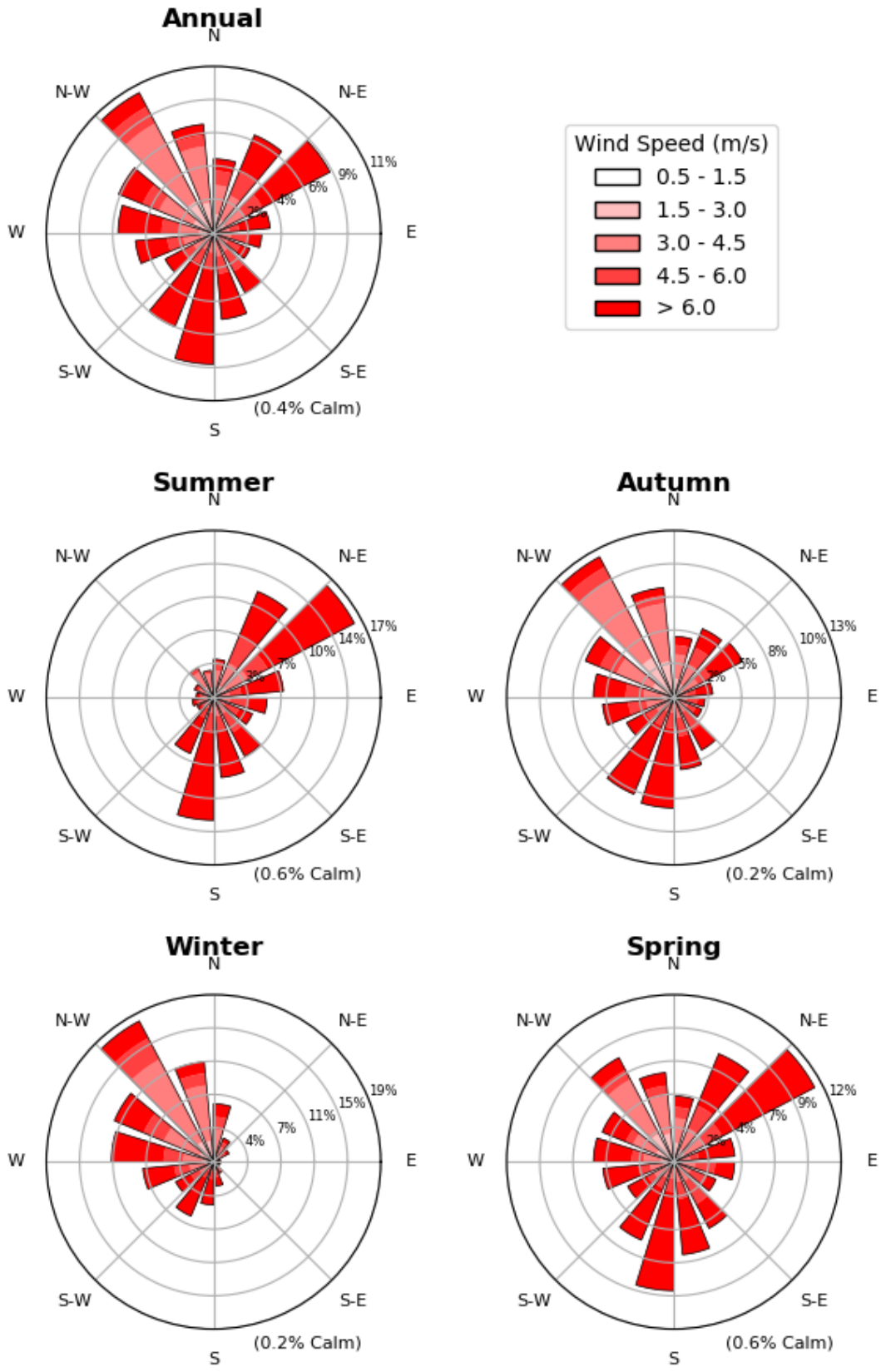
Table 3-1 Climate Averages for Sydney Airport

Obs.	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
9am Mean Observations													
Temp (°C)	22.4	22.3	21.1	18.2	14.6	11.9	10.8	12.5	15.7	18.4	19.9	21.6	17.4
Hum (%)	70	73	73	71	73	74	71	65	62	61	64	66	69
3pm Mean Observations													
Temp (°C)	24.8	24.8	23.9	21.7	19.0	16.6	16.1	17.2	19.0	20.7	22.1	23.9	20.8
Hum (%)	60	63	61	59	58	57	52	49	51	54	56	58	57
Daily Minimum and Maximum Temperatures													
Min (°C)	19.0	19.1	17.6	14.3	11.0	8.7	7.3	8.2	10.6	13.3	15.5	17.6	13.5
Max (°C)	26.7	26.5	25.4	23.0	20.2	17.6	17.2	18.4	20.7	22.7	24.2	25.9	22.4
Rainfall													
Rain (mm)	94.5	111.1	117.9	106.8	95.1	125.3	68.6	75.7	60.0	70.6	80.6	73.6	1081.1
Rain (days)	8.1	8.6	9.4	8.4	8.3	8.9	6.6	6.7	6.8	7.9	8.3	7.8	95.8

3.1.2 Wind

Observations of wind speed and direction from the Sydney Airport weather station have been selected to represent typical wind patterns in the area surrounding the site. Figure 3-1 presents annual and seasonal "wind rose" plots for the Sydney Airport weather station for the period 2014 to 2018, inclusive. The plots show that north-westerly winds are prevalent for much of the year, with easterly and south easterly winds also being prevalent in summer and spring.

Figure 3-1 Windrose Plot – Sydney Airport, 2014-2018



3.2 Local Ambient Air Quality

No site-specific data are available to determine the existing concentrations of air pollutants at sensitive receptors near the Proposal. The NSW Office of Environment and Heritage (OEH) operates a network of air quality monitoring stations (AQMS) across NSW. The nearest OEH AQMS is located approximately 5 kilometres west of the Proposal site, at Earlwood.

A summary of the ambient air quality monitoring data for particulate matter collected at the Earlwood AQMS during 2018 is presented in Table 3-2.

Table 3-2 Ambient air quality monitoring results, 2018

Pollutant	AQMS	Averaging Period	Concentration ($\mu g/m^3$)
PM_{10}	Earlwood	24-hours	40.3
		Annual	19.8
$PM_{2.5}$	Earlwood	24-hours	23.5
		Annual	7.8

It is noted that ambient PM_{10} and $PM_{2.5}$ concentrations during 2018 were elevated. This is especially the case for $PM_{2.5}$ where the maximum 24-hour average and annual average $PM_{2.5}$ concentrations accounted for more than 90% of the impact assessment criteria. As noted in the *NSW Annual Air Quality Statement 2018*, particle pollution was elevated in 2018 due to "*… more frequent exceptional events, such as dust storms, bushfires and hazard reduction burns.*"

3.3 Predicted Operational Air Quality Impacts

Predicted air quality impacts associated with the operation of the AxTRF were presented in the AQIA.

The AQIA concluded that air quality impacts associated with the operation of the AxTRF would be low and would generally comply with the applicable impact assessment criteria. Due to high existing ambient $PM_{2.5}$ concentrations, the predicted total annual average $PM_{2.5}$ concentrations at two nearby receptors exceeded the impact assessment criterion. However, as shown in a contemporaneous assessment of 24-hour average $PM_{2.5}$ impacts, the operation of the AxTRF has a very small contribution to total $PM_{2.5}$ concentrations at nearby sensitive receptors and would not lead to additional exceedances of the $PM_{2.5}$ goals.

4 AIR QUALITY MANAGEMENT MEASURES

AxTRF is a modern dry recyclables facility that was designed and approved in accordance with current requirements and expectations for a resource recovery and waste storage facility. This includes specific design engineering controls that provide high level mitigation for air quality (including odour), which are:

- Operations fully contained within the operations building with rapid doors at entry and exit that open to permit truck passage and close immediately afterwards
- Building ventilation system comprising 2 fans above the inbound weighbridge and 1 above the outbound weighbridge discharging to 3 elevated roof exhaust vents with air intake via 3 disused doorways fitted with louvres; and
- One way traffic flow through the facility with separate entry and exit doors, inbound and outbound weighbridges, and FCM and P&C receival bays to promote efficiency and minimise time on site for recyclable trucks.

The facility operation also includes a range of mitigation and management controls relevant to air quality and odour. Specific measures to minimise air quality impacts during the operation of the AxTRF are identified in Table 4-1. These include management and mitigation measures from the Development Consent (in bold) as well as additional operations measures from the AxTRF management plans.

Table 4-1 Management Measures

Measure	Responsibility
Contain all operations activities and waste material within the fully enclosed building.	Site Manager
Install vehicle exhaust system for the facility that provides point source air emissions via three roof vents with exhaust stacks at approximately roof ridge height and no fugitive emissions from the facility.	Design control
Refuse putrescible waste onto the site and if any such contamination is found, promptly remove the putrescible in accordance with Visy's materials handling processes set out in section 2 of the EIS	Site Manager
Accept only dry recyclable waste material onto the site with no onsite stockpiling other than in accordance with Visy's material handling processes	Site Manager
Signage directing to turn off engines for stationary bulk haul trucks during loading and mobile plant when not in use	Site Manager
Signage directing to turn off engines for recyclable collection trucks if expecting to be stationary longer than 1 minute	Site Manager
Signage directing trucks directed to the staging area inside the building to turn off their engines.	Site Manager
Minimise the time recyclable collection trucks take to unload and exit the facility.	Design control Site Manager
Provide facilities that encourage employees to use alternative to and from work options including bicycles.	Site Manager

Maintain the throughput of the product and ensure the product is removed from site as soon as possible to minimise potential odours.	Site Manager
Install rapid doors to help any odour from escaping outside the building.	Design control
Vehicles and mobile plant engines switched off when not in use	Site Manager
On-site plant and machinery maintained and serviced according to the manufacturer's specifications.	Site Manager
Visually monitor fugitive dust emission from site to ensure no visible airborne dust escaping from building doorways	Site Manager
Regular cleaning of operational hardstand areas.	Site Manager
Induction and/or training of staff and personnel in the controls to minimise dust and odour generation.	Site Manager
Incorporate "push walls" to enable loaders to remove material from corners of building.	Site Manager
Regular cleaning of FCM receival bay to ensure no stagnant material remains in corners or along walls.	Site Manager
Ensure material residence time on-site is less than 48	Site Manager

5 AIR QUALITY MONITORING

5.1 Regular Monitoring Program

Monitoring for air quality impact will involve regular inspections of sensitive areas and activities during AxTRF operations. Visy proposes to conduct routine inspections as per the frequency stated in Table 5-1 for the performance indicators identified.

Table 5-1 Air Quality Inspections

Inspection	Frequency	Performance Indicator
Plant/equipment inspections including maintenance and emissions	Prior to use via pre-start check	Plant/equipment maintained in line with requirements for cleanliness and emissions
Site inspections for visible dust emissions and dust deposits on surfaces	Weekly	Minimal visible dust emissions and deposits on surfaces
Site boundary inspection to detect odour	Weekly or when contaminated load detected	No offensive odour from facility evident on site boundary

Site inspections for the purposes of identifying visible dust emissions and/or deposits may be conducted by any suitably trained/inducted staff.

It is noted that personnel who have identified loads contaminated with odorous materials may have a lower sensitivity to odours for some time after initial exposure. Therefore, site inspections for the purposes of identifying odour impacts may be conducted by any suitable trained/inducted staff and, where practicable, should ideally be conducted by a person who is able to objectively assess potential odour.

Where monitoring identifies non-conformance with a performance indicator, remedial action must be taken to address in line with the contingency plan requirements outlined in the OEMP.

5.2 Monitoring in Response to Complaints / Non-conformance

5.2.1 Dust

In the event that AxTRF operations are considered likely to be generating off-site dust impacts, identified through either site inspections or verified complaints, a "continuous" dust monitoring campaign should be implemented.

The monitoring campaign should be undertaken by a suitably qualified specialist and be able to verify dust impacts associated with the operation of the AxTRF and whether these comply with the impact assessment criteria.

The monitoring location(s) should have regard for the location of potential dust generating activities and the escape route of fugitive dust from the building, the prevailing weather conditions and the location(s) where dust impacts have been identified. Where practicable, all monitoring equipment should be sited in general accordance with *AS/NZS 3580.1. – 2003, Guide to Siting Air Monitoring Equipment*.

The monitoring equipment should be capable of measuring $PM_{2.5}$ and PM_{10} concentrations and providing notifications when levels exceed certain threshold values. The notifications should be provided in a timely fashion, say within one hour, to facilitate the implementation of reactive management. It is recommended that optical type equipment, such as an Aeroqol Dust Sentry (or similar), is used for the monitoring. While it is noted that these units are not strictly in accordance with the *Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales* (EPA, 2007), they are considered appropriate for use in this application as they can provide data in near real-time, have a small footprint and have significantly lower capital costs compared to other equipment.

The trigger levels in Table 5-2 are proposed for reactive management during any continuous monitoring campaign. These values have been developed with a view to ensuring that ambient dust and particulate matter concentrations in the surrounding area comply with the impact assessment criteria but are expressed in time scales short enough to support reactive management. Similar trigger levels have been used for large dust generating activities in NSW.

Table 5-2 Reactive Management Trigger Levels

Trigger Stage	Averaging Period	Trigger Value (µg/m³)		Action Required
		$PM_{2.5}$	PM_{10}	
1 Investigate	1 hour	45	85	Site Manager to undertake review of possible dust sources operating during the average period. Identify possible measures for these activities; action if deemed necessary.
	3 hour	40	80	
2 Action	1 hour	235	470	Site Manager to attend site and ensure implementation of the control. Effectiveness of control actions to be reviewed and escalate where appropriate.
	3 hour	80	160	
3 Stop Work	1 hour	470	940	Targeted shut down of dust-generating activities until the measured pollutant levels are below the stated trigger value. Identify long-term solutions to dust issues.
	3 hour	160	320	

5.2.2 Odour

In the event that AxTRF operations are considered likely to be generating off-site odour impacts, identified through either site inspections or verified complaints, an odour audit will be conducted using field olfactometry.

The duration of an odour audit will be the greater of one week, or the time necessary to meet the performance indicator (discussed below). During an odour audit, field odour measurements will be conducted twice daily along the site boundary and in the area immediately surrounding the site to identify the intensity and character of odours generated by the AxTRF, or to verify that no such odours are detectable.

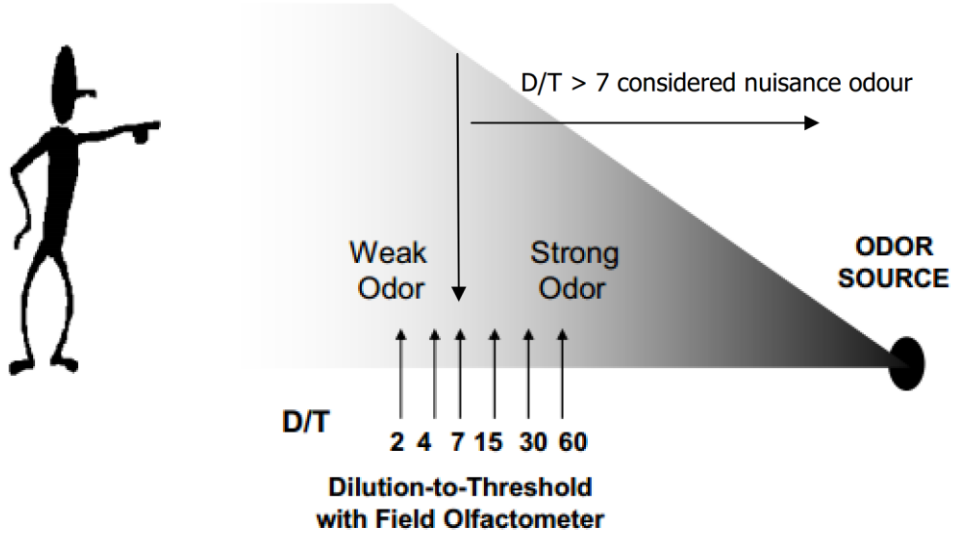
Odour measurements will be conducted by a NATA accredited field engineer using dynamic olfactometry and suitable equipment, such as a St. Croix Sensory Nasal Ranger Field Olfactometer. The Nasal Ranger quantifies odour in the air by mixing the odorous ambient air with odour-free (carbon) filtered air. Field olfactometry defines each discrete dilution level as a "Dilution-to-Threshold," D/T, ratio. The "Dilution-to-Threshold" ratio is a measure of the number of dilutions needed to make the odorous ambient air "non-detectable".

Field olfactometry calculates the "Dilution-to-Threshold" (D/T) ratio as:

$$D/T = \frac{Volume\ of\ Carbon\ Filtered\ Air}{Volume\ of\ Odorous\ Air}$$

The Nasal Ranger Field Olfactometer measured odour D/T values of 2, 4, 7, 15, 30 and 60. Figure 5-1 shows the human response to D/T values. A D/T value greater than 7 is typically considered a nuisance odour. Therefore, a D/T value of 7 beyond the site boundary is adopted as the indicator of acceptable performance.

Figure 5-1 Dilution-to-Threshold with Field Olfactometer



6 REPORTING, REVIEW AND IMPROVEMENT

6.1 Complaints

Complaints relating to air quality will be handled in accordance with the procedures provided in the OEMP.

Complaints regarding environmental impacts of the facility can be made in a number of ways:

1. Direct to Visy via the phone number provided on the site signage which is a Visy Recycling complaints hotline;
2. Via the EPA 'Environment line' phone number; and
3. Via the DPIE NSW Planning Portal project webpage. (https://www.planningportal.nsw.gov.au/major-projects/project/20936)

Complaints made to EPA and DPIE may be forwarded to Visy as determined by the EPA and DPIE. A complaint received by Visy is recorded, including the complainant's name, phone number and address (if provided) and description of the issue. The complaint record is then passed onto the Site Manager and put into the site complaints reporting register.

The Site Manger will then undertake (or delegate) an investigation of the issue to determine whether the facility operation is the probable cause. For air quality complaints, the investigation will include obtaining weather and air quality data from nearby OEH and BoM monitoring stations. If action is required from the facility, a contingency plan is developed, including appropriate corrective actions and a timeframe to address the issue. The complainant will be updated on actions taken to resolve the issue as requested and if a contact phone number has been provided. The information will be recorded in the environmental reporting register.

6.2 Training

An overview of induction and training for all employees and contractors working on site is given in the OEMP. The induction and/or training will address elements related to air quality management, including:

- Existence and requirements of this OAQMP;
- Relevant legislation and consent conditions;
- Roles and responsibilities for air quality management;
- Incident response, management and reporting;
- Air quality mitigation and management measures;
- Locations of sensitive receivers; and,
- Complaints handling process.

6.3 Review and Improvement

Management reviews will be undertaken as a result of:

- Changes to key personnel or resources

- Significant changes to site conditions and/or work methods
- Occurrence of a reportable environmental incident or near miss
- Identification of non-compliances with conditions of consent
- Changes to legal, contract or other obligations.

The reviews will be initiated by the Site Manager and include relevant site employees and stakeholders.

The review of the OAQMP will include:

- Consideration of monitoring and inspection results;
- Consideration of recent and relevant incidents and any lessons learnt;
- Consideration of any new regulatory obligations;
- Consideration of any recorded air quality complaints;
- A review of the effectiveness of environmental controls;
- Consideration of changes in operational needs such as resourcing; and
- Feedback from relevant stakeholders.

The outcomes of the environmental reviews may trigger the amendments to this OAQMP and related documentation, as well as input into other project documents.

6.4 Record keeping and Reporting

Records of all environmental inspections, performance reviews and other relevant environmental records are kept to demonstrate environmental due diligence and compliance with this OEMP and conditions of approval. These include:

- Site inspections
- Non-conformance and contingency plans
- Complaints
- Environmental incidents and response actions
- Safety data sheets and chemical registers
- Waste classification

The annual Visy internal audit will include review of AxTRF environmental performance and any non-conformances and resulting corrective actions. It will also include any issues or complaints received and investigation and corrective actions in line with the protocol described in this OEMP.

APPENDIX A

INDEPENDENT PEER REVIEW

ENVIRONMENT
& HEALTH

Anne Trevena
Environmental Manager
Build Run Repair
(a member of the Visy group companies)

Visy Alexandria Dry Recyclables Facility Operational Air Quality Management Plan Peer Review

Date 27/11/2020

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1 Introduction

Visy Industries Australia Pty Ltd (Visy) propose to construct and operate a Dry Recyclables Facility (DRF) to be located at 112-120 Euston Road, Alexandria in the City of Sydney (referred to as the AxTRF). The AxTRF will receive and process up to 155,000 tonnes per annum (tpa) of commingled recyclable materials, from kerbside collections, and source-separated cardboard and paper from commercial collections.

The proposed AxTRF is classified as a State Significant Development (SSD) under Part 4 of the *Environmental Planning and Assessment Act 1979* (EP&A Act) as it meets the criteria in Clause 23(3) of Schedule 1 in State Environmental Planning Policy (State and Regional Development) 2011, being the construction and operation of resource recovery or recycling facility that handles more than 100,000 tpa of waste. Consequently, the proposal has been subject to assessment by the Minister for Planning and Public Spaces as the consent authority.

An Air Quality Impact Assessment (AQIA) was prepared to address the relevant Secretary's Environmental Assessment Requirements (SEARs) in support of the Environment Impact Statement (EIS) for the proposed AxTRF, which concluded that there is general compliance with the applicable impact assessment criteria. An Operational Air Quality Management Plan (OAQMP) has subsequently been developed, detailing the proposed management and mitigation measures to control against potential air quality impacts during operation of the AxTRF.

The Department of Planning, Industry and Environment (DPIE) has requested Visy provide an independent review of the OAQMP, to achieve compliance with Condition B22(a) of the Development Consent, which requires the OAQMP be prepared by "*a suitably qualified, experienced and independent expert whose appointment has been endorsed by the Planning Secretary*". To this end, Build Run Repair (on behalf of Visy) has engaged Ramboll Australia Pty Ltd (Ramboll) to undertake an independent peer review of the OAQMP for the AxTRF.

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This letter report outlines the findings of Ramboll's high level desktop review of the OAQMP report, commenting on the suitability of the proposed air quality management and mitigation measures in relation to the proposed AxTRF. Consideration has been given to the appropriateness of the following components:

- The location, frequency and duration of monitoring;
- Key performance indicators for the monitoring program;
- Mitigation measures to minimise odour and air quality impacts;
- Trigger levels for remedial action;
- Remedial actions to be undertaken if trigger levels are exceeded;
- Protocols for record keeping and compliance reporting; and
- Protocols for the review and revision of the plan to ensure any controls remain effective over time.

2 Limitations

This peer review has been prepared for Visy in accordance with the scope of work as outlined in our proposal to Visy dated 13 November 2020 and in accordance with our understanding and interpretation of current regulatory standards.

These review works have been based solely on the subject documents provided to Ramboll. The conclusions presented in this report represent Ramboll's professional judgement based on information made available during the course of this assignment and are true and correct to the best of our knowledge as at the date of the review.

This report has been prepared based on a desktop review of the subject documents and does not represent a complete basis of preparation for expert witness testimony. This report does not purport to give legal advice. This advice can only be given by qualified legal advisors.

The review focuses on investigating whether there are matters of potential material significance, rather than seeking to explore potential minor improvements. The proposed management and mitigation measures have been considered in relation to ambient air quality impacts; review of the engineering and/or process design of the proposed mitigation measures is not included in the scope of this review.

Except where expressly stated, Ramboll did not attempt to verify the accuracy, validity or comprehensiveness of any information supplied to Ramboll for its report. While Ramboll has no reason to doubt the accuracy of the information provided to it, the report is complete and accurate only to the extent that the information provided to Ramboll was itself complete and accurate. Ramboll acts in a professional manner and exercises all reasonable skill and care in the provision of its professional services. We are under no obligation in any circumstance to update this report, in either oral or written form, for events occurring after the report has been issued in final form.

The reports are commissioned by and prepared for the exclusive use of Visy. They are subject to and issued in accordance with the agreement between Visy and Ramboll, who are not responsible for any liability and accept no responsibility whatsoever arising from the misapplication or misinterpretation by third parties of the contents of its reports.

3 Summary of the Air Quality Assessment

The AQIA for the AxTRF was conducted by Wilkinson Murray Pty Ltd, dated 11 February 2020 (Ref: *Appendix B RTS_Air Quality Impact Assessment_C.pdf*). Five sensitive receptors were identified in the study, a childcare centre to the north-east of the site, a recreational parkland located to the west of the

site, existing residential areas to the north and south-west, and a future residential area also located south-west of the site. The AQIA considered impacts associated with the proposed AxTRF (Stage 1) and addition of a future Material Recovery Facility (MRF) to separate commingled recyclables into various material streams (Stage 2).

The primary sources of air pollutants associated with the proposal are the exhaust emissions from trucks and mobile plant operating at the site. The associated air pollutants considered in the AQIA comprise particulates (PM_{10} and $PM_{2.5}$), nitrogen dioxide (NO_2), carbon monoxide (CO), sulphur dioxide (SO_2) and volatile organic compounds (VOC). A ventilation system will be installed in the building to ensure that air pollutants are released via exhaust vents on the roof and not as fugitive releases through external doors. The fans will be operated with varying speeds, depending upon vehicle activity levels within the building. Although the incoming material to the facility is considered generally clean and not odorous, The AQIA also considered odorous emissions from the facility to identify the potential off-site odour impacts in the event of contaminated materials being received.

The US EPA regulatory dispersion model AERMOD was used to predict the ground-level concentrations (GLCs) of odour and the modelled pollutants. The predicted GLCs were compared against the relevant NSW EPA criteria of the *Approved Methods for the Modelling and Assessment of Air Pollutants (AMMAAP) in New South Wales* (NSW EPA 2016). Ambient background concentrations for particulates, NO_2, CO and SO_2 were taken from the nearest NSW Office of Environment and Heritage (OEH) air quality monitoring stations (AQMS) to determine the potential cumulative air quality impacts associated with the proposal.

The results of the cumulative AQIA demonstrate compliance with the applicable impact assessment criteria at each of the sensitive receptor locations, with the exception of the 24-hour and annual average cumulative $PM_{2.5}$ GLCs predicted at nearby receptor locations, due to high existing ambient $PM_{2.5}$ concentrations. However, a contemporaneous assessment of $PM_{2.5}$ emissions indicates the contribution of the proposal to total $PM_{2.5}$ concentrations is very low, and does not result in additional exceedances of the impact assessment criteria at nearby sensitive receptors.

While the results presented in the AQIA have been referenced to provide contextual information in relation to the peer review of the OAQMP, Ramboll has not undertaken a peer review of the AQIA report.

4 Review of the OAQMP

The OAQMP for the proposed AxTRF was prepared by Wilkinson Murray Pty Ltd, dated 14 October 2020 (Ref: *!AxTRF Air Quality MP.pdf*). The OAQMP has been prepared for Stage 1 of the proposal only, with the purpose of providing air quality management procedures to form part of the facility's overarching Operational Environmental Management Plan (OEMP).

4.1 Goals of the OAQMP

The main goals of the OAQMP are to identify and document operational measures for the AxTRF to minimise dust and odour emissions from the Site during operations; and potential dust and odour impacts at nearby sensitive receptors. These goals reflect the findings of the AQIA, targeting the compounds that were predicted to most closely approach the relevant criteria at offsite receptor locations (i.e. PM_{10}, $PM_{2.5}$ and odour). As such, the focus of the OAQMP goals on these emissions is considered appropriate.

The air pollutant goals adopted in the OAQMP for dust align with the impact assessment criteria published in the NSW AMMAAP (NSW EPA, 2016) for PM_{10} and $PM_{2.5}$. The odour goal for the AxTRF reflects Condition B24 of the Development Consent, that the development does not cause or permit the emissions of any offensive odour (as defined in the *Protection of the Environment Operations Act 1997* [POEO Act]). The air quality and odour goals specified in the OAQMP align with the applicable regulations and legislation and are considered appropriate air pollutant goals for the Project.

4.2 Characterisation of Existing Environment

The OAQMP has outlined sensitive receptors and characterised the existing environment in the region of the Project. Ramboll considers the receptors identified and the characterisation of the existing environment to be appropriate.

4.3 Proposed Management Measures

Condition B19 of the Development Consent for the AxTRF states that the Applicant must install and operate equipment in line with best practice to ensure that the development complies with all load limits, air quality criteria/air emission limits and air quality monitoring requirements as specified in the Environmental Protection Licence (EPL) 21359 applicable to the site. The Victorian EPA (VicEPA, 2017) defines best practice as:

> *The best combination of eco-efficient techniques, methods, processes or technology used in an industry sector or activity that demonstrably minimises the environmental impact of a generator of emissions in that industry sector or activity.*

Section 4 of the OAQMP outlines engineering controls and management measures to mitigate air quality impacts associated with operation of the AxTRF, a summary of which is presented in Table 1. In general, with the exception of the proposed site inspection regimes for dust and odour (as discussed in Section 4.4.1), Ramboll considers the proposed measures to be appropriate to manage air emissions associated with operations at the AxTRF and minimise the potential air quality impacts, in accordance with the above definition of best practice. Implementation of the management measures as proposed is expected to result in a low risk of the facility impacting health and/or amenity at offsite sensitive receptor locations in the region.

Table 1: Proposed Management and Engineering Measures

Measure	Air Quality Component	Ramboll Comment
Engineering Measures		
Fully enclosed operations building with rapid doors at entry and exit that open to permit truck passage and close immediately afterwards;	Combustion emissions and odour	Appropriate. The proposed enclosure of the operations building with rapid roller doors and mechanical ventilation complies with the requirements of the AxTRF Environmental Protection Licence (EPL) 21359, as issued by NSW EPA.
Building ventilation system with three elevated roof exhaust vents and air intake via three disused doorways fitted with louvres; and	Combustion emissions and odour	Appropriate
One-way traffic flow through the facility with separate entry and exit doors to minimise time on site for recyclable trucks.	Combustion emissions and odour	Appropriate
Management Measures		
Contain all operations activities and waste material within the fully enclosed building.	Combustion emissions and odour	Appropriate
Install vehicle exhaust system for the facility that provides point source air emissions via three roof vents with exhaust stacks at approximately roof ridge height and no fugitive emissions from the facility.	Combustion emissions and odour	Appropriate
Refuse putrescible waste onto the site and if any such contamination is found, promptly remove the putrescible in accordance with Visy's materials handling processes set out in section 2 of the EIS.	Odour	Appropriate
Accept only dry recyclable waste material onto the site with no onsite stockpiling other than in accordance with Visy's material handling processes.	Odour	Appropriate
Signage directing to turn off engines for stationary bulk haul trucks during loading and mobile plant when not in use.	Combustion emissions and odour	Appropriate
Signage directing to turn off engines for recyclable collection trucks if expecting to be stationary longer than 1 minute.	Combustion emissions	Appropriate
Signage directing trucks directed to the staging area inside the building to turn off their engines.	Combustion emissions	Appropriate
Minimise the time recyclable collection trucks take to unload and exit the facility.	Combustion emissions	Appropriate
Provide facilities that encourage employees to use alternative to and from work options including bicycles.	Combustion emissions	Appropriate
Maintain the throughput of the product and ensure the product is removed from site as soon as possible to minimise potential odours.	Odour	Appropriate
Install rapid doors to help any odour from escaping outside the building.	Odour	Appropriate
Vehicles and mobile plant engines switched off when not in use.	Combustion emissions	Appropriate
On-site plant and machinery maintained and serviced according to the manufacturer's specifications.	Combustion emissions	Appropriate
Visually monitor fugitive dust emission from site to ensure no visible airborne dust escaping from building doorways.	Combustion emissions	Whilst visual inspections of dust are considered appropriate for fugitive dust sources, it should be noted that the AQIA does not indicate the AxTRF is a significant source of fugitive dust emissions and that the majority of dust generated will be from combustion engines. Visual monitoring is not considered an appropriate technique to identify emissions of PM_{10} or $PM_{2.5}$ from combustion sources.
Regular cleaning of operational hardstand areas.	Odour	Appropriate
Induction and/or training of staff and personnel in the controls to minimise dust and odour generation.	Combustion emissions and odour	Appropriate
Incorporate "push walls" to enable loaders to remove material from corners of building.	Odour	Appropriate
Regular cleaning of FCM receival bay to ensure no stagnant material remains in corners or along walls.	Odour	Appropriate
Ensure material residence time on-site is less than 48 hrs.	Odour	Appropriate

4.4 Air Quality Monitoring Program

Condition B22 of the Development Consent states that the OAQMP must include an air quality and odour monitoring program, which addresses the following:

- the location, frequency and duration of monitoring;
- which adequately represents the sensitive receptors;
- the provision for appropriate monitoring; and
- key performance indicators for monitoring.

The Conditions also states that the OAQMP include an air quality and odour mitigation strategy that:

- details proactive measures to minimise odour and air quality impacts;
- identifies trigger levels for remedial action;
- details the remedial action that will be taken if trigger levels are exceeded;

as well as:

- describe protocols for record keeping and compliance reporting; and
- describe protocols for the review and revision of the plan to ensure any controls remain effective over time.

These requirements are addressed in Section 5 of the OAQMP and are discussed in the following sections.

4.4.1 Proposed Monitoring Program

4.4.1.1 Dust

The OAQMP (Table 5-1) outlines regular air quality inspections to be conducted by Visy to determine whether performance indicators relevant to dust impacts are being achieved. These comprise:

- Plant and equipment inspections conducted prior use using a pre-start checklist to ensure plant/equipment is maintained in line with requirements for cleanliness and emissions; and
- Weekly site inspections for visible dust emissions and dust deposits on surfaces to ensure minimal visible dust emissions and deposits on surfaces.

When a non-conformance is detected, the OAQMP states that remedial actions must be taken, through the development of a contingency plan, as outlined in the OEMP.

The plant and equipment inspections conducted prior to use are directly relevant to the emissions sources identified for the AxTRF (i.e. combustion emissions from vehicles) and are considered appropriate.

Weekly site inspections for visible dust emissions and dust deposits on surfaces may be appropriate to assess the cleanliness of the facility, but are not considered a relevant measure to determine whether operations at the site are generating off-site dust impacts. Visible dust deposition is typically associated with fugitive dust emissions from sources such as exposed surface areas or material stockpiles, which Ramboll understands are not associated with operations at the Visy facility. The primary source of dust emissions from the AxTRF is combustion emissions from vehicles (comprising PM_{10} and $PM_{2.5}$). Particles of PM_{10} and $PM_{2.5}$ can be invisible to the naked eye and emissions of these pollutants may not be

identifiable by sight. As such, visual monitoring of dust emissions or dust deposition on surfaces is not considered an appropriate method to monitor PM_{10} or $PM_{2.5}$ emissions.

However, given the AQIA (Wilkinson Murray, 2020a) indicates the risk to health from emissions of particulates from the proposed operations is low, Ramboll considers the proposed management measures (that include ventilation of the facility and use of fast acting roller doors to prevent fugitive emissions, and minimisation of engine operations to reduce combustion emissions) are appropriate to address the potential air quality impacts associated with the AxTRF, and that additional monitoring requirements are not necessary.

4.4.1.2 Odour

The OAQMP (Table 5-1) states that weekly site boundary inspections will be undertaken to detect odour to ensure no offensive odour from the facility evident on the site boundary. When a non-conformance is detected, the OAQMP states that remedial actions must be taken, through the development of a contingency plan, as outlined in the OEMP.

Ramboll understands waste received by the facility will generally be clean and not odorous. However, on occasion, incoming loads may be contaminated and represent a potential source of odour. In these situations, the contaminated load will be removed from the facility as quickly as possible. Given the nature of potential odour sources at the facility, Ramboll considers site boundary inspections may be more appropriately targeted to periods where potentially odorous emission sources are present at the facility (i.e. when a contaminated load is received and during its removal), rather than a weekly schedule.

Ramboll also note the determination of offensive odour is influenced by numerous factors including personal attitudes towards the source, perceived inevitability of the exposure and aesthetic expectations regarding the environment. Furthermore, prior exposure to an odorant can result in an adaptation where the perceived odour intensity decreases on exposure; or alternatively where the perceived intensity increases on repeated exposure. Given these factors, site personnel may not be best placed to identify the perceived offensiveness of an odour detected at the site boundary. However, implementation of the proposed management measures targeting odour emissions (i.e. fast acting roller doors, ventilation, refusal of putrescible waste onsite and prompt removal of contaminated loads), in conjunction with Visy's complaints receival and investigation procedures are considered appropriate measures to manage potential odour emissions from the AxTRF.

4.4.2 Monitoring in Response to Complaints/Non-Conformance

4.4.2.1 Dust

The OAQMP states:

> *In the event that AxTRF operations are considered likely to be generating off-site dust impacts, identified through either site inspections or verified complaints, a "continuous" dust monitoring campaign should be implemented.*

The plan outlines that where possible, monitoring should be done in accordance with *AS/NZS 3580.1. – 2003 Guide to Siting Air Monitoring Equipment.* Dust monitoring will be conducted using an optical type monitor, such as an Aeroqual Dust Sentry (the OAQMP makes reference to an Aeroqol Dust Sentry, although this is believed to be a typographical error). Parameters to be measured include $PM_{2.5}$ and PM_{10} with alarms triggered when threshold levels are exceeded. Ramboll considers the use of the optical monitors to be appropriate for this application.

In relation to the specified trigger thresholds, the appropriateness of the values will be influenced by the distance of the monitor from the source of emissions and sensitive receptor location(s). The trigger levels should be at low enough concentrations to allow adequate response time to reduce the risk of exceeding the PM_{10} and $PM_{2.5}$ air quality goals, but high enough to ensure that the triggers do not disrupt normal operations unnecessarily (without due cause). While the initial values are considered reasonable, Ramboll recommend they be reviewed on a regular basis as more monitoring data becomes available, to evaluate how effective the alarm system is in helping to mitigate dust impacts from the AxTRF.

4.4.2.2 Odour

The OAQMP specifies that in the event of a complaint, an inspection will be performed to confirm that no offensive odours are evident. An odour inspection must indicate no offensive odour is detected at the boundaries of the facility. In addition an audit of one week or more is to be completed using olfactometry. The audit is to be performed by measuring odour twice per day and using a St. Croix Sensory Nasal Ranger Field Olfactometer by a Nata Accredited engineer.

Ramboll considers the use of dynamic olfactometry is appropriate for the purpose of identifying the presence of odours at sensitive receptor locations and identify any changes following implementation of additional control measures. However, Ramboll recommends the OAQMP makes reference to the use of a 'dynamic olfactometer' rather than a specific monitor, to enable selection of the best suited equipment if the need arises and as technology and/or standards progress in this area.

Ramboll also recommend the OAQMP include reference to the collection of meteorological monitoring data (from a representative monitoring site) in conjunction with odour monitoring, given that wind speed and direction are the most important meteorological parameters to measure for the purposes of odour complaints confirmation. As noted in NSW EPA (formerly Department of Environmental and Conservation) (2006), data from an existing meteorological station may be adequate if it is representative of the site in question. However, if a meteorological station is not available, then one may need to be installed for a period of time sufficient to confirm if the particular site is the cause of a chronic problem. It is noted all meteorological stations that are used to collect data for odour complaint verification and modelling should use an anemometer which has a stall speed of equal to or less than 0.5 m/s.

4.5 Remedial Actions

Table 5-2 of the OAQMP details the actions to be taken if dust trigger levels are exceeded. The trigger levels are divided into three stages, investigate, action and stop work and increase in stringency at each stage. The first action is to review possible dust sources and identify possible control measures for these activities. The second level requires the site manager to attend the site and ensure the implementation of the control. The final level requires the shutdown of dust-generating activities until concentration levels of PM_{10} and $PM_{2.5}$ are below the trigger values. Ramboll considers these measure to be appropriate to manage potential dust emissions from the AxTRF.

Ramboll notes that no specific remedial action is specified for odour in Section 5.2.2, however the OAQMP in Section 5.1 notes that '*where monitoring identifies non-conformance with a performance indicator, remedial action must be taken to address in line with the contingency plan requirements outlined in the OEMP*.' Section 6.1 of the OAQMP also states that if action is required from the facility, a contingency plan will be developed, including appropriate corrective actions and a timeframe to address the issue. Ramboll considers these measures to be appropriate for managing odour emissions from the AxTRF.

4.6 Complaints

Section 6.1 of the OAQMP outlines the procedures that will be implemented in the event of a complaint. Complaints can be received directly through Visy's complaints hotline (provided on site signage), via the EPA and/or through the DPIE planning portal. The Site Manager will initiate an investigation for every received complaint to determine the probable entered into the site complaints reporting register.

For air quality complaints, the investigation will include obtaining weather and air quality data from nearby DPIE or Bureau of Meteorology (BoM) monitoring stations. As noted in Section 4.4.1.2, if a representative meteorological station is not available, then one may need to be installed for a period of time sufficient to confirm if the particular site is the cause of a chronic problem. If action is required from the facility, a contingency plan is developed, including appropriate corrective actions and a timeframe to address the issue. The complainant will be updated on actions taken to resolve the issue, as requested.

Ramboll considers the proposed complaints procedure to be in line with the requirements of EPL 21359 and the guidance provided in NSW EPA (2006). Ramboll recommends that any investigation undertaken as a function of a complaint should include, but not be limited to, a review of activities being undertaken, as well as the meteorological conditions when the complaint was made. If the review is not able to rule out the AxTRF operations as the source of emissions that led to the complaint, a monitoring campaign may be warranted.

4.7 Training

The OAQMP provides an overview of the induction and training procedures related to air quality management. Ramboll considers these procedures to be appropriate for the proposal.

4.8 Review and Improvement

The OAQMP outlines the triggers for a review of the air quality management procedures in Section 6.3, including changes to personnel, site conditions or work methods, occurrence of a reportable environmental incident or near miss, identification of non-compliance or changes to legal or other obligations. Consideration will be given to monitoring and inspection results, relevant incidents, review of control effectiveness, regulatory obligations, complaints, operational needs and any relevant feedback.

Ramboll considers the review and improvement measures are appropriate, noting that revisions to documents required under the Development Consent must be submitted to the Planning Secretary for approval within six weeks of the review under Condition C9 of the Development Consent.

4.9 Record Keeping and Reporting

Section 6.4 of the OAQMP outlines the record keeping and reporting procedures for the AxTRF. Records all events will be recorded including inspections, non-compliance and contingency plans, complaints, environmental incidents, safety data sheets and chemical registers and waste classification.

Ramboll considers the record keeping and reporting measures outlined in the OAQMP appropriate for the proposal and notes the OEMP makes reference to a Pollution Incident Response Management Plan (PIRMP) that outlines regulatory notification requirements, in line with the requirements of the Development Consent.

5 Conclusion

The OAQMP outlines engineering controls and management measures to mitigate air quality impacts associated with operation of the AxTRF. With the exception of the proposed site inspection regimes for dust and odour, Ramboll considers the measures outlined in the OAQMP to be appropriate to manage air emissions associated with operations at the facility and minimise the potential air quality impacts.

With regard to the propose proposed site inspections for dust and odour emissions, Ramboll notes the following:

- Weekly site inspections for visible dust emissions and dust deposits on surfaces may be appropriate to assess the cleanliness of the facility, but are not considered a relevant measure to determine whether operations at the site are generating off-site impacts from PM_{10} and $PM_{2.5}$ emissions generated as a result of vehicle operations. However, given the AQIA indicates the risk to health from emissions of particulates from the proposed operations is low, Ramboll considers the proposed management measures (namely ventilation of the facility, use of fast acting roller doors and minimisation of engine operations) are appropriate to address the potential air quality impacts associated with the AxTRF, and that additional monitoring requirements are not necessary.

- Ramboll considers site boundary inspections to identify the presence of offensive odour may be more appropriately targeted to periods where potentially odorous emission sources are present at the facility (i.e. when a contaminated load is received and during its removal), rather than a weekly schedule. However, given the inherent uncertainties associated with the identification of odour impacts, Ramboll recommends the focus of odour management remains on the proposed management measures, in conjunction with Visy's complaints receival and investigation procedures and that additional monitoring requirements are not necessary.

Yours sincerely,

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