

KLF Holdings Pty Ltd Recycling Facility

Noise Compliance Report Camellia Facility - Quarter 1 2023

Prepared for KLF Holdings Pty Ltd

April 2023

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KLF Holdings Pty Ltd

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April 2023

Version	Date	Prepared by	Reviewed by	Comments
1	18/4/23	Jared Blackburn	Carl Fokkema	Final

Approved by



Name

Associate - Acoustics

18 April 2023

Ground floor 20 Chandos Street

St Leonards NSW 2065

PO Box 21

St Leonards NSW 1590

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1 Introduction

1.1 Background

EMM Consulting Pty Limited (EMM) has been engaged to complete quarterly attended compliance noise monitoring for the Camellia Waste Recycling Facility (the site) on behalf of KLF Holdings Pty Limited (KLF). This quarterly monitoring is a requirement as detailed in the site's Environment Protection Licence (12700) dated 20 July 2021.

This report presents the results and findings of Quarter 1 2023 attended noise monitoring conducted during the day, evening and night periods of 15 and 16 March 2023.

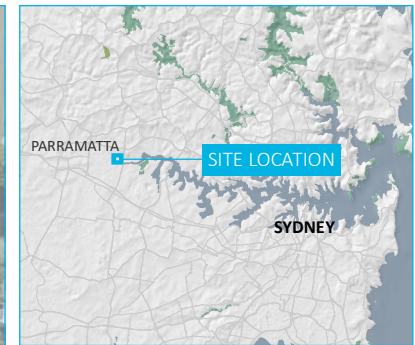
1.2 Attended monitoring locations

Site monitoring locations are detailed in Table 1.1 and shown on Figure 1.1. It should be noted that Figure 1.1 shows actual monitoring positions, not necessarily the location of residences.

Table 1.1 Attended noise monitoring locations

ID	Location	Coordinates (MGA56)	
		Easting	Northing
A1	530 John Street, Rydalmere	319369	6255948
A2	45 John Street, Rydalmere	319319	6256051
A3	24 Milton Street, Rydalmere	319230	6256149
A4	28 Sylvia Street, Rydalmere	319410	6256043

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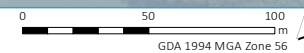


- KEY**
- Noise measurement location - attended
 - Site boundary
 - Named waterbody
- INSET KEY**
- Major road
 - NPWS reserve
 - State forest

Site locality and attended noise monitoring locations

KLF Holdings Camelia
Quarterly noise compliance
Figure 1.1

Source: EMM (2021); MetroMap (2021); DFSI (2017); GA (2011); ASGC (2006)



1.3 Terminology and abbreviations

Some definitions of terms and abbreviations which may be used in this report are provided in Table 1.2.

Table 1.2 Terminology and abbreviations

Term/descriptor	Definition
dB(A)	Noise level measurement units are decibels (dB). The “A” weighting scale is used to approximate how humans hear noise.
L_{Amax}	The maximum root mean squared A-weighted noise level over a time period.
L_{A1}	The A-weighted noise level which is exceeded for 1 per cent of the time.
$LA_{1,1minute}$	The A-weighted noise level which is exceeded for 1 per cent of the specified time period of 1 minute.
LA_{10}	The A-weighted noise level which is exceeded for 10 percent of the time.
LA_{eq}	The energy average A-weighted noise level.
LA_{50}	The A-weighted noise level which is exceeded for 50 per cent of the time, also the median noise level during a measurement period.
LA_{90}	The A-weighted noise level exceeded for 90 percent of the time, also referred to as the “background” noise level and commonly used to derive noise limits.
L_{Amin}	The minimum A-weighted noise level over a time period.
LC_{eq}	The energy average C-weighted noise energy during a measurement period. The “C” weighting scale is used to take into account low-frequency components of noise within the audibility range of humans.
SPL	Sound pressure level. Fluctuations in pressure measured as 10 times a logarithmic scale, with the reference pressure being 20 micropascals.
Hertz (Hz)	The frequency of fluctuations in pressure, measured in cycles per second. Most sounds are a combination of many frequencies together.
AWS	Automatic weather station used to collect meteorological data, typically at an altitude of 10 metres.
VTG	Vertical temperature gradient in degrees Celsius per 100 metres altitude.
Sigma-theta	The standard deviation of the horizontal wind direction over a period of time.
IA	Inaudible. When site noise is noted as IA then there was no site noise at the monitoring location.
NM	Not Measurable. If site noise is noted as NM, this means some noise was audible but could not be quantified.
Day	Monday – Saturday: 7 am to 6 pm, on Sundays and Public Holidays: 8 am to 6 pm.
Evening	Monday – Saturday: 6 pm to 10 pm, on Sundays and Public Holidays: 6 pm to 10 pm.
Night	Monday – Saturday: 10 pm to 7 am, on Sundays and Public Holidays: 10 pm to 8 am.

Appendix A provides further information that gives an indication as to how an average person perceives changes in noise level, and examples of common noise levels.

2 Noise limits

2.1 Environment protection licence

Noise assessment criteria for the site are provided in the site's EPL. These are specified for day, evening and night periods at locations which are representative of residences potentially most impacted by site noise. Relevant sections of the EPL are reproduced in Appendix B.2.

2.2 Noise limits

Noise impact limits based on the site's EPL L3.1 are provided in Table 2.1.

Table 2.1 Noise impact limits, dB

Location	Day $L_{Aeq,15minute}$	Evening $L_{Aeq,15minute}$	Night $L_{Aeq,15minute}$	Night L_{AFmax}
523-530 John Street Rydalmere	50	48	43	59
28 & 30 Sylvia Street Rydalmere, 33 Nowill Street Rydalmere	50	48	43	59
37-45 John Street Rydalmere	50	48	43	59
22 & 24 Milton Street Rydalmere, 33 & 35 John Street Rydalmere	50	48	43	59

2.3 Meteorological conditions

Condition L3.2 of the EPL states the meteorological conditions which the noise limits apply under:

- L3.2 Noise-enhancing meteorological conditions:
- The noise limits set out in condition L3.1 apply under the meteorological conditions listed in the table below.
 - For those meteorological conditions not referred to in condition L3.2(a) table, the noise limits that apply are the noise limits in conditions L3.1 table plus 5 dB.

The table from Condition L3.2 is reproduced in Table 2.2 below.

Table 2.2 Applicable meteorological conditions

Assessment period	Meteorological conditions
Day	Stability Categories A, B, C and D with wind speeds up to and including 3 m/s at 10 m above ground level.
Evening	Stability Categories A, B, C and D with wind speeds up to and including 3 m/s at 10 m above ground level.

Table 2.2 **Applicable meteorological conditions**

Assessment period	Meteorological conditions
Night	Stability Categories A, B, C and D with wind speeds up to and including 3 m/s at 10 m above ground level; or Stability category E and F with wind speeds up to and including 2 m/s at 10 m above ground level.

L3.3 For the purpose of condition L3.1;

- a) Day means the period from 7am to 6pm Monday to Saturday and the period from 8am to 6pm Sunday and public holidays.
- b) Evening means the period from 6pm to 10pm.
- c) Night means the period from 10pm to 7am Monday to Saturday and the period from 10pm to 8am Sunday and public holidays

Condition L3.4 specifies the source of meteorological data to be used and method for determining stability categories:

L3.4 For the purpose of condition L3.2:

- a) The meteorological conditions are to be determined from meteorological data obtained from the meteorological weather station identified as Bureau of Meteorology AWS at Sydney Olympic Park, NSW (Station no 066212).
- b) Stability category shall be determined using the following method from Fact Sheet D of the Noise Policy for Industry (NSW EPA, 2017):
 - i. Use of sigma-theta data (section D1.4).

2.4 Additional requirements

Monitoring and reporting have been done in accordance with the NSW EPA 'Noise Policy for Industry' (NPfI) issued in October 2017 and the 'Approved methods for the measurement and analysis of environmental noise in NSW' (Approved Methods) issued in January 2022.

3 Methodology

3.1 Overview

Attended environmental noise monitoring was done in general accordance with Australian Standard AS1055 'Acoustics, Description and Measurement of Environmental Noise' and relevant NSW requirements. Meteorological data was obtained from the Sydney Olympic Park automatic weather station (AWS) (station ID 066212) which allowed correlation of atmospheric parameters with measured site noise levels.

3.2 Attended noise monitoring

During this survey, attended noise monitoring was conducted during the day/evening/night period at each location. The duration of each measurement was 15 minutes. Atmospheric conditions were measured at each monitoring location.

Measured sound levels from various sources were noted during each measurement, and particular attention was paid to the extent of site's contribution (if any) to measured levels. At each monitoring location, the site-only $L_{Aeq,15minute}$ and L_{Amax} were measured directly or determined by other methods detailed in Section 7.1 of the NPfI.

If the exact noise levels from site could not be established due to masking by other noise sources in a similar frequency range, but site noise was determined to be at least 5 dB lower than relevant limits, then a maximum estimate of site noise may be provided. This is expressed as a 'less than' quantity, such as <20 dB or <30 dB.

The terms 'Inaudible' (IA) or 'Not Measurable' (NM) may be used in this report. When site noise is noted as IA, no site noise was audible at the monitoring location. When site noise is noted as NM, this means site noise was audible but could not be quantified. All results noted as NM in this report were due to one or more of the following:

- Site noise levels were extremely low and unlikely, in many cases, to be noticed.
- Site noise levels were masked by other more dominant noise sources that are characteristic of the environment, such as breeze in foliage or continuous road traffic noise, that cannot be eliminated by monitoring at an alternate or intermediate location.
- It was not feasible or reasonable to employ methods such as to move closer and back calculate. Cases may include rough terrain preventing closer measurement, addition/removal of significant source to receiver shielding caused by moving closer, and meteorological conditions where back calculation may not be accurate.

3.3 Modifying factors

All measurements were evaluated for potential modifying factors in accordance with the NPfI. Assessment of modifying factors is undertaken at the time of measurement if the site was audible and directly quantifiable. If applicable, modifying factor penalties have been reported and added to measured site-only L_{Aeq} noise levels.

Low-frequency modifying factor penalties have only been applied to site-only L_{Aeq} levels if the site was the only contributing low-frequency noise source. Specific methodology for assessment of each modifying factor is outlined in Fact Sheet C of the NPfI.

3.4 Instrumentation

Equipment used to measure environmental noise levels is detailed in Table 3.1. Calibration certificates are provided in Appendix C.

Table 3.1 **Attended noise monitoring equipment**

Item	Serial number	Calibration due date	Relevant standard
Brüel & Kjær Type 2250 sound level meter	3008201	26 July 2023	IEC 61672-1:2002
Svantek SV36 calibrator	86311	17 March 2023	IEC 60942:2003

4 Results

4.1 Total measured noise levels and atmospheric conditions

Overall noise levels measured at each location during attended measurements are provided in Table 4.1.

Table 4.1 Total measured noise levels – March 2023 ¹

Location	Start date and time	L _{Amax} dB	L _{A1} dB	L _{A10} dB	L _{Aeq} dB	L _{A50} dB	L _{A90} dB	L _{Amin} dB
A1	15/03/2023 5:36 am	65	65	51	50	49	48	46
A1	15/03/2023 5:52 am	74	74	54	52	51	49	47
A2	15/03/2023 6:10 am	68	68	56	54	51	49	47
A3	15/03/2023 6:28 am	71	71	55	54	53	51	49
A1	15/03/2023 7:01 am	73	73	58	56	54	52	50
A1	15/03/2023 7:16 am	68	68	55	53	52	51	49
A2	15/03/2023 7:33 am	67	67	54	52	51	49	47
A2	15/03/2023 7:49 am	75	75	56	54	53	50	48
A3	15/03/2023 8:07 am	69	69	56	54	53	49	47
A3	15/03/2023 8:23 am	65	65	54	51	50	48	45
A1	15/03/2023 6:29 pm	81	81	53	58	47	46	43
A2	15/03/2023 6:47 pm	72	72	53	52	48	46	43
A1	16/03/2023 5:41 am	64	64	52	51	51	50	48
A1	16/03/2023 5:57 am	67	67	52	51	51	50	48
A2	16/03/2023 6:14 am	66	66	54	53	53	52	49
A3	16/03/2023 6:40 am	68	68	57	55	55	53	50
A1	16/03/2023 7:00 am	76	76	58	56	54	52	50
A1	16/03/2023 7:16 am	66	66	57	55	55	53	50
A2	16/03/2023 7:35 am	74	74	56	56	51	49	48
A2	16/03/2023 7:50 am	72	72	53	53	50	49	46
A3	16/03/2023 8:08 am	70	70	57	54	51	49	47
A3	16/03/2023 8:24 am	70	70	57	55	53	52	48
A1	16/03/2023 6:31 pm	65	65	57	52	48	45	42
A2	16/03/2023 6:47 pm	77	77	55	52	49	45	43

Notes: 1. Levels in this table are not necessarily the result of activity at site.

Atmospheric condition data measured by the operator during each measurement using a hand-held weather meter is shown in Table 4.2. The wind speed, direction and temperature were measured at approximately 1.5

metres above ground. Attended noise monitoring is not done during rain, hail, or wind speeds above 5 m/s at microphone height.

Table 4.2 Measured atmospheric conditions – March 2023

Location	Start date and time	Temperature °C	Wind speed m/s	Wind direction ° Magnetic north ¹	Cloud cover 1/8s
A1	15/03/2023 5:36 am	18	-	-	2
A1	15/03/2023 5:52 am	18	-	-	2
A2	15/03/2023 6:10 am	18	-	-	2
A3	15/03/2023 6:28 am	18	-	-	2
A1	15/03/2023 7:01 am	18	-	-	2
A1	15/03/2023 7:16 am	19	-	-	2
A2	15/03/2023 7:33 am	19	-	-	2
A2	15/03/2023 7:49 am	19	-	-	2
A3	15/03/2023 8:07 am	19	-	-	2
A3	15/03/2023 8:23 am	20	0.7	WNW	2
A1	15/03/2023 6:29 pm	25	3.6	E	1
A2	15/03/2023 6:47 pm	25	2.9	E	1
A1	16/03/2023 5:41 am	18	-	-	2
A1	16/03/2023 5:57 am	18	-	-	2
A2	16/03/2023 6:14 am	18	-	-	2
A3	16/03/2023 6:40 am	18	0.5	NW	2
A1	16/03/2023 7:00 am	18	-	-	2
A1	16/03/2023 7:16 am	18	-	-	2
A2	16/03/2023 7:35 am	19	-	-	2
A2	16/03/2023 7:50 am	19	-	-	2
A3	16/03/2023 8:08 am	20	-	-	2
A3	16/03/2023 8:24 am	20	1.5	NW	2
A1	16/03/2023 6:31 pm	34	3.6	WNW	1
A2	16/03/2023 6:47 pm	34	3.2	WNW	1

Notes: 1. “-” indicates calm conditions at monitoring location.

4.2 Site only noise levels

4.2.1 Modifying factors

There were no modifying factors, as defined in the NPfI, applicable during the survey.

4.2.2 Monitoring results

Table 4.3 provides site noise levels in the absence of other sources, where possible, and includes weather data from the Sydney Olympic ParkAWS. Limits are applicable if weather conditions were within specified parameters during each measurement.

Table 4.3 Site noise levels and limits – March 2023

Location	Start Date and Time	Wind		Stability Class	Limits apply? ¹	Limits, dB		Site levels, dB		Exceedances, dB ¹	
		Speed m/s	Direction ³			L _{Aeq,15minute}	L _{Amax}	L _{Aeq,15minute} ²	L _{Amax}	L _{Aeq,15minute}	L _{Amax}
A1	15/03/2023 5:36 am	-	-	G	N	48 ⁵	64 ⁵	45	61	Nil	Nil
A1	15/03/2023 5:52 am	-	-	G	N	48 ⁵	64 ⁵	45	60	Nil	Nil
A2	15/03/2023 6:10 am	-	-	G	N	48 ⁵	64 ⁵	43	59	Nil	Nil
A3	15/03/2023 6:28 am	-	-	G	N	48 ⁵	64 ⁵	40	58	Nil	Nil
A1	15/03/2023 7:01 am	-	-	D	Y	50	N/A	50	59	Nil	N/A
A1	15/03/2023 7:16 am	-	-	D	Y	50	N/A	50	63	Nil	N/A
A2	15/03/2023 7:33 am	-	-	D	Y	50	N/A	50	63	Nil	N/A
A2	15/03/2023 7:49 am	-	-	D	Y	50	N/A	48	59	Nil	N/A
A3	15/03/2023 8:07 am	-	-	D	Y	50	N/A	<40	52	Nil	N/A
A3	15/03/2023 8:23 am	0.7	WNW	E	N	55 ⁵	N/A	<40	45	Nil	N/A
A1 ⁴	15/03/2023 6:29 pm	3.6	E	D	N	53 ⁵	N/A	N/A	N/A	N/A	N/A
A2 ⁴	15/03/2023 6:47 pm	2.9	E	E	N	53 ⁵	N/A	N/A	N/A	N/A	N/A
A1	16/03/2023 5:41 am	-	-	G	N	48 ⁵	64 ⁵	43	56	Nil	Nil
A1	16/03/2023 5:57 am	-	-	G	N	48 ⁵	64 ⁵	43	57	Nil	Nil
A2	16/03/2023 6:14 am	-	-	G	N	48 ⁵	64 ⁵	43	59	Nil	Nil

Table 4.3 Site noise levels and limits – March 2023

Location	Start Date and Time	Wind		Stability Class	Limits apply? ¹	Limits, dB		Site levels, dB		Exceedances, dB ¹	
		Speed m/s	Direction ³			L _{Aeq,15minute}	L _{Amax}	L _{Aeq,15minute} ²	L _{Amax}	L _{Aeq,15minute}	L _{Amax}
A3	16/03/2023 6:40 am	0.5	NW	E	Y	43	59	43	53	Nil	Nil
A1	16/03/2023 7:00 am	-	-	D	Y	50	N/A	50	65	Nil	N/A
A1	16/03/2023 7:16 am	-	-	D	Y	50	N/A	49	65	Nil	N/A
A2	16/03/2023 7:35 am	-	-	D	Y	50	N/A	48	60	Nil	N/A
A2	16/03/2023 7:50 am	-	-	D	Y	50	N/A	48	59	Nil	N/A
A3	16/03/2023 8:08 am	-	-	D	Y	50	N/A	<40	43	Nil	N/A
A3	16/03/2023 8:24 am	1.5	NW	C	Y	50	N/A	<43	44	Nil	N/A
A1 ⁴	16/03/2023 6:31 pm	3.6	WNW	D	N	53 ⁵	N/A	N/A	N/A	N/A	N/A
A2 ⁴	16/03/2023 6:47 pm	3.2	WNW	E	N	53 ⁵	N/A	N/A	N/A	N/A	N/A

- Notes:
1. Noise emission limits are applicable if weather conditions were within parameters specified in Section 2.3. NA in exceedance column indicates that limits were not applicable due to weather conditions.
 2. Site-only L_{Aeq,15minute} includes modifying factor penalties if applicable.
 3. Degrees magnetic north, “-” indicates calm conditions.
 4. Site was not in operation during evening period.
 5. In accordance with Condition L3.2, where meteorological conditions exceed those specified in Condition L3.2, the EPL limits for these periods are those listed in Condition L3.1 plus 5 dB.

5 Summary

EMM was engaged by KLF Holdings Pty Ltd to conduct a quarterly noise survey of operations at the site. The survey purpose was to quantify the acoustic environment and compare site noise levels against specified EPL limits.

Attended environmental noise monitoring described in this report was done during the day/evening/night period(s) of 15 and 16 March 2023 at 4 monitoring locations.

Attended noise monitoring observations and results demonstrate that operational noise from the site was audible during all attended measurements. Site contributions were demonstrated to be compliant during 22 of the 24 samples captured at residences. A 2 dB exceedance of an EPL L_{Aeq} criterion was measured during two measurements. A 1 to 2 dB exceedance is considered by the EPA as negligible in accordance with Section 4.2 of the NPfl (EPA 2017).

Maximum L_{Amax} noise events measured from the site were compliant with the EPL L_{Amax} noise limits.

Appendix A

Noise perception and examples

A.1 Noise levels

Table A.1 gives an indication as to how an average person perceives changes in noise level. Examples of common noise levels are provided in Figure A.1.

Table A.1 Perceived change in noise

Change in sound pressure level (dB)	Perceived change in noise
up to 2	Not perceptible
3	Just perceptible
5	Noticeable difference
10	Twice (or half) as loud
15	Large change
20	Four times (or quarter) as loud

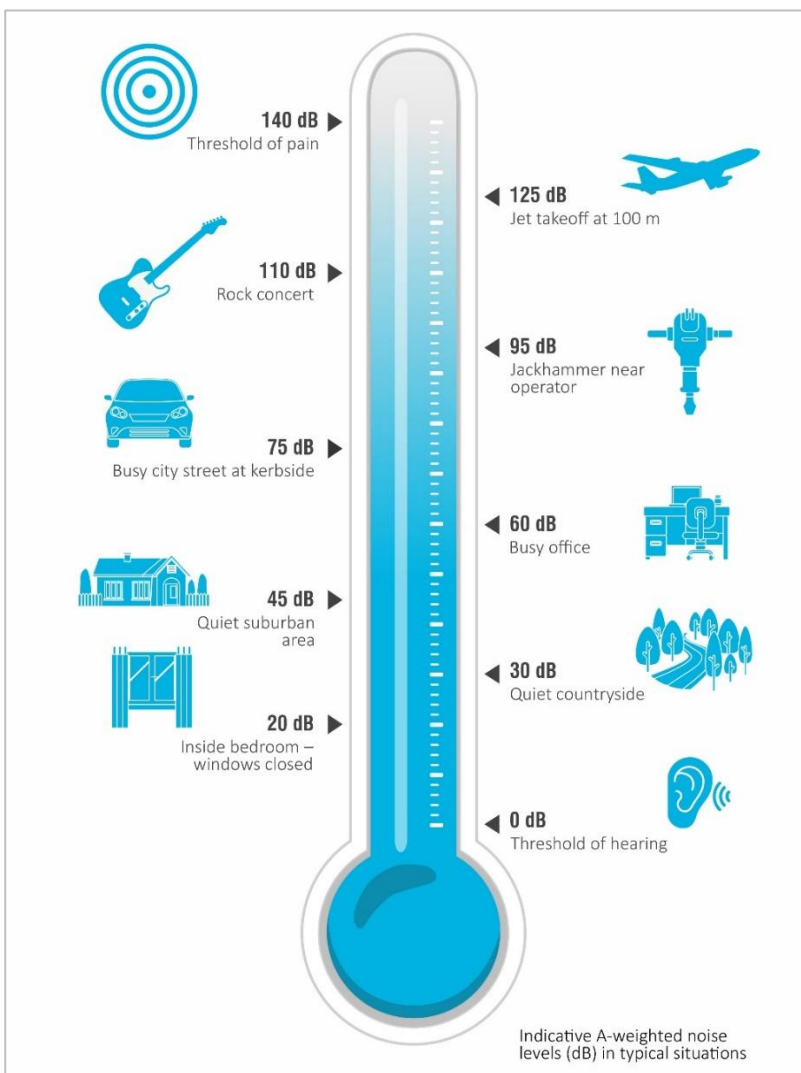


Figure A.1 Common noise levels

Appendix B

Regulator documents

Environment Protection Licence

Licence - 12700

the exception of the maximum threshold values for contaminants specified in the 'Other Limits' column

Petroleum Hydrocarbons C6-C9 150mg/kg; Petroleum Hydrocarbons C10-C36 1600mg/kg; Polycyclic aromatic hydrocarbons 80mg/kg; Polychlorinated biphenyls (individual) 1mg/kg. No Acid Sulfate Soil or Potential Acid Sulfate Soil is to be received at the Premises. Soil thresholds will be subject to review from time to time.

- L2.2 The height of any stockpile of waste or any processed substance must not exceed four (4) metres.
- L2.3 The licensee must install and maintain a visible permanent stockpile marker that shows the permitted height of stockpiles, being four metres.
- L2.4 The authorised amount of waste permitted on the premises cannot exceed 6,500 tonnes at any one time.
- L2.5 Any waste that is not listed in table L2.1, including asbestos waste, that is found after receipt at the premises must be:
- stored in an isolated and appropriately sign-posted area;
 - removed from the premises within one business day of receipt of the non-conforming waste to a place that can lawfully accept that type of waste; and
 - details (date, amount, type of waste, disposal location, disposal dated) must be logged in a register that is kept at the premises.

L3 Noise limits

- L3.1 Noise generated at the premises must not exceed the noise limits (in dB(A)) at the times and locations in table below.

Location	Day	Evening	Night	Night
-	LAeq(15 minute)	LAeq(15 minute)	LAeq(15 minute)	LAFmax
523-530 John Street Rydalmere	50	48	43	59

Environment Protection Licence

Licence - 12700

28 & 30 Sylvia Street Rydalmere, 33 Nowill Street Rydalmere	50	48	43	59
37-45 John Street Rydalmere	50	48	43	59
22 & 24 Milton Street Rydalmere, 33 & 35 John Street Rydalmere	50	48	43	59

L3.2 Noise-enhancing meteorological conditions

- a) The noise limits set out in condition L3.1 apply under the meteorological conditions listed in table below.
- b) For those meteorological conditions not referred to in condition L3.2(a) table, the noise limits that apply are the noise limits in condition L3.1 table plus 5dB.

Assessment Period	Meteorological Conditions
Day	Stability Categories A, B, C and D with wind speeds up to and including 3m/s at 10m above ground level
Evening	Stability Categories A, B, C and D with wind speeds up to and including 3m/s at 10m above ground level
Night	Stability Categories A, B, C and D with wind speeds up to and including 3m/s at 10m above ground level; or Stability category E and F with wind speeds up to and including 2m/s at 10m above ground level.

L3.3 For the purpose of condition L3.1;

- a) Day means the period from 7am to 6pm Monday to Saturday and the period from 8am to 6pm Sunday and public holidays.
- b) Evening means the period from 6pm to 10pm.
- c) Night means the period from 10pm to 7am Monday to Saturday and the period from 10pm to 8am Sunday and public holidays.

L3.4 For the purposes of condition L3.2:

- a) The meteorological conditions are to be determined from meteorological data obtained from the meteorological weather station identified as Bureau of Meteorology AWS at Sydney Olympic Park, NSW (Station no 066212).
- b) Stability category shall be determined using the following method from Fact Sheet D of the *Noise Policy for Industry* (NSW EPA, 2017):
 - i. Use of sigma-theta data (section D1.4).

L3.5 Noise measurements must not be undertaken where rain or wind speed at microphone level will affect the acquisition of valid measurements.

L3.6 To assess compliance:

Environment Protection Licence

Licence - 12700

a) with the LAeq(15mins) and LAm_{ax} noise limits in condition L3.1 and L3.2, the noise measurement equipment must be located:

(i) approximately on the property boundary, where any residence is situated 30 metres or less from the property boundary closest to the premises; or where applicable,

(ii) in an area within 30 metres of a residence façade, but not closer than 3 metres where any residence on the property is situated more than 30 meters from the property boundary closest to the premises; or, where applicable,

(iii) in an area within 50 metres of the boundary of a National park or a Nature Reserve,

(iv) at any other location identified in condition L3.1.

b) with the LAeq(15 minutes) or the LAm_{ax} noise limits in condition L3.1 and L3.3, the noise measurement equipment must be located:

(i) at the reasonably most affected point at a location where there is no residence at the location; or,

(ii) at the reasonably most affected point within an area at a location prescribed by condition L3.5(a).

L3.7 A non-compliance of conditions L3.1 and L3.2 will still occur where noise generated from the premises is measured in excess of the noise limit at a point other than the reasonably most affected point at the receiver locations referred to in conditions L3.6(a) or L3.6(b).

NOTE to Conditions L3.6 and L3.7. The reasonably most affected point is a point at a receiver location or within an area at a receiver location experiencing or expected to experience the highest sound pressure level from the premises.

L3.8 For the purposes of determining the noise generated from the premises, the modifying factor corrections in Table C1 in Fact Sheet C of the *Noise Policy for Industry* (NSW EPA, 2017) may be applied, if appropriate, to the noise measurements by the noise monitoring equipment.

Note: **Definition of Terms for noise limits**

- Noise Policy for Industry - the document entitled "*Noise Policy for Industry*" published by the NSW Environment Protection Authority in October 2017.

- Noise – 'sound pressure levels' for the purposes of conditions L3.1 to L3.8.

- LAeq (15 minute) - the value of the A-weighted sound pressure level of a continuous steady sound that, over a 15 minute time interval, has the same mean square sound pressure level as a sound under consideration with a level that varies with time (Australian Standard AS 1055:2018 *Acoustics: description and measurement of environmental noise*).

- LAF_{max} – the maximum sound pressure level of an event measured with a sound level meter satisfying Australian Standard AS IEC 61672.1-2013 *Electroacoustics - Sound level meters - Part 1: Specifications* set to 'A' frequency weighting and fast time weighting.

L4 Hours of operation

L4.1 The hours of operation of the use of the premises is permitted 24 hours per day, Monday to Sunday, except those activities restricted by conditions L4.2 to L4.8.

L4.2 **Truck Movement**

Between 10pm to 7am: A maximum of 8 truck movements per hour are permitted to deposit waste material on the premises.

Appendix C

Calibration certificates

CERTIFICATE OF CALIBRATION

CERTIFICATE No: **SLM 30138**

EQUIPMENT TESTED: Sound Level Meter

Manufacturer: B & K

Type No: 2250

Mic. Type: B&K 4189

Pre-Amp. Type: ZC0032

Serial No: 3008201

Serial No: 2888134

Serial No: 16037

Filter Type: 1/3 Octave

Test No: FILT 6597

Owner: EMM Consulting

Ground Floor, Suite 01, 20 Chandos St
St Leonards NSW 2065

Tests IEC 61672-3:2013,

Performed: IEC 1260:1995, & AS/NZS 4476:1997

Comments: All Test passed for Class 1. (See overleaf for details)

CONDITIONS OF TEST:

Ambient Pressure 1001 hPa ± 1 hPa

Temperature 22 $^{\circ}\text{C} \pm 1^{\circ}\text{C}$



Relative Humidity 36 % $\pm 5\%$

Date of Receipt : 23/07/2021

Date of Calibration : 26/07/2021

Date of Issue : 26/07/2021

Acu-Vib Test Procedure: AVP10 (SLM) & AVP06 (Filters)

CHECKED BY:  **AUTHORISED SIGNATURE:** 

Hein Soe

Accredited for compliance with ISO/IEC 17025 - Calibration
Results of the tests, calibration and/or measurements included in this document are traceable to SI units through reference equipment that has been calibrated by the Australian National Measurement Institute or other NATA accredited laboratories demonstrating traceability.

This report applies only to the item identified in the report and may not be reproduced in part.

The uncertainties quoted are calculated in accordance with the methods of the ISO Guide to the Uncertainty of Measurement and quoted at a coverage factor of 2 with a confidence interval of approximately 95%.



WORLD RECOGNISED
ACCREDITATION

Accredited Lab No. 9262
Acoustic and Vibration
Measurements


Acu-Vib Electronics
CALIBRATIONS SALES RENTALS REPAIRS

Head Office & Calibration Laboratory
Unit 14, 22 Hudson Ave. Castle Hill NSW 2154
(02) 9680 8133
www.acu-vib.com.au

CERTIFICATE OF CALIBRATION

CERTIFICATE NO: C30881

EQUIPMENT TESTED : Sound Level Calibrator

Manufacturer: Svantek
Type No: SV-36 Serial No: 86311
Owner: EMM Consulting
Suite 01, 20 Chandos St
St Leonards NSW 2065

Tests Performed: Measured Output Pressure level, Frequency & Distortion
Comments: See Details overleaf. All Test Passed.



Parameter	Pre-Adj	Adj Y/N	Output: (dB re 20 µPa)	Frequency (Hz)	THD&N (%)
Level1:	NA	N	94.05 dB	999.99 Hz	1.00 %
Level2:	NA	N	114.05 dB	999.99 Hz	1.00 %
Uncertainty			±0.11 dB	±0.05%	±0.20 %

Uncertainty (at 95% c.l.) k=2

CONDITION OF TEST:

Ambient Pressure 1002 hPa ±1 hPa Date of Receipt : 20/10/2021
Temperature 23 °C ±1° C Date of Calibration : 20/10/2021
Relative Humidity 41 % ±5% Date of Issue : 20/10/2021

Acu-Vib Test AVP02 (Calibrators)
Procedure: Test Method: AS IEC 60942 - 2017

CHECKED BY:  AUTHORISED SIGNATURE: 
Jack Kiehl

Accredited for compliance with ISO/IEC 17025 - Calibration
Results of the tests, calibration and/or measurements included in this document are traceable to SI units through reference equipment that has been calibrated by the Australian National Measurement Institute or other NATA accredited laboratories demonstrating traceability.

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Head Office & Calibration Laboratory
Unit 14, 22 Hudson Ave. Castle Hill NSW 2154
(02) 9680 8133
www.acu-vib.com.au

Australia

SYDNEY

Ground floor 20 Chandos Street
St Leonards NSW 2065
T 02 9493 9500

NEWCASTLE

Level 3 175 Scott Street
Newcastle NSW 2300
T 02 4907 4800

BRISBANE

Level 1 87 Wickham Terrace
Spring Hill QLD 4000
T 07 3648 1200

CANBERRA

Suite 2.04 Level 2
15 London Circuit
Canberra City ACT 2601

ADELAIDE

Level 4 74 Pirie Street
Adelaide SA 5000
T 08 8232 2253

MELBOURNE

Suite 8.03 Level 8
454 Collins Street
Melbourne VIC 3000
T 03 9993 1900

PERTH

Suite 9.02 Level 9
109 St Georges Terrace
Perth WA 6000
T 08 6430 4800

Canada

TORONTO

2345 Yonge Street Suite 300
Toronto ON M4P 2E5
T 647 467 1605

VANCOUVER

60 W 6th Ave
Vancouver BC V5Y 1K1
T 604 999 8297



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