

# KLF Holdings Pty Ltd Recycling Facility

Noise compliance report - Quarter 3 2021

Prepared for KLF Holdings Pty Ltd  
November 2021

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# KLF Holdings Pty Ltd Recycling Facility

Noise compliance report - Quarter 3 2021

## Report Number

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E210583 RP2021Q3

## Client

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KLF Holdings Pty Ltd

## Date

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9 November 2021

## Version

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v1 Final

## Prepared by

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### Rick Scully

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9 November 2021

## Approved by

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### Najah Ishac

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9 November 2021

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# 1 Introduction

EMM Consulting Pty Limited (EMM) has been engaged to complete quarterly attended compliance noise monitoring for the Camelia 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 3 2021 attended noise monitoring conducted during the day, evening and night periods of 26 and 27 October 2021.

EMM notes that this compliance monitoring falls outside of the third quarter of the calendar year. Numerous delays were experienced due to the COVID-19 pandemic and associated lockdowns within greater Sydney. Once our field technicians were permitted to travel and conduct the monitoring, further delays were as a result of extended periods of adverse weather. The Environment Protection Licence (EPL) monitoring requirement of two consecutive days of no rain and moderate wind speeds has affected the ability to schedule this monitoring. The noise compliance monitoring was completed at the earliest possible time.

The following documents were referenced as part of this assessment:

- KLF Holdings Pty Ltd Environment Protection Licence (EPL) 12700 (20 July 2021);
- AS 1055.2018 Acoustics - Description and measurement of environmental noise; and
- Environment Protection Authority (EPA), Noise Policy for Industry (NPf), (2017).

Several technical terms are discussed in this report. These are explained in the glossary.

## 2 Noise limits and monitoring requirements

Noise assessment criteria for the site are provided in the site’s EPL. The noise assessment criteria are specified for day, evening and night periods at locations which are representative of residences potentially most impacted by site noise. Pages from the site’s EPL pertaining to noise are shown in Appendix A.

### 2.1 Noise limits

Condition L3.1 of the site’s EPL nominates noise limits KLF Camelia, which are reproduced in Table 2.1.

**Table 2.1 Noise limits**

Location	Noise limits, dB $L_{Aeq,15min}$			Noise limits, dB $L_{AFmax}$
	Day	Evening	Night	Night
523-530 John Street Rydalmere	50	48	43	59
28 & 30 Sylvie 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

Notes: 1. Day is the period from 7 am to 6 pm Monday to Saturday and 8 am to 6 pm Sunday and public holidays. Evening is the period from 6 pm to 10 pm. Night is the period from 10 pm to 7 am Monday to Saturday and 10 pm to 8 am Sunday and public holidays.

### 2.2 Meteorological conditions

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

- L3.2 Noise-enhancing meteorological conditions:
- a) The noise limits set out in condition L3.1 apply under the meteorological conditions listed in the 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 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**

<b>Assessment period</b>	<b>Meteorological conditions</b>
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.

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).

# 3 Assessment methodology

## 3.1 Attended noise monitoring

To quantify noise emissions from the site, 15-minute attended noise surveys were completed at monitoring locations as per Condition L3.1 of the site’s EPL. Three attended noise monitoring locations were chosen to represent the most affected residences in proximity to the site, it is anticipated that any residences located further from the site would experience lesser or similar noise levels. The attended noise monitoring locations and their coordinates are listed in Table 3.1 and shown in Figure 3.1.

**Table 3.1** Attended noise monitoring locations

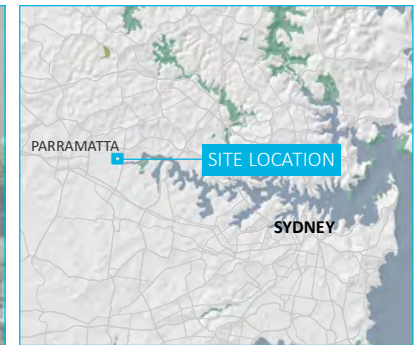
Monitoring location	Description	Location	MGA56	
			Easting (m)	Northing (m)
A1	Approximately 200 m northeast of the site	530 John Street, Rydalmere	319369	6255948
A2	Approximately 225 m northeast of the site	45 John Street, Rydalmere	319319	6256051
A3	Approximately 260 m northeast of the site	24 Milton Street, Rydalmere	319230	6256149

## 3.2 Instrumentation

A Brüel & Kjær Type 2250 sound level meter (serial number 3008201) was used to conduct 15-minute attended measurements and record 1/3 octave band centre frequency and statistical noise indices. The sound analyser was calibrated before and on completion of the survey using a Svantek SV36 calibrator (s/n 106879). The instruments were within their NATA laboratory calibration period during the time of these readings. Refer to Appendix B for calibration certificates.



\\lemmsvr1\emms3\2021\E210583 - KLF Noise Monitoring\8 GIS\02 Maps\A001 - AttendedNoiseMonitoring\_202111029\_01.mxd 1/11/2021

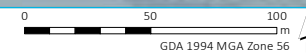


- KEY**
- Noise measurement location - attended
  - Site boundary
  - Named waterbody
- INSET KEY**
- Major road
  - NPWS reserve
  - State forest

Site locality and attended noise monitoring locations

KLF Holdings Camelia  
Quarterly noise compliance  
Figure 3.1

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





### 3.3 Weather conditions

Weather data for the monitoring period was sourced from the Bureau of Meteorology (BoM) Automated Weather Station (AWS) located at Sydney Olympic Park (Station ID 066212). Wind speeds are stated with reference to a height of 10 m above ground level (AGL).

The presence of temperature inversion conditions was determined for the monitoring period in accordance with the Sigma Theta method specified in Fact Sheet D of the NPfl (EPA 2017). Table 3.2 is an excerpt from Fact Sheet D of the NPfl (EPA 2017) showing the range of vertical temperature gradients for each Pasquill-Guilford stability category.

**Table 3.2 Stability categories and vertical temperature gradients**

Stability category	Range of vertical temperature gradient, DT/DZ (°C/100 m)
A	$DT/DZ < -1.9$
B	$-1.9 \leq DT/DZ < -1.7$
C	$-1.7 \leq DT/DZ < -1.5$
D	$-1.5 \leq DT/DZ < -0.5$
E	$-0.5 \leq DT/DZ < 1.5$
F	$1.5 \leq DT/DZ < 4.0$
G	$DT/DZ \geq 4.0$

Source: NPfl (EPA 2017).

### 3.4 Site operating hours

The site typically operates from 4:30 am to 4:30 pm on Monday to Friday and from 5:00 am to 1:00 pm on Saturdays (closed Sundays), with hours extended when demand and processing is required.

## 4 Monitoring data and discussion

The results of the attended noise monitoring are summarised in Table 4.1.

A review of the weather data confirmed that the EPL meteorological criteria (Condition L3.2) was exceeded during 11 of the 24 attended measurements. In accordance with the EPL, the noise limits for those periods were those listed in Condition L.1 plus 5 dB. Details of the average wind speed, wind direction, cloud cover and stability category present during each 15-minute attended measurement are shown in Table 4.1.

The site was operational during all monitoring periods, typical activities included:

- Night (10:00 pm to 7:00 am):
  - front end loader;
  - two excavators; and
  - trucks tipping/being loaded out.
- Day (7:00 am to 6:00 pm):
  - front end loader;
  - two excavators;
  - processing plant;
  - one excavator loading processing plant;
  - one excavator loading residual material out; and
  - trucks tipping/being loaded out.
- Evening (6:00 pm to 10:00 pm):
  - front end loader;
  - one excavators;
  - processing plant;
  - one excavator feeding processing plant; and
  - trucks tipping.

Site operations were audible during all attended measurements including the constant hum of processing plant and “bangs” and “clangs” of material handling. Site contributions were estimated using a combination of operator observations at the time of measurement, filtering of extraneous noise and the application of a low pass filter in order to filter out extraneous noise such as birdsong and insects. Site contributions were compliant (below) EPL  $L_{Aeq,15min}$  noise limits during all attended measurements.

Typical  $L_{Amax}$  noise levels from the site were caused by “bangs” from the excavator handling material. Site  $L_{Amax}$  contributions were compliant (below) EPL  $L_{Amax}$  noise limits during all the attended measurements for the night period.

Based on a detailed review and analysis of noise measurement data, there was no evidence of low frequency noise, tonality or any other modifying factors as defined in the NPfl (EPA 2017) at any monitoring location; therefore, modifying factors were not applicable.

**Table 4.1 Attended noise monitoring results – Q3 2021, 26-27 October**

Location	Start time (period) <sup>1</sup>	Total noise levels, dB				Estimated site contribution, dB		EPL limits, dB		Meteorological conditions EPL limits apply (Y/N) <sup>2</sup>	Exceedance, dB		Notes
		L <sub>Amin</sub>	L <sub>A90</sub>	L <sub>Aeq</sub>	L <sub>Amax</sub>	L <sub>Aeq</sub> , 15min	L <sub>Amax</sub>	L <sub>Aeq</sub> , 15min	L <sub>Amax</sub> <sup>2</sup>		L <sub>Aeq</sub> , 15min	L <sub>Amax</sub>	
A1	5:30 am (Night)	46	48	56	85	<40	59	48 <sup>3</sup> (43+5)	64 <sup>3</sup> (59+5)	Calm, Stability Category G, <b>N</b>	Nil	Nil	<b>Site audible at times including infrequent bangs/clangs of equipment handling material.</b> Other noise included persistent birdsong, hum of other industry and distant traffic.
A1	5:47 am (Night)	47	48	56	84	<40	63	48 <sup>3</sup> (43+5)	64 <sup>3</sup> (59+5)	Calm, Stability Category G, <b>N</b>	Nil	Nil	<b>Site audible at times including infrequent bangs/clangs of equipment handling material.</b> Other noise included persistent birdsong, hum of other industry and distant traffic.
A2	6:05 am (Night)	48	51	54	84	<40	58	48 <sup>3</sup> (43+5)	64 <sup>3</sup> (59+5)	Calm, Stability Category G, <b>N</b>	Nil	Nil	<b>Site audible at times including infrequent bangs/clangs of equipment handling material.</b> Other noise included persistent birdsong, hum of other industry, distant traffic and one rivercat pass-by.
A3	6:24 am (Night)	47	49	52	69	<40	54	48 <sup>3</sup> (43+5)	64 <sup>3</sup> (59+5)	Calm, Stability Category G, <b>N</b>	Nil	Nil	<b>Site audible at times including infrequent bangs/clangs of equipment handling material.</b> Other noise included persistent birdsong, hum of other industry and distant traffic.
A1	7:10 am (Day)	48	50	53	68	48	-	50	-	0.3 m/s NW, Stability Category A, <b>Y</b>	Nil	-	<b>Site audible including processing plant, bangs/clangs of material handling and trucks unloading.</b> Other noise included persistent birdsong, hum of other industry, distant traffic and one rivercat pass-by.

**Table 4.1 Attended noise monitoring results – Q3 2021, 26-27 October**

Location	Start time (period) <sup>1</sup>	Total noise levels, dB				Estimated site contribution, dB		EPL limits, dB		Meteorological conditions EPL limits apply (Y/N) <sup>2</sup>	Exceedance, dB		Notes
		L <sub>Amin</sub>	L <sub>A90</sub>	L <sub>Aeq</sub>	L <sub>Amax</sub>	L <sub>Aeq, 15min</sub>	L <sub>Amax</sub>	L <sub>Aeq, 15min</sub>	L <sub>Amax</sub> <sup>2</sup>		L <sub>Aeq, 15min</sub>	L <sub>Amax</sub>	
A1	7:33 am (Day)	48	50	54	73	50	-	50	-	0.1 m/s W, Stability Category A, Y	Nil	-	<b>Site audible including processing plant and bangs/clangs of material handling.</b> Other noise included persistent birdsong, hum of other industry, distant traffic, one rivercat pass-by and one helicopter overflight.
A2	7:51 am (Day)	46	49	65	91	49	-	50	-	0.1 m/s W, Stability Category A, Y	Nil	-	<b>Site audible including processing plant and bangs/clangs of material handling.</b> Other noise included persistent birdsong, hum of other industry, distant traffic, local traffic and one helicopter overflight.
A2	8:06 am (Day)	46	48	52	74	46	-	50	-	0.3 m/s W, Stability Category A, Y	Nil	-	<b>Site audible including processing plant and bangs/clangs of material handling.</b> Other noise included persistent birdsong, hum of other industry and distant traffic.
A3	8:29 am (Day)	44	47	53	71	46	-	50	-	0.6 m/s W, Stability Category A, Y	Nil	-	<b>Site audible including processing plant and bangs/clangs of material handling.</b> Other noise included persistent birdsong, hum of other industry, distant traffic, local traffic and one bang from shipping container yard.
A3	8:44 am (Day)	46	48	52	68	45	-	50	-	0.6 m/s W, Stability Category A, Y	Nil	-	<b>Site audible including processing plant and bangs/clangs of material handling.</b> Other noise included persistent birdsong, hum of other industry and distant traffic.

**Table 4.1 Attended noise monitoring results – Q3 2021, 26-27 October**

Location	Start time (period) <sup>1</sup>	Total noise levels, dB				Estimated site contribution, dB		EPL limits, dB		Meteorological conditions EPL limits apply (Y/N) <sup>2</sup>	Exceedance, dB		Notes
		L <sub>Amin</sub>	L <sub>A90</sub>	L <sub>Aeq</sub>	L <sub>Amax</sub>	L <sub>Aeq</sub> , 15min	L <sub>Amax</sub>	L <sub>Aeq</sub> , 15min	L <sub>Amax</sub> <sup>2</sup>		L <sub>Aeq</sub> , 15min	L <sub>Amax</sub>	
A1	6:00 pm (Evening)	46	49	52	75	45	-	48 <sup>3</sup> (43+5)	-	4.9 m/s E, Stability Category D, <b>N</b>	Nil	-	<b>Site audible including processing plant and bangs/clangs of material handling.</b> Other noise included persistent birdsong, hum of other industry and distant traffic.
A2	6:17 pm (Evening)	46	48	52	70	45	-	48 <sup>3</sup> (43+5)	-	4.9 m/s E, Stability Category D, <b>N</b>	Nil	-	<b>Site faintly audible including processing plant and bangs/clangs of material handling.</b> Other noise included persistent birdsong, distant traffic and people talking/playing in park.
A1	5:37 am (Night)	43	45	52	74	<40	57	48 <sup>3</sup> (43+5)	64 <sup>3</sup> (59+5)	Calm, Stability Category G, <b>N</b>	Nil	Nil	<b>Site audible at times including infrequent bangs/clangs of equipment handling material.</b> Other noise included persistent birdsong, hum of other industry and distant traffic.
A1	5:49 am (Night)	45	46	51	73	<40	58	48 <sup>3</sup> (43+5)	64 <sup>3</sup> (59+5)	Calm, Stability Category G, <b>N</b>	Nil	Nil	<b>Site audible at times including infrequent bangs/clangs of equipment handling material.</b> Other noise included persistent birdsong, hum of other industry, distant traffic and one rivercat pass-by.
A2	6:06 am (Night)	44	47	51	70	<40	56	48 <sup>3</sup> (43+5)	64 <sup>3</sup> (59+5)	Calm, Stability Category G, <b>N</b>	Nil	Nil	<b>Site audible at times including infrequent bangs/clangs of equipment handling material.</b> Other noise included persistent birdsong, hum of other industry, reverse alarm at other industrial site and distant traffic.

**Table 4.1 Attended noise monitoring results – Q3 2021, 26-27 October**

Location	Start time (period) <sup>1</sup>	Total noise levels, dB				Estimated site contribution, dB		EPL limits, dB		Meteorological conditions EPL limits apply (Y/N) <sup>2</sup>	Exceedance, dB		Notes
		L <sub>Amin</sub>	L <sub>A90</sub>	L <sub>Aeq</sub>	L <sub>Amax</sub>	L <sub>Aeq, 15min</sub>	L <sub>Amax</sub>	L <sub>Aeq, 15min</sub>	L <sub>Amax</sub> <sup>2</sup>		L <sub>Aeq, 15min</sub>	L <sub>Amax</sub>	
A3	6:26 am (Night)	46	49	52	68	<40	57	43	59	Calm, Stability Category F, γ	Nil	Nil	<b>Site audible at times including infrequent bangs/clangs of equipment handling material.</b> Other noise included persistent birdsong, hum of other industry, distant traffic and local traffic pass-bys.
A1	7:26 am (Day)	48	50	54	69	48	-	50	-	0.5 m/s W, Stability Category A, γ	Nil	-	<b>Site audible including processing plant and bangs/clangs of material handling.</b> Other noise included persistent birdsong, hum of other industry, distant traffic, lawn mower in park and one aircraft overflight.
A1	7:42 am (Day)	48	49	52	66	48	-	50	-	0.5 m/s W, Stability Category A, γ	Nil	-	<b>Site audible including processing plant, bangs/clangs of material handling and trucks unloading.</b> Other noise included persistent birdsong, hum of other industry, distant traffic and one aircraft overflight.
A2	8:02 am (Day)	46	48	52	74	45	-	50	-	0.4 m/s SW, Stability Category A, γ	Nil	-	<b>Site audible including faint hum of processing plant and bangs/clangs of material handling.</b> Other noise included persistent birdsong, hum of other industry, distant traffic and local one car pass-by.
A2	8:18 am (Day)	46	49	59	85	45	-	50	-	0.4 m/s SW, Stability Category A, γ	Nil	-	<b>Site audible including faint hum of processing plant and bangs/clangs of material handling.</b> Other noise included persistent birdsong, hum of other industry, distant traffic and local traffic.



**Table 4.1 Attended noise monitoring results – Q3 2021, 26-27 October**

Location	Start time (period) <sup>1</sup>	Total noise levels, dB				Estimated site contribution, dB		EPL limits, dB		Meteorological conditions EPL limits apply (Y/N) <sup>2</sup>	Exceedance, dB		Notes
		L <sub>Amin</sub>	L <sub>A90</sub>	L <sub>Aeq</sub>	L <sub>Amax</sub>	L <sub>Aeq, 15min</sub>	L <sub>Amax</sub>	L <sub>Aeq, 15min</sub>	L <sub>Amax</sub> <sup>2</sup>		L <sub>Aeq, 15min</sub>	L <sub>Amax</sub>	
A3	8:44 am (Day)	44	46	50	67	45	-	50	-	0.2 m/s W, Stability Category A, Y	Nil	-	<b>Site audible including faint hum of processing plant and bangs/clangs of material handling.</b> Other noise included persistent birdsong, hum of other industry, distant traffic and local traffic.
A3	8:54 am (Day)	44	49	54	70	47	-	50	-	0.7 m/s SE, Stability Category A, Y	Nil	-	<b>Site audible including faint hum of processing plant and bangs/clangs of material handling.</b> Other noise included persistent birdsong, hum of other industry, distant traffic, local traffic and one aircraft overflight.
A1	6:00 pm (Evening)	46	47	49	68	45	-	48 <sup>3</sup> (43+5)	-	3.5 m/s E, Stability Category E, <b>N</b>	Nil	-	<b>Site audible including faint hum of processing plant and bangs/clangs of material handling.</b> Other noise included persistent birdsong, distant traffic and wind rustling foliage.
A2	6:15 pm (Evening)	46	48	53	67	<40	-	48 <sup>3</sup> (43+5)	-	3.5 m/s E, Stability Category E, <b>N</b>	Nil	-	<b>Site audible including occasional bangs/clangs of material handling.</b> Other noise included persistent birdsong, distant traffic, local traffic and people in park talking/exercising.

Notes: 1. Day is the period from 7 am to 6 pm Monday to Saturday and 8 am to 6 pm Sunday and public holidays. Evening is the period from 6 pm to 10 pm. Night is the period from 10 pm to 7 am Monday to Saturday and 10 pm to 8 am Sunday and public holidays.  
2. Weather data for the monitoring period was sourced from the Bureau of Meteorology (BoM) Automated Weather Station (AWS) located at Sydney Olympic Park (Station ID 066212). Wind speeds are stated with reference to a height of 10 m above ground level (AGL).  
3. In accordance with Condition L3.2, due to the meteorological conditions exceeding those specified in Condition L3.2, the EPL limits for these periods are those listed in Condition L3.1 plus 5 dB.

## 5 Conclusion

EMM has completed a review of operational noise from the KLF Holdings Camelia site for Quarter 3, 2021.

Attended noise monitoring was conducted during the day, evening and night periods on 26 and 27 October 2021. The applicability of noise limits was assessed with reference to weather data from the BoM's Sydney Olympic Park AWS.

The site was operational during all attended measurements.

Attended noise monitoring observations and results demonstrate that operational noise from the site was audible during all attended measurements. Noise contributions from the site were compliant with (below) relevant EPL  $L_{Aeq,15min}$  noise limits for all measurements.

Maximum  $L_{Amax}$  noise events measured from the site also satisfied the EPL  $L_{Amax}$  noise limits during attended measurements during the night period.

# Glossary

Several technical terms are discussed in this report. These are explained in Table G.1.

**Table G.1**      **Glossary of acoustic terms**

Term	Description
dB	Noise is measured in units called decibels (dB). There are several scales for describing noise, the most common being the 'A-weighted' scale. This attempts to closely approximate the frequency response of the human ear.
L <sub>A1</sub>	The 'A-weighted' noise level which is exceeded 1% of the time.
L <sub>A1,1 minute</sub>	The 'A-weighted' noise level exceeded for 1% of the specified time period of 1-minute.
L <sub>A10</sub>	The 'A-weighted' noise level which is exceeded 10% of the time. It is approximately equivalent to the average of maximum noise level.
L <sub>A90</sub>	Commonly referred to as the background noise level. The 'A-weighted' noise level exceeded 90% of the time.
L <sub>Aeq</sub>	The energy average noise from a source. This is the equivalent continuous 'A-weighted' sound pressure level over a given period. The L <sub>Aeq,15 minute</sub> descriptor refers to an L <sub>Aeq</sub> noise level measured over a 15--minute period.
L <sub>Amin</sub>	The minimum 'A-weighted' noise level received during a measuring interval.
L <sub>Amax</sub>	The maximum root mean squared 'A-weighted' sound pressure level (or maximum noise level) received during a measuring interval.
L <sub>Ceq</sub>	The equivalent continuous 'C-weighted' sound pressure level over a given period. The L <sub>Ceq,15 minute</sub> descriptor refers to an L <sub>Ceq</sub> noise level measured over a 15-minute period. C-weighting can be used to measure low frequency noise.
Day period	Monday – Saturday: 7 am to 6 pm, on Sundays and Public Holidays: 8 am to 6 pm.
Evening period	Monday – Saturday: 6 pm to 10 pm, on Sundays and Public Holidays: 6 pm to 10 pm.
Night period	Monday – Saturday: 10 pm to 7 am, on Sundays and Public Holidays: 10 pm to 8 am.
Temperature inversion	A meteorological condition where the atmospheric temperature increases with altitude.
Vibration Dose Value (VDV)	Vibration Dose is a parameter that combines the magnitude of vibration and the time for which it occurs. VDV is a cumulative measurement of the vibration level received over a 15-hour or 9-hour period (Day and night).

It is useful to have an appreciation of the decibel (dB), the unit of noise measurement. Table G.2 gives an indication as to what an average person perceives about changes in noise levels in the environment. Examples of common noise levels are provided in Figure G.1.

**Table G.2**      **Perceived change in noise**

<b>Change in sound pressure level (dB)</b>	<b>Perceived change in noise in surrounding environment</b>
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

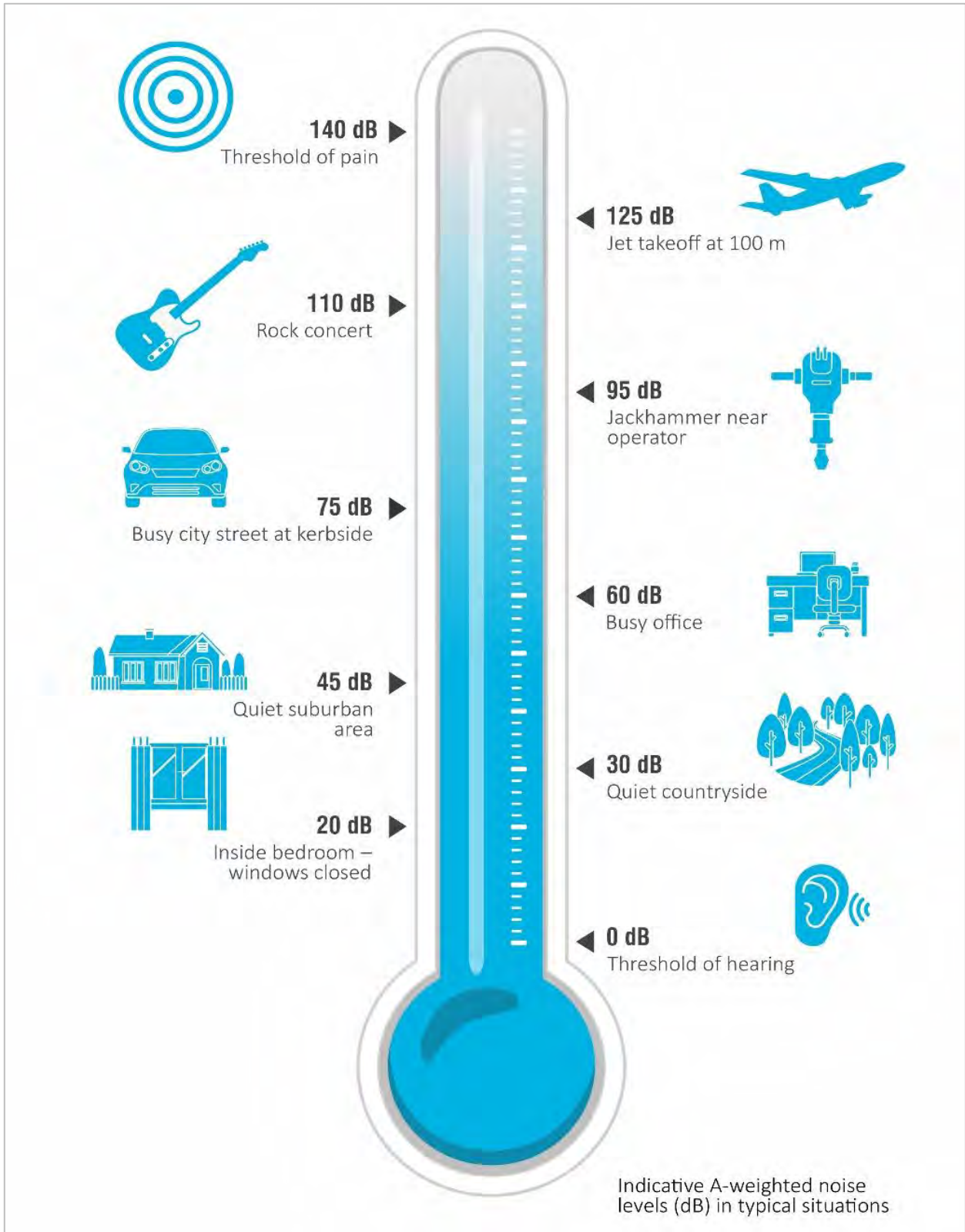


Figure G.1 Common noise levels

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Appendix A

# EPL 12700

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# 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



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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

- The noise limits set out in condition L3.1 apply under the meteorological conditions listed in 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 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;

- Day means the period from 7am to 6pm Monday to Saturday and the period from 8am to 6pm Sunday and public holidays.
- Evening means the period from 6pm to 10pm.
- 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:

- 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).
- Stability category shall be determined using the following method from Fact Sheet D of the *Noise Policy for Industry* (NSW EPA, 2017):
  - 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:



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a) with the LAeq(15mins) and LAmax 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 LAmax 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*).
- LAFmax – 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.

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Appendix B

# Calibration certificates

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# 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  $\pm 1$  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 Soc*

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%.



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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



# CERTIFICATE OF CALIBRATION

CERTIFICATE NO: C28814

EQUIPMENT TESTED: Sound Level Calibrator

Manufacturer: Svantek  
Type No: SV-36 Serial No: 106879  
Owner: EMM Consulting  
Suite 01, 20 Chandos St  
St Leonards NSW 2065

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

Parameter	Pre-Adj	Adj Y/N	Output: (db re 20 $\mu$ Pa)	Frequency: (Hz)	THD&N (%)
Level 1:	NA	N	94.08	1000.00	1.78
Level 2:	NA	N	114.04	999.98	0.63
Uncertainty:			$\pm 0.11$ dB	$\pm 0.05\%$	$\pm 0.20\%$
Uncertainty (at 95% c.l.) k=2					

## CONDITIONS OF TEST:

Ambient Pressure: 1005 hPa  $\pm 1.5$  hPa Relative Humidity: 54 %  $\pm 5\%$

Temperature: 23  $^{\circ}$ C  $\pm 2^{\circ}$  C

Date of Calibration: 15/02/2021 Issue Date: 15/02/2021

Acu-Vib Test Procedure: AVP02 (Calibrators)

Test Method: AS IEC 60942 - 2017

CHECKED BY: ..... AUTHORISED SIGNATURE: .....  
*Jack Kielt*

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.

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%.



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