Attachment I.1

Miltown Environmental Noise Measurement Results

Matrix Environmental

Monitoring of Noise Levels at the Milltown Compost Site Milltownmore, Fethard Co. Tipperary. December 2015 W0270-01

For the Attention of:

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1.0 INTRODUCTION

Milltown Compost operates a composting site at Milltownmore, Fethard, Co. Tipperary. Matrix Environmental were contracted to carry out a daytime, evening and nightime noise survey in order to assess the noise contribution from on site activities in the area of the compost site and at the nearest sensitive receptor to the compost site. The site was subsequently visited on the 14th of December 2015 to undertake the noise survey. This report presents details of both the methodologies employed and results obtained.

2.0 METHODOLOGIES

2.1 Measurement Parameters

2.1.1 L_{AeqT} Values

L_{AeqT} values represent the continuous equivalent sound level over a specified time (t). This value expresses the average levels over time and is a linear integral.

2.1.2 $L_{AF\ Max}$

The maximum RMS, A-Weighted sound pressure level occurring within a specified time period.

2.1.3 L_{90} and L_{10} Values

The L_{90} and L_{10} values represent the sound levels exceeded for a percentage of the instrument measuring time. L_{10} indicates that for 10% of the monitoring period, the sound levels were greater than the quoted value. L_{10} is a good statistical parameter for expressing event noise such as passing traffic. The L_{90} represents post event sound levels and is a good indicator of background noise levels.

2.2 Standards and Guidance

The acoustic assessment and subsequent report are in accordance with International Standard Organisation (ISO) 1996 Acoustics – Description and Measurement of Environmental Noise Part 1, 2, and 3 in addition to the Environmental Protection Agency: Environmental Noise Survey – Guidance Document NG4

2.3 Site information

2.3.1 All measurements were taken at 1.5 m height above local ground level and 1-2 m away from reflective surfaces.

2.3.2 The weather was dry and with very slight breeze at the time of the assessment.

2.3.3 Table 2.2 describes the locations of the monitoring positions for the noise monitoring assessment.

2.3.4 Monitoring Locations

The following is a detailed description of the noise monitoring points:

Measurement No.	Location
NSL	At the entrance to the NSL to the Northwest of the site

3.0 INSTRUMENTATION EQUIPMENT USED

The following equipment was employed during the acoustic assessment on 14th of December 2015.

Bruel & Kjear Light Noise Monitor
Model No: 2250 Light Serial No. 2754170
Date of Certificate and Calibration 12/08/2015
Microphone Type: B & K Type 4950 Serial No: 2585972
Calibrator: B & K Type 4231 Serial No: 2343370
Tripod

On Site Calibration

The instrument was calibrated immediately before and after the measurement periods with no drift in calibration level noted.

4.0 RESULTS

Tables 4.1 present the results of the noise monitoring survey carried out at the Milltownmore site on the 14th of December 2015.

TABLE 4.1: DAY-TIME NOISE MEASUREMENT RESULTS 15:00-17:00					
Location / Measurement No.	Measurement Period (min)	L_{eq} dB(A)	L_{10} dB(A)	L_{90} dB(A)	$L_{F\ Max}$ dB(A)
NSL No1	30	49	53	40	80
NSL No2	30	58	55	43	85
NSL No3	30	47	50	39	74

TABLE 4.2: EVENING-TIME NOISE MEASUREMENT RESULTS 19:00-19:45					
Location / Measurement No.	Measurement Period (min)	L_{eq} dB(A)	L_{10} dB(A)	L_{90} dB(A)	$L_{F\ Max}$ dB(A)
NSL No1	15	35	40	32	46
NSL No2	15	38	44	33	50

TABLE 4.3: NIGHT-TIME NOISE MEASUREMENT RESULTS 19:00-19:45					
Location / Measurement No.	Measurement Period (min)	L_{eq} dB(A)	L_{10} dB(A)	L_{90} dB(A)	$L_{F\ Max}$ dB(A)
NSL No1	No Night time monitoring was carried out at the site during the survey, the site is not operational during the hours 18:00 to 07:00.				
NSL No2					

5.0 DISCUSSION

NIGHT-TIME NOISE

The Miltown Composting site is only operational during daytime hours (Fans remain on during the evening and night-time periods). It was concluded that no night time noise monitoring was required as the evening time results of 35 dB(A) and 37 dB(A) were below the night-time limit of 45dB(A) and no site noise was audible at the NSL once the site activities concluded.

EVENING TIME NOISE.

Location - NSL: At entrance to the NSL.

No tonal noise observed at the NSL - see graphs in appendix 1

Measurement No1:

The L_{Aeq} recorded at this location of 35 dB (A) is within the evening time limit of 50 dB (A) as stipulated in the waste licence. The L_{AFmax} was caused by a dog barking in a nearby farmyard / kennel . No site noise was audible at the NSL during this monitoring period.

Measurement No2:

The L_{Aeq} recorded at this location of 37 dB (A) is within the evening time limit of 50 dB (A) as stipulated in the waste licence. The L_{AFmax} was caused by a dog barking in a nearby farmyard / kennel. No site noise was audible at the NSL during this monitoring period.

DAYTIME NOISE.

Location - NSL: At entrance to the NSL.

No tonal noise observed at the NSL - see graphs in appendix 1

Measurement No1:

The L_{Aeq} recorded at this location of 48 dB (A) is within the day time limit of 55 dB (A) as stipulated in the waste licence. The L_{AFmax} was caused by a car passing by the noise meter. The main contributors to the noise levels in the vicinity of the noise monitoring location was an employee car and a tractor working in the field, bird song and farm activities. No site noise was audible at the NSL during this monitoring period.

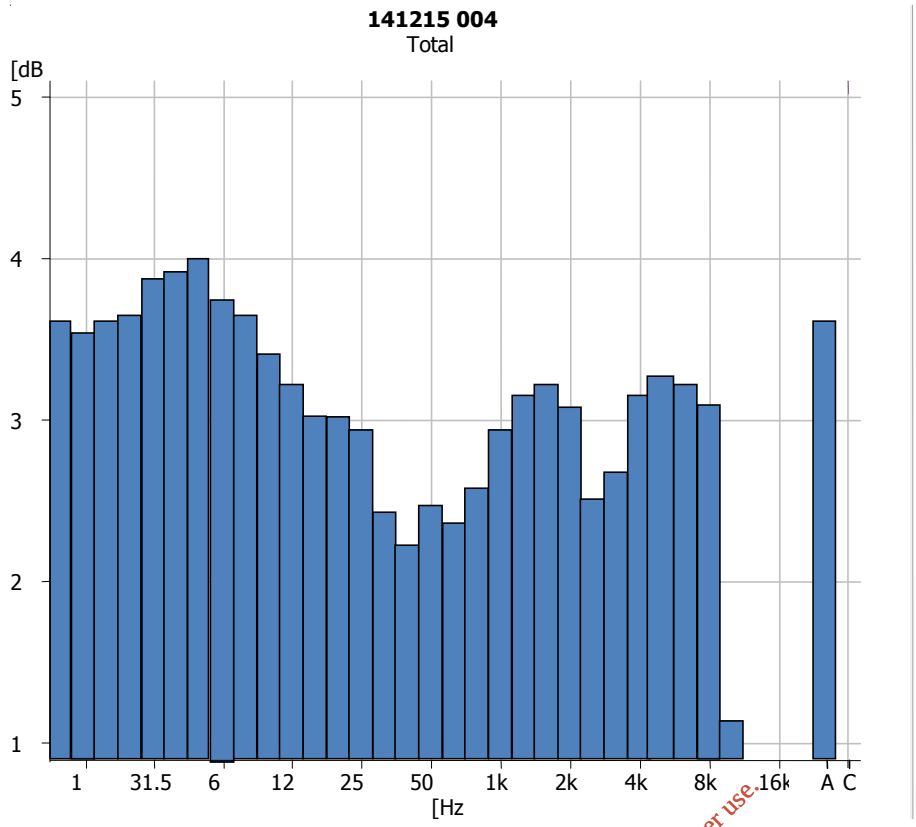
Measurement No2:

The L_{Aeq} recorded at this location of 52 dB (A) is within the day time limit of 55 dB (A) as stipulated in the waste licence. The L_{AFmax} was caused by a tractor passing by the noise meter. The main contributors to the noise levels in the vicinity of the noise monitoring location was two cars (both associated with the farm) and the pack of hounds which were exercising during this monitoring period, bird song and other farm activities. No site noise was audible at the NSL during this monitoring period.

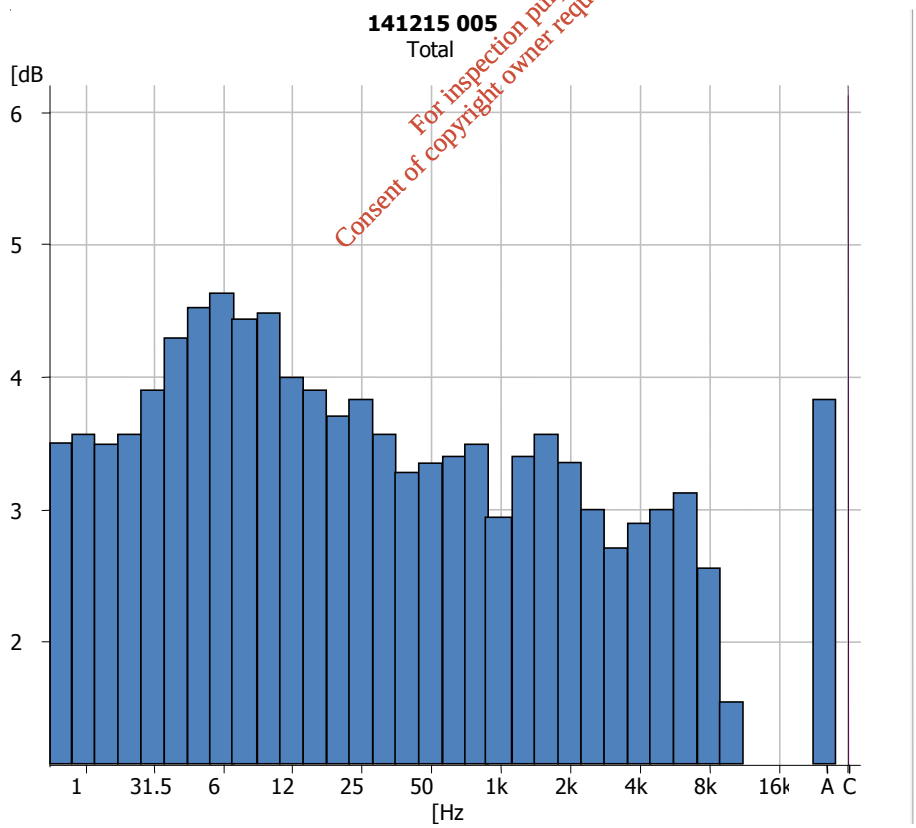
Measurement No3:

The L_{Aeq} recorded at this location of 46 dB (A) is within the day time limit of 55 dB (A) as stipulated in the waste licence. The L_{AFmax} was caused by a jeep (farm) passing by the noise meter. The main contributors to the noise levels in the vicinity of the noise monitoring location was the jeep and bird song. No site noise was audible at the NSL during this monitoring period.

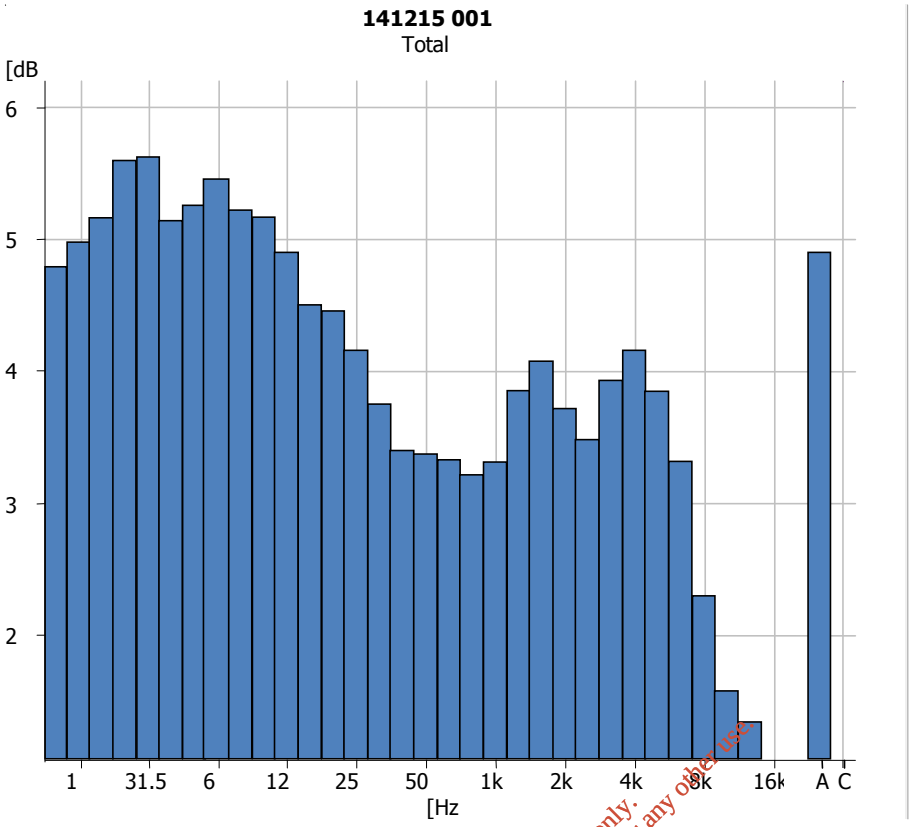
Appendix 1
Tonal Graph



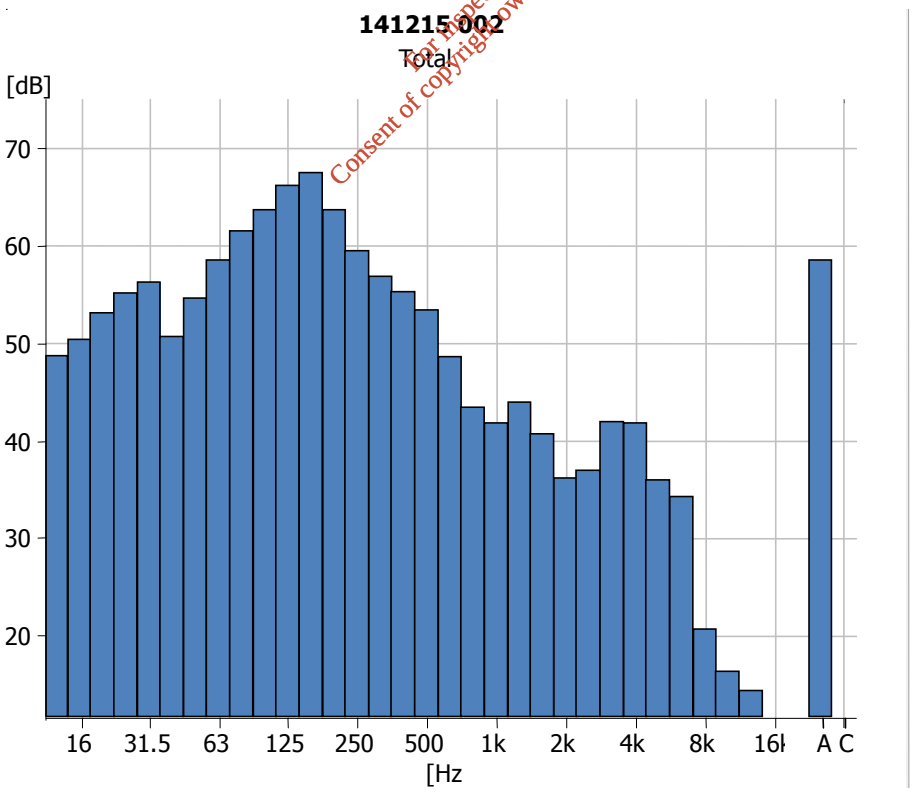
Sensitive Receptor NSL Evening-time - Tonal Graph No.1



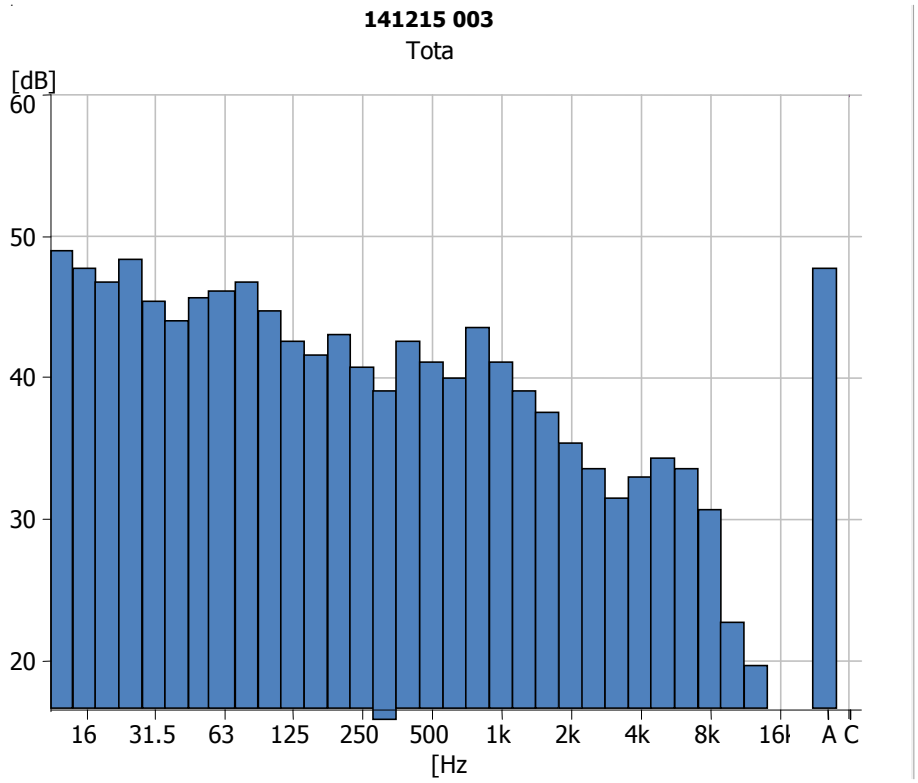
Sensitive Receptor NSL Evening-time - Tonal Graph No.2



Sensitive Receptor NSL Daytime - Tonal Graph No.1



Sensitive Receptor NSL Daytime - Tonal Graph No.2



Sensitive Receptor NSL Daytime - Tonal Graph No.3