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QUARTERLY NOISE MANAGEMENT REPORT FOR BIRKENHEAD WORKS

COMPLIANCE DATE: 14/08/19 – Quarter 2, 2019
EPA Licence 1126: Noise Management Plan (U-787)

Licensed site: **Adelaide Brighton Cement, Birkenhead Works**

62 Elder Road, Birkenhead, SA 5015

Date of Submission: **14 August 2019**

Version Number: **1**

Report Submitted by: Environmental Engineer

Certified by: Compliance Manager

I certify that to the best of my knowledge and ability all the information in this report is a true and accurate reflection of the regulatory monitoring performed.

Glossary of acoustic terminology

dB(A) A unit of measurement, decibels(A), of sound pressure level which has its frequency characteristics modified by a filter ("A-weighted") so as to more closely approximate the frequency response of the human ear.

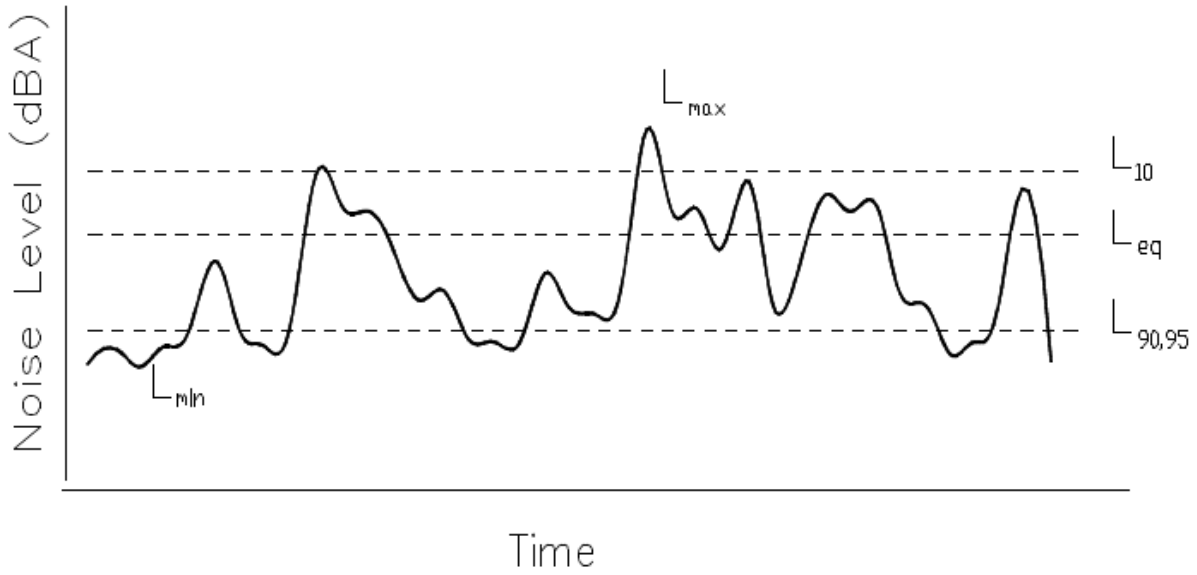
L_1 The noise level which is equalled or exceeded for 1% of the measurement period. L_1 is an indicator of the impulse noise level, and is used in Australia as the descriptor for intrusive noise (usually in dBA).

L_{10} The noise level which is equalled or exceeded for 10% of the measurement period. L_{10} is an indicator of the mean maximum noise level, and is used in Australia as the descriptor for intrusive noise (usually in dBA).

L_{90} The noise level which is equalled or exceeded for 90% of the measurement period. L_{90} is an indicator of the mean minimum noise level, and is used in Australia as the descriptor for background or ambient noise (usually in dBA).

L_{eq} The equivalent continuous noise level for the measurement period. L_{eq} is an indicator of the average noise level (usually in dBA).

L_{max} The maximum noise level for the measurement period (usually in dBA).



Note: *The subjective reaction or response to changes in noise levels can be summarised as follows*:

A 3 dB(A) increase in sound pressure level is required for the average human ear to notice a change; a 5 dB(A) increase is quite noticeable and a 10 dB(A) increase is typically perceived as a doubling in loudness

Monitoring Objective	The quarterly report will include where applicable: • Details of noise complaints (excluding complainant name and identifying address details for reasons of confidentiality), received during the quarter including the outcomes of the complaint investigation and where applicable, corrective actions implemented. • Details on the progress of noise attenuation projects including effectiveness. • Details of noise monitoring reports. • Details of noise minimisation activities.
Monitoring Plan	This monitoring report complies with the Noise Management Plan approved on 16 August 2018 by the SA EPA. The Plan is available on the ABC Birkenhead Community Website: http://www.birkenheadcommunity.com.au
Noise Complaints Summary	

Date & Time	Location	Description	Action taken
13/04/2019, 12:15 AM	Hilton street, Birkenhead	Resident reported alarm going off at 12:15 am and a short term repeating (4-5 seconds) pulsating type noise	Site inspection and alarm register did not identify any site alarms. Site and residential area inspection identified pulsating noise was coming from a dust collector. Dust collector was immediately isolated and repaired.
25/04/2019, 6:53 AM 25/04/2019, 6:54 AM 29/04/2019, 7:15 AM	Alfred street, Peterhead Unknown/ not provided Unknown/ not provided	Buzzing noise Buzzing noise Buzzing noise	Site and residential locations investigated in conjunction with resident over a number of days and nights to identify possible sources. Two possible sources identified, including, an air blower on the 9th floor and a large fan duct at ground level (both on north side of main plant/tower). Comprehensive noise abatement measures implemented for both sources - refer to noise minimisation activities section for details. Resident verified noise was no longer audible after implementation of noise abatement measures.
19/05/2019, 11:15 PM 20/05/2019, 9:00 AM 20/05/2019, 9:10 AM	Unknown/ not provided Heath street, Birkenhead Heath street, Birkenhead	Squealing noise from limestone reclaimer shed adjacent Victoria road Reported squealing noise earlier that evening Reported squealing noise earlier that evening	Damaged limestone blades on limestone reclaimer identified as the source. Limestone reclaimer plant shut down as soon as practicable and repairs completed.

Noise Monitoring Reports & Minimisation Activities	Investigation of a noise complaint on 25/4/2019 identified two potential noise sources, 4A Air slide fan and 4B ESP fan outlet duct. Noise attenuation measures were applied to these sources resolved the noise complaint. **4A Air slide fan** A wooden frame was constructed and lined with an acoustic noise barrier to reduce noise levels from the fan by 8 dB(A). Pre noise attenuation | Post noise attenuation-acoustic noise barrier installed **4B ESP fan outlet duct** Noise attenuating insulation was applied to the duct and clad with colour bond steel sheeting to reduce noise levels from the duct by 3 dB(A). Application of noise attenuating insulation to duct | Insulated duct

Noise Monitoring reports & Minimisation Activities	**Environmental Improvement Programme - Compliance Project 16** The kiln feed elevator gearbox was replaced and the western wall cladding was reinstated in April 2019. This project resulted in a reduction of 9 dB(A) at 1m distance from the replaced gearbox. Replaced gear box Reinstated cladding (dark blue section)