



Adelaide Brighton Cement Ltd

ABN 96 007 870 199

QUARTERLY NOISE MANAGEMENT REPORT FOR BIRKENHEAD WORKS

COMPLIANCE DATE: 14/04/19 – Quarter 1, 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 May 2019

Version Number: 1



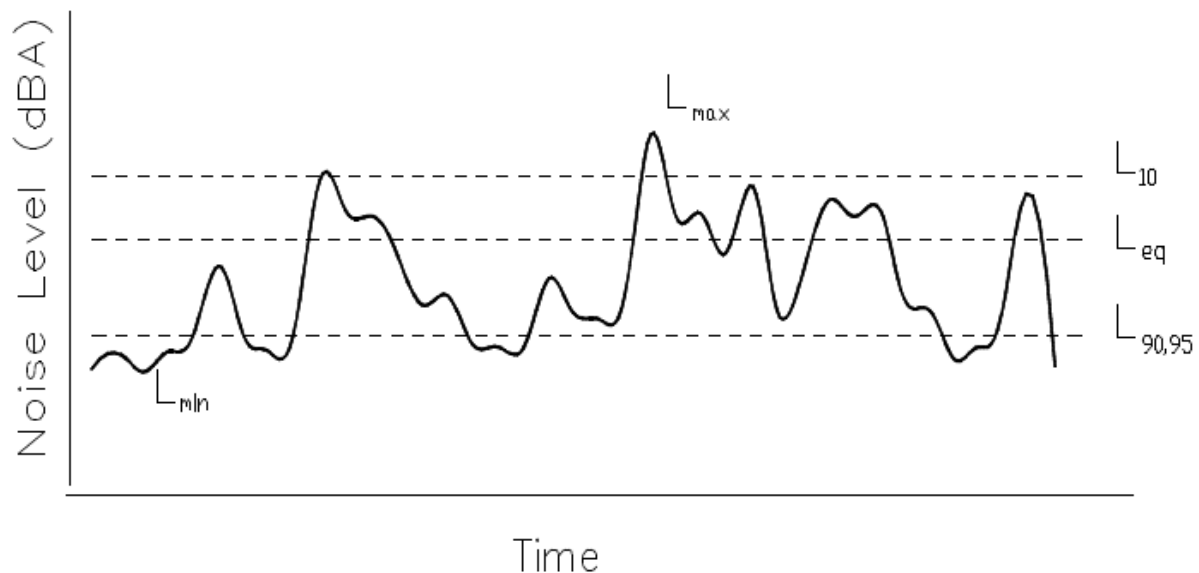
Report Submitted by: Environmental Engineer

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.
- L₁** The noise level which is equalled or exceeded for 1% of the measurement period. L₁ is an indicator of the impulse noise level, and is used in Australia as the descriptor for intrusive noise (usually in dBA).
- L₁₀** The noise level which is equalled or exceeded for 10% of the measurement period. L₁₀ is an indicator of the mean maximum noise level, and is used in Australia as the descriptor for intrusive noise (usually in dBA).
- L₉₀** The noise level which is equalled or exceeded for 90% of the measurement period. L₉₀ 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	<p>The quarterly report will include where applicable:</p> <ul style="list-style-type: none"> • Details of noise complaints (excluding complainant name and identifying address details (for reasons of confidentiality), received during the quarter, including 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 other noise minimisation activities 																				
Monitoring Plan	<p>This monitoring report complies with the Noise Management Plan approved on 16 August 2018 by the SA EPA.</p> <p>The Plan is available on the ABC Birkenhead Community Website: http://www.birkenheadcommunity.com.au</p>																				
Noise Complaints Summary	<table border="1"> <thead> <tr> <th data-bbox="316 658 507 725">Date & Time</th> <th data-bbox="515 658 671 725">Location</th> <th data-bbox="679 658 927 725">Description</th> <th data-bbox="935 658 1487 725">Action taken</th> </tr> </thead> <tbody> <tr> <td data-bbox="316 736 507 987">9/01/2019, 10:40 PM</td> <td data-bbox="515 736 671 987">Mary street, Peterhead</td> <td data-bbox="679 736 927 987">Resident could hear jackhammering from plant</td> <td data-bbox="935 736 1487 987">Shift Supervisor attended area and identified jackhammering coming from removal of internal kilns bricks (start of shutdown). Tried an alternative area, however, noise could still be heard - ceased all jackhammering during night time in-line with Shutdown Noise Management plan.</td> </tr> <tr> <td data-bbox="316 999 507 1144">22/01/2019, 3:06 AM</td> <td data-bbox="515 999 671 1144">Baker street, Birkenhead</td> <td data-bbox="679 999 927 1144">Banging noise on and off</td> <td data-bbox="935 999 1487 1144">Shift Supervisor attended area and identified noise source (Level 5 - replacement/rebuild of 3A cyclone). Work was immediately stopped and completed on day shifts.</td> </tr> <tr> <td data-bbox="316 1155 507 1547">27/01/2019, 7:39 AM 28/01/2019, 6:53 AM 31/01/2019, 6:30 AM</td> <td data-bbox="515 1155 671 1547">Alfred street, Peterhead</td> <td data-bbox="679 1155 927 1547">Resident reported hearing beeping noise at night at 10 second intervals</td> <td data-bbox="935 1155 1487 1547">Investigation identified noise source as vehicles not fitted with white noise/quackers reversing beepers (wide range frequency noise that does not travel far) Vehicles immediately fitted with white noise reversing beepers once identified in-line with company standards. Resident satisfied with outcome and complimentary of ABC responses/follow up processes each time an issue is raised.</td> </tr> <tr> <td data-bbox="316 1559 507 1644">10/02/2019</td> <td data-bbox="515 1559 671 1644">Unknown not provided</td> <td data-bbox="679 1559 927 1644">High pitched buzzing from factory</td> <td data-bbox="935 1559 1487 1644">Immediately investigated for unusual noise of that description and nothing found on site.</td> </tr> </tbody> </table>	Date & Time	Location	Description	Action taken	9/01/2019, 10:40 PM	Mary street, Peterhead	Resident could hear jackhammering from plant	Shift Supervisor attended area and identified jackhammering coming from removal of internal kilns bricks (start of shutdown). Tried an alternative area, however, noise could still be heard - ceased all jackhammering during night time in-line with Shutdown Noise Management plan.	22/01/2019, 3:06 AM	Baker street, Birkenhead	Banging noise on and off	Shift Supervisor attended area and identified noise source (Level 5 - replacement/rebuild of 3A cyclone). Work was immediately stopped and completed on day shifts.	27/01/2019, 7:39 AM 28/01/2019, 6:53 AM 31/01/2019, 6:30 AM	Alfred street, Peterhead	Resident reported hearing beeping noise at night at 10 second intervals	Investigation identified noise source as vehicles not fitted with white noise/quackers reversing beepers (wide range frequency noise that does not travel far) Vehicles immediately fitted with white noise reversing beepers once identified in-line with company standards. Resident satisfied with outcome and complimentary of ABC responses/follow up processes each time an issue is raised.	10/02/2019	Unknown not provided	High pitched buzzing from factory	Immediately investigated for unusual noise of that description and nothing found on site.
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Noise Attenuation Projects	<p>No noise attenuation projects were completed for the quarter</p>																				

Noise Monitoring reports & Other Minimisation Activities

Noise Monitoring reports

Vipac Acoustic Engineers & Scientists were engaged to conduct a site noise study over December 2018 to February 2019 (ref: 50-18-0036-TPR-6755126-1,19 February 2019), to update the site noise emissions profile including:

- A site survey of all major on-site noise sources
- Updated source intensity sound model, including the incorporation of the completed noise projects from the ABC Environmental Improvement Program 1126 EIP Version 3 - 31 January to 30 June 2018
- The noise level predictions generated by the updated model were validated against on-site and off-site noise measurements, and the noise sources having the most significant contribution to off-site noise impacts were identified. On this basis, potential noise abatement projects have been recommended
- Recommended noise abatement projects, include:
 - Cement Mill 1 & 7 Clinker Storage Gantry Fans
 - APA owned Gas Train substation
 - Kiln Feed Elevator Drive
- The above projects have been incorporated into the current EPA approved Environmental Improvement Programme

Other Minimisation Activities

January 2019 Shutdown Noise Management

- Pre-shutdown noise assessment of high potential noise impact activities and relevant controls put into place
- Noise abatement barriers installed prior to shutdown commencement for high impact activities
- If control measures were not effective modified task or self-imposed cessation of activities
- Daily noise awareness communication, including toolbox talks and written communications
- Immediate review of any complaints received and actions implemented to prevent a recurrence
- Self-imposed curfews on potentially high impact activities
- Community spot checks to confirm effectiveness of noise controls