



Adelaide Brighton Cement Ltd

an **ADBRI** company

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QUARTERLY NOISE MANAGEMENT REPORT FOR BIRKENHEAD WORKS

COMPLIANCE DATE: 14/02/2022– Quarter 4 2021
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 February 2022

Version Number: 1

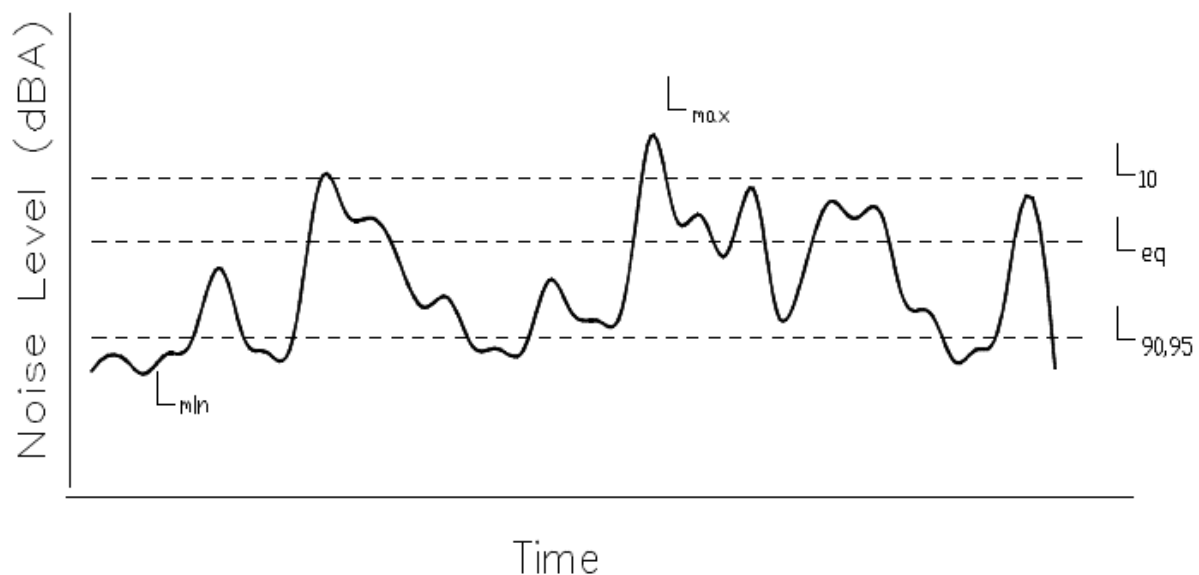


Report Submitted by: Advisor Environment - C&L (SA/NSW/NT)

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 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	<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: https://adelaidebrightoncommunity.com.au/</p>																																
Noise Complaints Summary	<p>The table below summarises the noise complaints for the reporting period.</p> <table border="1" data-bbox="336 723 1522 1440"> <thead> <tr> <th>Date and Time</th> <th>Location</th> <th>Description</th> <th>Action Taken</th> </tr> </thead> <tbody> <tr> <td>16/10/2021 16:30</td> <td>Alfred Street</td> <td>Squealing noise every weekend</td> <td>Investigation did not identify source. Normal plant activity</td> </tr> <tr> <td>30/10/2021 8:55</td> <td>Alfred Street</td> <td>Whistling noise</td> <td>4B conditioning tower sprays - high water flow rate. Stopped sprays. Resident reported noise had reduced.</td> </tr> <tr> <td>10/11/2021 2:22</td> <td>Alfred Street</td> <td>Ringing noise</td> <td>4B conditioning tower sprays - high water flow rate. Flow rate reduced to sprays</td> </tr> <tr> <td>3/12/2021 7:23</td> <td>Alfred Street</td> <td>Ringing noise.</td> <td>4B conditioning tower sprays - high water flow rate. Water flow increased to sprays. Confirmed noise complaint resolved with resident.</td> </tr> <tr> <td>4/12/2021 11:45</td> <td>Alfred Street</td> <td>Ringing noise.</td> <td>4B conditioning tower sprays - high water flow rate. Water flow to sprays was turned off. Spoke to resident and confirmed noise was gone.</td> </tr> <tr> <td>5/12/2021 2:32</td> <td>Alfred Street</td> <td>Whistling noise coming from the plant.</td> <td>4B conditioning tower sprays - high water flow rate Water turned off to sprays</td> </tr> <tr> <td>14/12/2021 7:11</td> <td>Alfred Street</td> <td>really loud ringing noise coming from plant</td> <td>4B conditioning tower sprays - high water flow rate Water turned off to sprays</td> </tr> </tbody> </table> <p>These noise complaints have all been from one resident who seems to be on some occasions picking up a noise from the 4B Conditioning Tower water spray nozzles.</p> <p>Increasing or decreasing the water flow rate appears to resolve the noise complaint at the time.</p> <p>The intermittent and variable nature of this noise source makes it difficult to find an effective solution.</p> <p>Various acoustic treatments have been installed on the spray nozzles. The last treatment Pyrotech Soundlag 4525C (a highly flexible foam-based composite acoustic pipe lagging product), was installed on the spray nozzle pipework in January 2021.</p> <p>This solution appeared to be effective until recurrence of complaints from 30/10/2021.</p> <p>ABC is continuing to find an effective solution for this noise source</p>	Date and Time	Location	Description	Action Taken	16/10/2021 16:30	Alfred Street	Squealing noise every weekend	Investigation did not identify source. Normal plant activity	30/10/2021 8:55	Alfred Street	Whistling noise	4B conditioning tower sprays - high water flow rate. Stopped sprays. Resident reported noise had reduced.	10/11/2021 2:22	Alfred Street	Ringing noise	4B conditioning tower sprays - high water flow rate. Flow rate reduced to sprays	3/12/2021 7:23	Alfred Street	Ringing noise.	4B conditioning tower sprays - high water flow rate. Water flow increased to sprays. Confirmed noise complaint resolved with resident.	4/12/2021 11:45	Alfred Street	Ringing noise.	4B conditioning tower sprays - high water flow rate. Water flow to sprays was turned off. Spoke to resident and confirmed noise was gone.	5/12/2021 2:32	Alfred Street	Whistling noise coming from the plant.	4B conditioning tower sprays - high water flow rate Water turned off to sprays	14/12/2021 7:11	Alfred Street	really loud ringing noise coming from plant	4B conditioning tower sprays - high water flow rate Water turned off to sprays
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Pyrotech Soundlag 4525C installed on the spray nozzle pipework in January 2021.