



**Adelaide Brighton Cement Ltd**

an **ADBRI** company

**adelaidebrighton.com.au**

Adelaide Brighton Cement Ltd

ABN 96 007 870 199

PO Box 77

Port Adelaide SA 5015

+61 8 8300 0300

## ENVIROMENTAL IMROVEMENT PROGRAMME (EIP) QUARTERLY REPORT FOR BIRKENHEAD WORKS

---

**COMPLIANCE DATE: 14/05/2021 – Quarter 1, 2021**

**EPA Licence 1126: Environmental Improvement Programme (U-583)**

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

**62 Elder Road, Birkenhead, SA 5015**

**Date of Submission: 14 May 2021**

**Version Number: 1**




Report Submitted by: Sustainability/Environmental Engineer

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

<b>Purpose</b>	The purpose of the Environmental Improvement Programme (EIP) is to reduce noise and fugitive particulate emissions from the site.
<b>Background Information</b>	<p>In order to reduce its environmental impact, Adelaide Brighton Cement Ltd, has developed an EIP that contains projects to reduce noise and fugitive particulate emissions. These projects were identified from the following inputs:</p> <ul style="list-style-type: none"> <li>• Adelaide Brighton Cement Limited Report, August 2018, “Assessment of Options Report”</li> <li>• Katestone Environmental Report, August 2018 “Birkenhead Cement Plant – Options Assessment Report”</li> <li>• Katestone Environmental Report 2017 “Air Quality Assessment of the Birkenhead Cement Plant”</li> <li>• Vipac Engineers and Scientists Report, August 2018 “Environmental Noise Model Update”</li> <li>• Vipac Engineers and Scientists Report, February 2019 “Noise model update and Abatement Options”</li> </ul> <p>Thirteen fugitive particulate and three noise improvement projects were identified and incorporated into an EPA approved EIP.</p> <p>EIP project implementation is tracked through the completion of 52 compliance actions over the life of the EIP.</p> <p>The EIP was approved by the EPA on 28 February 2019. The EIP has been revised in accordance with the EIP. The latest EIP - Revision 5 approved by the EPA on the 4/11/2020 is available on the ABC Birkenhead Community Website: <a href="https://adelaidebrightoncommunity.com.au/">https://adelaidebrightoncommunity.com.au/</a></p>
<b>Reporting Objective</b>	<p>Quarterly EIP progress report providing:</p> <ul style="list-style-type: none"> <li>• Details of steps taken to progress compliance actions</li> <li>• Details of proposed next steps to be taken</li> </ul>
<b>Quarterly Report</b>	<p>ABC advised the EPA in December 2020 of changes to the annual plant shutdown and cement mill 6 shutdown timing. The annual plant shutdown has been delayed as critical parts for kiln repairs, and EIP project 2 – (portable wind fence) components, which are sourced from overseas have been delayed due to COVID-19 impacts on shipping. The implementation of EIP projects, 2,4,5,6 and 7 are affected by the shipping and plant shutdown delays, resource constraints. Revised implementation dates have been agreed with the EPA. EIP revision 6 is pending EPA approval.</p> <p>The EIP progress report for the quarter is tabled below</p>













**Adelaide Brighton Cement Ltd (ABC) Environmental Improvement Programme (EIP)**

**1 March 2019 – December 2022**

EIP Project	Category	Project	Compliance Action	Project Milestones (Compliance actions)	Actions & Outcomes
2	Fugitive Dust - Stockpile emission reduction	Wind curtain - Limestone stockpile	6	<p>Subject to obtaining capital approval by 29/09/2020, ABC will complete the installation of the wind curtain by 1/02/2021.</p> <p><b>Variation:</b>  <b>ABC agreed with the EPA to complete the installation of the wind curtain before commencement of the limestone stockpile reclamation in early April 2021</b></p> <p><b>Project completed</b></p>	<p>Arrival of wind curtain parts from overseas was late due to COVID-19 shipping delays. ABC informed the EPA of the delay and it was agreed that installation of the portable wind curtain could be achieved before commencement of the limestone stockpile reclamation in early April 2021.</p> <p>ABC completed installation of 5 portable wind fences on the 22/3/2021, before commencement of the limestone stockpile reclamation in early April 2021.</p> <ul style="list-style-type: none"> <li>• 5 portable wind fences (6m high x10m length each) installed at the working face of the limestone stockpile</li> <li>• A porous windbreak fence can reduce wind speed minimising dust lift-off and transport</li> <li>• A portable wind fence provides flexibility to manage changing dynamics of the stockpile size, providing an effective means of reducing dust emissions from materials handling activities at the working face of the stockpile</li> </ul>  <p><b>Outcome:</b>  Independent air quality modelling and analysis indicates that a portable wind curtain located at the working face of the stockpile when used in conjunction with chemical polymers applied to stockpile sides and exposed surface areas, and use of stockpile covers applied to 11,500m<sup>2</sup> of inactive non-working exposed surface areas of the limestone stockpile may reduce maximum 24-hr average concentrations of PM<sub>10</sub> at the Community Park by 2.3 µg/m<sup>3</sup>.</p>

**Adelaide Brighton Cement Ltd (ABC) Environmental Improvement Programme (EIP)**

**1 March 2019 – December 2022**

EIP Project	Category	Project	Compliance Action	Project Milestones (Compliance actions)	Actions & Outcomes														
3	Fugitive Dust - Stockpile emission reduction	Geofabric – Limestone stockpile	11	<p>Subject to obtaining capital approval by 27/09/2019, ABC will complete the installation of Geo fabric on the 11,500 m<sup>2</sup> Of inactive stockpile areas by 13/03/2020</p> <p><i>Variation:</i> Subject to obtaining capital approval by 27/09/2019, ABC will complete the installation of Geo fabric to 77% of 11,500 m<sup>2</sup> of inactive stockpile areas by 30/09/2020, with the balance completed by 17/01/2021.</p> <p><i>This variation has been accepted by the EPA</i></p> <p><b>Project completed</b></p>	<p>ABC completed the installation of “Sand Tarps” (Geofabric) on inactive surface areas of the limestone stockpile on 11/01/2021.</p> <p>At the time of preparing the EIP, ABC anticipated 11,500 m<sup>2</sup> of inactive surface area would be available by the 13/03/2020, to which a cover could be applied. Due to the dynamic nature of the stockpile build, this was not possible and variations to the project milestone was agreed with the EPA, allowing for progressive application of covers as the stockpile build enabled this to occur. Progress is summarised in the table below:</p> <table border="1" data-bbox="987 523 1951 1353"> <thead> <tr> <th data-bbox="987 523 1126 563">Date</th> <th data-bbox="1126 523 1294 563"></th> <th data-bbox="1294 523 1951 563">Photos</th> </tr> </thead> <tbody> <tr> <td data-bbox="987 563 1126 759">18/3/2020</td> <td data-bbox="1126 563 1294 759">Ariel view</td> <td data-bbox="1294 563 1951 759"></td> </tr> <tr> <td data-bbox="987 759 1126 1007">30/09/2020</td> <td data-bbox="1126 759 1294 1007">Top of stockpile</td> <td data-bbox="1294 759 1951 1007"></td> </tr> <tr> <td data-bbox="987 1007 1126 1219" rowspan="2">11/01/2021</td> <td data-bbox="1126 1007 1294 1219">Ariel view</td> <td data-bbox="1294 1007 1951 1219"></td> </tr> <tr> <td data-bbox="1126 1219 1294 1353">Port River Side</td> <td data-bbox="1294 1219 1951 1353"></td> </tr> </tbody> </table> <p><b>Outcomes:</b></p> <ul style="list-style-type: none"> <li>• Covering inactive areas of the stockpile with Sand Tarps prevents wind erosion and fugitive dust from these areas of the stockpile.</li> <li>• This project is predicted to reduce maximum 24-hr average concentrations of PM10 at the Community Park by 0.9 µg/m<sup>3</sup>.</li> </ul>	Date		Photos	18/3/2020	Ariel view		30/09/2020	Top of stockpile		11/01/2021	Ariel view		Port River Side	
Date		Photos																	
18/3/2020	Ariel view																		
30/09/2020	Top of stockpile																		
11/01/2021	Ariel view																		
	Port River Side																		

**Adelaide Brighton Cement Ltd (ABC) Environmental Improvement Programme (EIP)**  
**1 March 2019 – December 2022**

EIP Project	Category	Project	Compliance Action	Project Milestones (Compliance actions)	Actions & Outcomes
4	Fugitive Dust - Transfer operation	MM Wheel wash system	12	<p>By the 23/10/2020, ABC will complete an engineering study, including selection and installation of truck wheel wash to enable approval for capital expenditure.</p> <p><b><i>Variation proposed:</i></b></p> <p><b><i>By the 01/06/2021, ABC will complete an engineering study, including selection and installation of truck wheel wash to enable approval for capital expenditure.</i></b></p>	<p>Unplanned operational activity related to COVID-19 pandemic restrictions and critical plant equipment maintenance requirements have delayed progress on this project.</p> <p>Significant additional resource has been devoted to both the Annual Shutdown and the dry-docking arrangements for seaworthy recertification of the Accolade vessel. COVID 19 has required additional planning and the sourcing of alternative dry-docking facilities and maintenance providers, that align with the Annual Plant shutdown period in January.</p> <p>Rescheduling compliance actions, 12, 13 and 14 will still enable the project to be completed by the current due date as required by the EIP and compliance action 15.</p> <p>ABC requested that the EIP be changed to reflect the following:                      Compliance action 12 completion date of 1/6/2021</p>

**Adelaide Brighton Cement Ltd (ABC) Environmental Improvement Programme (EIP)**

**1 March 2019 – December 2022**

EIP Project	Category	Project	Compliance Action	Project Milestones (Compliance actions)	Actions & Outcomes
5	Fugitive Dust- Conveyors	CS2 CR2 CR3 wind shielding	19	<p>Subject to capital approval by 9/11/2020 and the annual kiln shutdown commencing on 4/1/2021, ABC will complete installation of the CS2 CR2 CR3 wind shielding by 01/02/2021.</p> <p><b>Variation:</b></p> <p><b>Subject to capital approval by 9/11/2020 and the annual kiln shutdown commencing on 24/2/2021, ABC will complete installation of the CS2 CR2 CR3 wind shielding by 30/04/2021.</b></p>	<p>ABC has requested a variation due to COVID -19 impacts, delayed resources and annual plant outage as follows:</p> <p>Subject to capital approval by 9/11/2020 and the annual kiln shutdown commencing on 24/2/2021, ABC will complete installation of the CS2 CR2 CR3 wind shielding by 30/04/2021.</p>

**Adelaide Brighton Cement Ltd (ABC) Environmental Improvement Programme (EIP)**

**1 March 2019 – December 2022**

EIP Project	Category	Project	Compliance Action	Project Milestones (Compliance actions)	Actions & Outcomes
6	Fugitive Dust – Storage/processing buildings	CM6 CF6 Clinker Transfer Point Dust Collector	22	<p>Subject to capital approval by 28/11/2019 and CM6 mill shutdown commencing 14/04/2020, ABC will complete commissioning of dust collection system by 6/07/2020.</p> <p><b>Variation:</b> <b>Subject to capital approval by 28/11/2019 and CM6 mill shutdown commencing in January 2021, ABC will complete commissioning of the dust collection system by 8/3/2021</b></p> <p><b>EPA has accepted the variation.</b></p> <p><b>Variation:</b> <b>Subject to capital approval by 28/11/2019 and CM6 mill shutdown in April 2021, ABC will complete commissioning of dust collection system by 30/06/2021.</b></p>	<p>Due to the COVID-19 pandemic and the need to minimise health risks, the scope of work for CM6 shutdown has been significantly restricted to only those activities critical to ensure ongoing and safe operation of the mill.</p> <p>ABC advises that it is unable to install the dust collection system within the timeframes required by EIP Project 6 (during the CM6 shutdown) and seeks a variation in the completion date for the EIP Project.</p> <p>ABC proposes to install the dust collection system on the next CM6 shutdown which is expected to be during the annual shutdown planned for January 2021.</p> <p>ABC therefore requested a revised completion date of 8/3/2021:</p> <p>EPA has accepted the proposed variation.</p> <p>As CM6 shutdown has been rescheduled to April 2021, ABC has requested a revised completion date of 30/6/2021</p>



**Adelaide Brighton Cement Ltd (ABC) Environmental Improvement Programme (EIP)**

**1 March 2019 – December 2022**

EIP Project	Category	Project	Compliance Action	Project Milestones (Compliance actions)	Actions & Outcomes
7	Fugitive Dust - Storage/processing buildings	CM6 Clinker Gantry entry air knives	25	<p>Subject to capital approval by 30/10/2020, ABC will complete the installation of air knives on the truck entry to the CM6 Clinker Gantry by 26/02/2021.</p> <p><b><i>Variation</i></b>  <b><i>Subject to capital approval by 30/10/2020, ABC will complete the installation of air knives on the truck entry to the CM6 Clinker Gantry by 17/05/2021.</i></b></p>	Annual plant shutdown was rescheduled due to COVID-19, impacting on access and resource to install, as a consequence, ABC has applied to the EPA for a variation