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**ENVIRONMENTAL IMPROVEMENT PROGRAMME (EIP)
QUARTERLY REPORT FOR BIRKENHEAD WORKS
EPA Approved Document no: 1126 EIP Version 1**

COMPLIANCE DATE: 15/11/19 – Quarter 3, 2019

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

Licensed site: Adelaide Brighton Cement, Birkenhead Works

62 Elder Road, Birkenhead, SA 5015

Date of Submission: 15 November 2019

Version Number: 1



Report Submitted by: 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.

Purpose	The purpose of the Environmental Improvement Programme (EIP) is to reduce noise and fugitive particulate emissions from the site.
Background Information	<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"> • Adelaide Brighton Cement Limited Report, August 2018, “Assessment of Options Report” • Katestone Environmental Report, August 2018 “Birkenhead Cement Plant – Options Assessment Report” • Katestone Environmental Report 2017 “Air Quality Assessment of the Birkenhead Cement Plant” • Vipac Engineers and Scientists Report, August 2018 “Environmental Noise Model Update” • Vipac Engineers and Scientists Report, February 2019 “Noise model update and Abatement Options” <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 approved by the EPA on 28 February 2019 is available on the ABC Birkenhead Community Website: http://www.birkenheadcommunity.com.au/</p>
Reporting Objective	<p>Quarterly EIP progress report providing:</p> <ul style="list-style-type: none"> • Details of steps taken to progress compliance actions • Details of proposed next steps to be taken
Quarterly Report	EIP progress report for the quarter is tabled below

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
1	Fugitive Dust - Stockpile emission reduction	Relocate Bauxite Stockpile and cover with Geofabric	2	By the 23/08/2019, ABC will obtain capital expenditure approval for the purchase and installation of Geofabric on the Bauxite stockpile to be located at the Southern end of the site.	<p>Capital expenditure approval has been obtained for purchase and installation of Geofabric on the Bauxite stockpile.</p> <p>In summary:</p> <ul style="list-style-type: none"> • Relocated Bauxite Stockpile applied with environmental friendly dust suppression (green) • Reduced vehicle movements and dust emissions as stockpile closer to materials handling system <div data-bbox="1384 571 2056 805" data-label="Image"> </div> <ul style="list-style-type: none"> • A heavy duty shade cloth material to be used for the stockpile cover –(example photo below) <div data-bbox="1541 916 1883 1177" data-label="Image"> </div> <ul style="list-style-type: none"> • Stockpile to be covered with six panels of heavy duty shade cloth (15 m x 65 m each) to provide flexibility and safety in covering and uncovering the stockpile • Covers will be applied using a combination of lifting equipment and manual labour • Covers will be appropriately anchored

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	10	By 27/09/2019, ABC will obtain capital expenditure for purchase and installation of Geo fabric on the limestone stockpile on the shell block.	<p>ABC has obtained capital expenditure approval for the purchase and installation of geo fabric on the limestone stockpile on the shell block.</p> <p>It is envisaged that the stockpile will have adequate non-working surfaces to complete the installation of Geo fabric on 11,500 m² of inactive stockpile areas by 13/03/2020.</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	20	By 29/08/2019, ABC will complete an engineering design to enable capital approval for selection and installation of a suitable dust collector.	<p>ABC has developed an engineering scope of work to reduce dust emissions at the clinker transfer onto Cement Mill 6 (CM6) Clinker Feed conveyor (CF6)</p> <p>Engineering analysis determined the existing dust collector is correctly sized, but dust capture and handling needs improvement.</p> <p>The scope of work includes;</p> <ul style="list-style-type: none"> • Redesigned ductwork to provide effective capture of dust at the clinker transfer point • Improved dust collector discharge arrangements <p>These improvements will reduce dust loadings within CM6 building and will lead to lower overall fugitive dust emissions from the building.</p> <p>By 28/11/2019, ABC will obtain the capital expenditure necessary to reduce dust emissions at the CM6 CF6 Clinker transfer point.</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
8	Fugitive Dust - Dust Collectors	CM1 Dust Collector - redirect outlet	26	By 30/07/2019, ABC will complete an engineering design to enable capital approval for changing the CM1 Dust collector outlet to a vertical discharge.	<p>ABC has developed an engineering scope of work to change the CM1 Dust collector out let to a vertical discharge.</p> <p>The design includes:</p> <ul style="list-style-type: none"> • Installing new ducting within the existing mill room building with a smooth radius turn to minimise turbulence • The existing duct attenuator will be overhauled to further mitigate noise emissions
8	Fugitive Dust - Dust Collectors	CM1 Dust Collector - redirect outlet	27	By 31/07/2019, ABC will submit an application to the relevant regulatory authority for redirection of the CM1 Dust Collector outlet.	<p>As the scope of work does not affect the structure or use of the building and considering all the work is being completed internally, ABCL believes building approval is not required. This is currently being confirmed with Port Adelaide Enfield Council.</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
9	Fugitive Dust – Sealing exposed unsealed surfaces	Seal area – north of reclaimer shed	30	By the 25/06/2019, ABC will complete the engineering design to enable capital approval for sealing 1200m ² of unsealed surface area on the northern side of the reclaimer shed.	<p>ABC has developed an engineering scope of work and obtained estimated project costs. In summary:</p> <ul style="list-style-type: none"> • 1700 m² of unsealed surface is to be bituminised • Sealed surface to blend in with existing paved areas • Additional car parking spaces to be provided • Surface drainage into existing arrangements • Draft plan below  <ul style="list-style-type: none"> • Site Location below  <p>A business case and a capital expenditure proposal will be submitted to obtain capital funding by the 24/09/2019.</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
9	Fugitive Dust – Sealing exposed unsealed surfaces	Seal area – north of reclaimer shed	31	By 24/09/2019, ABC will obtain capital expenditure for sealing 1200m ² of unsealed surfaces on the northern side of the reclaimer shed with bitumen	<p>ABC has obtained capital expenditure approval to seal 1200m² of unsealed surfaces on the northern side of the reclaimer shed with bitumen.</p> <p>Implementation of this project has now commenced to enable the area to be sealed by 26/11/2019.</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
14	Noise	CM1/CM7 Clinker Gantry Dust Collector Fans	46	By 18/7/2019, ABC will complete an engineering study to enable approval of capital expenditure to reduce noise emissions from CM1/CM7 Clinker Gantry Dust Collection Fans	<p>ABC has developed an engineering scope of work and obtained estimated project costs.</p> <p>In summary:</p> <ul style="list-style-type: none"> • ABC will install duct noise attenuators on the CM1/CM7 Clinker Gantry Dust Collection Fans <p>An expenditure proposal will be submitted to obtain funding for implementation by the 17/10/2019.</p>