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## QUARTERLY STACK PARTICULATE REPORT FOR BIRKENHEAD WORKS

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**COMPLIANCE DATE: 31/12/19 – Quarter 4, 2019**  
**EPA Licence 1126: Stack Particulate Management Plan (U-749)**

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

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

**Date of Submission: 31 January 2020**

**Version Number: 1**



Report Submitted by: Environmental Engineer

*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

<b>Term</b>	<b>Definition</b>
$\mu\text{g}/\text{m}^3$	micrograms per cubic metre
$\text{mg}/\text{m}^3$	milligrams per cubic metre
m	metre
$\text{m}^3$	cubic metres
$\text{m}^3/\text{s}$	cubic metres per second
$\text{Nm}^3$	Gas volume in dry cubic metres at STP dry basis
<b>Abbreviations</b>	<b>Definition</b>
Air EPP	Environment Protection (Air Quality) Policy 2016
SA EPA	South Australian Environment Protection Authority
STP dry basis	Standard Temperature and Pressure (zero degrees Celsius and 101.3 kilo Pascals absolute)
TSP	Total Suspended Particulates
SPMP	Stack Particulate Management Plan

<p><b>Monitoring Objective</b></p>	<p>All stack particulate emissions events for the reporting quarter, where levels have exceeded the reporting thresholds:</p> <ul style="list-style-type: none"> <li>• 100 mg/Nm<sup>3</sup> (1 hour averaging period) on Kiln Stack 4A</li> <li>• 60 mg/Nm<sup>3</sup> (1 hour averaging period) on Precalciner Stack 4B</li> </ul> <p>Particulate Emissions will be reported in a table format providing the following details:</p> <ul style="list-style-type: none"> <li>• date, time and duration</li> <li>• the measured particulate concentration mg/Nm<sup>3</sup> (STP-dry)</li> <li>• immediate actions taken to reduce particulate emissions</li> <li>• cause and corrective actions taken to prevent future reoccurrence</li> </ul>
<p><b>Monitoring Plan</b></p>	<p>This monitoring report has been prepared in compliance with Stack Particulate Management Plan, approved 18 June 2018, by SA EPA.</p> <p>The Plan is available on the ABC Birkenhead Community Website:  <a href="http://www.birkenheadcommunity.com.au">http://www.birkenheadcommunity.com.au</a></p>

## One Hour Stack Particulate Reporting Events

**4A Stack**  
 1 hr >  
 100mg/Nm<sup>3</sup>  
 3  
 Rolling 1hr  
 average

No 1-hr reporting events

**4B Stack**  
 1 hr >  
 60mg/Nm<sup>3</sup>  
 Rolling 1hr  
 average

Date	Time start	Time finish	Duration (min)	Magnitude mg/Nm <sup>3</sup>	Cause	Immediate Actions Taken	Actions Taken to Prevent a Reoccurrence
9/10/2019	19:10	19:10	1	77.8	4B Mill off for extended period for maintenance which resulted in higher than desirable temperatures into the electrostatic precipitator resulting in elevated emissions	Maximised conditioning tower cooling sprays and reduced process feed rates to reduce temperatures until 4B Mill could be restarted	Operate to Process control Standards
18/10/2019	10:02	10:03	1	66.6	4B Mill off for extended period which resulted in higher than desirable temperatures into the electrostatic precipitator resulting in elevated emissions	Restarted 4B mill to reduce emissions	Operate to Process control Standards
30/10/2019	16:26	16:50	24	62.6	VVF drive fault occurred on 4B Raw feed conveyor during 4B mill start up sequence, preventing 4B conditioning tower sprays to come on.	4B Mill shutdown. Drive fault on raw feed conveyor rectified	This issue has not occurred before Maintain existing maintenance and inspection program