



**Adelaide Brighton Cement Ltd**

an **ADBRI** company

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## QUARTERLY STACK PARTICULATE REPORT FOR BIRKENHEAD WORKS

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**COMPLIANCE DATE: 31/07/22 – Quarter 2, 2022**  
**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 July 2022**

**Version Number: 1**



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

## 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
ESP	Electrostatic Precipitator
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 Pre calciner 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="https://adelaidebrightoncommunity.com.au/">https://adelaidebrightoncommunity.com.au/</a></p>

## One Hour Stack Particulate Reporting Events

**4A Stack**  
 1 hr >  
 100mg/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
2/05/2022	19:38	20:02	24	105.3	4A ESP F extractor screw jammed - hopper above screw being cleaned by vacuum truck to prevent entrainment of dust in process gas to 4A stack. Vacuum truck operators left access port open after cleaning 4A ESP F extractor screw hopper introducing a flow disturbance in ESP affecting ESP performance.	Access port closed and vacuum truck operators advised.	Extractor screw repaired.
19/05/2022	11:46	12:44	58	149.9	Calciner tripped due to high exit pressure, resulting in blockage.	Kiln shut down. Clearing blockages resulted in increased dust emission.	Blockage cleared

**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
03/04/2022	4:33	5:35	62	65.5	Calciner shutdown at 2:30 due to low flow from blending silo	Calciner shutdown resulted in slight increase in dust emissions	This is a rare event.
19/05/2022	17:23	18:04	41	72.4	Calciner tripped due to high exit pressure, resulting in blockages.	Kiln shut down. Clearing blockages resulted in increased dust emission.	Blockage cleared