



Adelaide Brighton Cement Ltd

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Stack Particulate Management Plan Annual Stack Particulate Report

Period: October 2020 – September 2021

Licensed site: Adelaide Brighton Cement, Angaston Works

845, Stockwell Road, Angaston, SA 5353

EPA Licence number: 35

Date of Submission: 29 October 2021

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

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

<p>Monitoring Objective</p>	<p>All stack particulate emissions events for the reporting period, where levels have exceeded the reporting thresholds:</p> <ul style="list-style-type: none"> • 100 mg/Nm³ (1-hour averaging period) on Kiln Stack 1 • 100 mg/Nm³ (1-hour averaging period) on Kiln Stack 2 • 25 mg/Nm³ (1-hour averaging period) on Kiln Stack 3 <p>An annual report will be prepared and submitted by the last day of October of each year that provides an analysis of the 1-hour particulate reporting events including:</p> <ul style="list-style-type: none"> • A table detailing the number and cause of reporting events for Kiln Stacks 1,2 and 3 <ul style="list-style-type: none"> • date, time and duration • the measured particulate concentration mg/Nm³ (STP-dry) • immediate actions taken to reduce particulate emissions • cause and corrective actions taken to prevent future reoccurrence • A trend analysis of magnitude and duration of 1-hour notifications on a time series graph for each stack for the current year • A trend analysis of community complaints by type against 1-hour reporting events by cause on a time series graph for each stack • A table comparing the number of 1-hour reporting events by cause for the current and previous 1, 3 and 5 years. To provide consistency in data management, the new licence reporting requirements will be phased in as follows; <table border="1" data-bbox="480 1043 1385 1290"> <thead> <tr> <th>Reporting year</th> <th>Comparison with previous reporting years</th> </tr> </thead> <tbody> <tr> <td>2019 - 2020 data</td> <td>No comparison</td> </tr> <tr> <td>2020 - 2021 data</td> <td>1 year comparison</td> </tr> <tr> <td>2021 - 2022 data</td> <td>1 and 3 year comparison</td> </tr> <tr> <td>2022 - 2023 data</td> <td>1 and 3 year comparison</td> </tr> <tr> <td>2023 - 2024 data</td> <td>1, 3 and 5 year comparison</td> </tr> </tbody> </table> <ul style="list-style-type: none"> • Identification of opportunities for improvement to decrease the frequency, duration and magnitude of 1-hour reporting events 	Reporting year	Comparison with previous reporting years	2019 - 2020 data	No comparison	2020 - 2021 data	1 year comparison	2021 - 2022 data	1 and 3 year comparison	2022 - 2023 data	1 and 3 year comparison	2023 - 2024 data	1, 3 and 5 year comparison
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<p>Monitoring Plan</p>	<p>This monitoring report has been prepared in line with the Stack Particulate Management Plan approved on 25 October 2019 by the South Australian EPA.</p> <p>The Plan is available on the ABC Angaston Community Website: https://www.angastoncommunity.com.au</p>												

1-hr Reporting Events	<p>Summary of 1-hr Reporting events 1/10/2020 to 30/9/2021</p> <p>Kiln 1 Care and maintenance mode for the full reporting period</p> <p>Kiln 2 No 1-hr reporting events (particulate emissions exceeding 100 mg/Nm³)</p> <p>Kiln 3 No 1-hr reporting events (particulate emissions exceeding 25 mg/Nm³)</p>												
Trend analysis 1-hr reporting events	<p>Trend analysis of magnitude and duration of 1- hr reporting events 1/10/2020 – 1/10/2021</p> <p>There are no 1-hr reporting events for this reporting period</p>												
Trend analysis Community Complaints	<p>Trend analysis of community complaints by type against 1-hr reporting events</p> <p>There were no community complaints related to stack emissions or dust during the reporting period</p>												
Opportunities for improvement	<p>Identification of opportunities to prevent or prevent the frequency, duration and magnitude of 1-hr reporting events in this reporting period</p> <p>The table below details the opportunities to reduce the frequency, duration and magnitude of 1-hr reporting events, that have been identified.</p> <table border="1" data-bbox="370 1182 1433 1760"> <thead> <tr> <th data-bbox="370 1182 512 1335">Stack</th> <th data-bbox="512 1182 962 1335">Improvement Opportunities Identified and Implemented</th> <th data-bbox="962 1182 1433 1335">Improvement Opportunities to be Implemented</th> </tr> </thead> <tbody> <tr> <td data-bbox="370 1335 512 1424">Kiln-1</td> <td data-bbox="512 1335 962 1424">None (not running)</td> <td data-bbox="962 1335 1433 1424">None (not running)</td> </tr> <tr> <td data-bbox="370 1424 512 1514">Kiln-2</td> <td data-bbox="512 1424 962 1514">None</td> <td data-bbox="962 1424 1433 1514">None</td> </tr> <tr> <td data-bbox="370 1514 512 1760">Kiln-3</td> <td data-bbox="512 1514 962 1760"> In the 2020 annual report it was identified that all filters in Kiln 3 bag house needed to be replaced during the next major shutdown. All 468 filter bags in Kiln-3 bag house were replaced during the June 2021 shutdown </td> <td data-bbox="962 1514 1433 1760">None</td> </tr> </tbody> </table>	Stack	Improvement Opportunities Identified and Implemented	Improvement Opportunities to be Implemented	Kiln-1	None (not running)	None (not running)	Kiln-2	None	None	Kiln-3	In the 2020 annual report it was identified that all filters in Kiln 3 bag house needed to be replaced during the next major shutdown. All 468 filter bags in Kiln-3 bag house were replaced during the June 2021 shutdown	None
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<p>Plan/TARP Review</p>	<p>Stack Particulate Management Plan / TARP Review:</p> <p>The Stack Particulate Management Plan (SPMP) incorporates the use of stack particulate emissions Trigger Action Reporting Plans (TARP's) since Oct 2019.</p> <p>The current Trigger Action Reporting Plans have been effective in improving operation response times to process conditions that have the potential for stack emissions to reach 1-hr reporting levels.</p> <p>There have been no identified improvements required in the existing TARP's.</p>
<p>Summary:</p>	<p>The Stack Particulate Management Plan (SPMP) incorporates the use of stack particulate emissions Trigger Action Reporting Plans (TARP's) since Oct 2019.</p> <p>The current Trigger Action Reporting Plans have been effective in improving operation response times to process conditions that have the potential for stack emissions to reach 1-hr reporting levels.</p> <p>It is recommended that the performance of the existing TARP's be monitored over the next 12 months.</p>