



Adelaide Brighton Cement Ltd

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ANNUAL DUST MANAGEMENT REPORT FOR ANGASTON WORKS

2022 Annual Report and TARP Review

Compliance date: 30/11/2022

EPA Licence: 35

Licensed site: Adelaide Brighton Cement, Angaston Works

345 Stockwell Road, Angaston, SA 5353

Date of Submission: 30 November 2022

Version Number: 1



Glossary

Term	Definition
$\mu\text{g}/\text{m}^3$	micrograms per cubic metre
mg/m^3	milligrams per cubic metre
μm	micrometre
$^{\circ}\text{C}$	degrees Celsius
m	metre
m^3	cubic metre
m^3/s	cubic metres per second
Nomenclature	Definition
PM ₁₀	Particulate matter with a diameter less than 10 micrometres
PM _{2.5}	Particulate matter with a diameter less than 2.5 micrometres
24 hour average	Calendar day (midnight to midnight)
Abbreviations	Definition
ABC	Adelaide Brighton Cement
Air EPP	South Australian Environment Protection (Air Quality) Policy 2016
DMP	Dust Management Plan
CKD	Cement Kiln Dust
EPA	Environment Protection Authority
SPMP	Stack Particulate Management Plan
TARP	Trigger Action Response Plan

Purpose	The purpose of the Dust Management Plan (DMP) is to minimise dust emissions from on-site activities.
Dust Management Plan	<p>This report has been prepared in compliance with the Dust Management Plan, approved 25 October 2019, by SA EPA.</p> <p>The plan is available on the ABC Angaston Community website: https:// <u>https://www.angastoncommunity.com.au</u></p>
Background Information	<p>The DMP contains a Trigger Action Response Plan (TARP) to proactively manage fugitive dust emissions.</p> <p>The TARP uses two levels of trigger:</p> <p>The following two levels of trigger/response have been defined:</p> <ul style="list-style-type: none"> • Level 1 trigger (investigate) – potential for dust emissions • Level 2 trigger (escalate) – potential for dust emissions to be higher than normal and action may be required <p>Triggers and responses have been defined for:</p> <ul style="list-style-type: none"> • Visual observations • Meteorological parameters <p>The TARP has been designed to allow proactive management of fugitive dust. Therefore, a trigger, does not indicate the presence of an off-site dust impact.</p> <p>Trigger levels and responses are documented in the EPA Approved DMP.</p>

Reporting Objective	<p>To review the effectiveness of the Trigger Action Response Plan (TARP) contained within the approved Dust Management Plan (DMP) and includes;</p> <ul style="list-style-type: none"> • A table detailing <ul style="list-style-type: none"> • date, time and trigger exceeded • action and response strategies implemented • A review of all trigger values • A review of the effectiveness of all action and response strategies and adverse trends • A review and analysis of community complaints with the exceedance of trigger values • Opportunities for improvement in dust management 										
Review of Triggers, Community complaints and Effectiveness of the TARP	<p>Summary of TARP alerts and actions for the reporting period is attached (refer to appendix 1):</p> <ul style="list-style-type: none"> • A total of 92 Level 1 Meteorological trigger alerts were raised for the reporting year • A total of 70 Level 2 Meteorological trigger alerts were raised for the reporting year • 0 visual Triggers was raised for the reporting year <p>Complaints:</p> <ul style="list-style-type: none"> • There was one community dust complaint for the reporting period – details captured in table below. <table border="1" data-bbox="383 831 2054 1366"> <thead> <tr> <th data-bbox="383 831 562 935">Date and Time</th> <th data-bbox="562 831 804 935">Location</th> <th data-bbox="804 831 1158 935">Description</th> <th data-bbox="1158 831 2054 935">Action Taken</th> </tr> </thead> <tbody> <tr> <td data-bbox="383 935 562 1366">1/02/2022 4:20 pm</td> <td data-bbox="562 935 804 1366">Hauge Crescent Angaston</td> <td data-bbox="804 935 1158 1366">White dust spots on car</td> <td data-bbox="1158 935 2054 1366"> Dust analysed and found not to contain cementitious material. Major ground works being undertaken at nearby Angaston oval close to the complainant's location, may have been a source for this dust complaint. Wind direction at time of complaint was from the South – (not blowing from the plant to the complainant's location) A level 2 trigger, forecasting winds greater than 8m/s was triggered at 6.30 pm on the 1/02/2022, with observed wind directions from the South South East. No site activity in stockpile areas and no carting of materials were scheduled at this time. </td> </tr> </tbody> </table>			Date and Time	Location	Description	Action Taken	1/02/2022 4:20 pm	Hauge Crescent Angaston	White dust spots on car	Dust analysed and found not to contain cementitious material. Major ground works being undertaken at nearby Angaston oval close to the complainant's location, may have been a source for this dust complaint. Wind direction at time of complaint was from the South – (not blowing from the plant to the complainant's location) A level 2 trigger, forecasting winds greater than 8m/s was triggered at 6.30 pm on the 1/02/2022, with observed wind directions from the South South East. No site activity in stockpile areas and no carting of materials were scheduled at this time.
Date and Time	Location	Description	Action Taken								
1/02/2022 4:20 pm	Hauge Crescent Angaston	White dust spots on car	Dust analysed and found not to contain cementitious material. Major ground works being undertaken at nearby Angaston oval close to the complainant's location, may have been a source for this dust complaint. Wind direction at time of complaint was from the South – (not blowing from the plant to the complainant's location) A level 2 trigger, forecasting winds greater than 8m/s was triggered at 6.30 pm on the 1/02/2022, with observed wind directions from the South South East. No site activity in stockpile areas and no carting of materials were scheduled at this time.								

Effectiveness:

- This report confirms the current TARP is assisting in managing dust control measures to minimise offsite dust from the site

Opportunities for improvement:

- No opportunities have been identified

**Appendix 1
Trigger /
Response
Summary**

Date Time	Level- 1 Trigger wind speed >=6m/s and 90=< wind direction <=180	Level-2 Trigger wind speed >=8m/s	Response
02/11/2021 12:30		Yes	Assess potential for shifting operations to more favourable conditions. Carting done earlier before high wind speed forecast
03/11/2021 18:30	Yes		Reduce planned activity level. No external carting done this time
03/11/2021 19:30	Yes		Reduce planned activity level. No external carting done
04/11/2021 22:30	Yes		Assess potential for shifting operations to more favourable conditions. Carting schedule earlier before forecasted high winds
06/11/2021 15:30		Yes	Stop all activity in stockpile areas. No external carting done during this time
10/11/2021 6:30	Yes		Reduce planned activity level. No carting done today
10/11/2021 18:30	Yes		Reduce planned activity level. No external carting scheduled for today
11/11/2021 6:30		Yes	Stop all activity in stockpile areas. No external carting done
11/11/2021 17:30	Yes		Reduce planned activity level. No carting plan for today
14/11/2021 18:30		Yes	Stop all activity in stockpile areas. No carting to be done
18/11/2021 18:30		Yes	Assess potential for shifting operations to more favourable conditions. Ongoing clay carting when wind condition is better

18/11/2021 18:30		Yes	Visual observations of site every 3 hours. Advise clay carting to stop if wind is getting strong
21/11/2021 5:30	Yes		Reduce planned activity level. No planned carting on these times
21/11/2021 8:30	Yes		Assess potential for shifting operations to more favourable conditions. Reject carting done when wind condition is better
25/11/2021 2:30	Yes		Reduce planned activity level. No external carting done at this time
25/11/2021 18:30	Yes		Reduce planned activity level. No external carting done at this time
26/11/2021 6:30	Yes		Reduce planned activity level. No carting activities planned for the shift
26/11/2021 18:30	Yes		Assess potential for shifting operations to more favourable conditions. Carting of dust will be done when weather condition is better
26/11/2021 18:30	Yes		Visual observations of site every 3 hours. Continue monitoring wind speed
27/11/2021 6:30	Yes		Assess potential for shifting operations to more favourable conditions. Carting rejects done when wind conditions are better
06/12/2021 17:30		Yes	Stop all activity in stockpile areas. No carting activities scheduled on these times
07/12/2021 20:30	Yes		Assess potential for shifting operations to more favourable conditions. Carting of half burn done earlier before high winds
08/12/2021 18:30	Yes		Assess potential for shifting operations to more favourable conditions. Carting activities will be done before these times
08/12/2021 20:30	Yes		Reduce planned activity level. No carting done
09/12/2021 18:30	Yes		Reduce planned activity level. No carting to be done
10/12/2021 4:30	Yes		Assess potential for shifting operations to more favourable conditions. No carting activities scheduled on these times. Carting of ckd done when weather was better
10/12/2021 8:30	Yes		Reduce planned activity level. Carting of ckd done when weather was better

19/12/2021 17:30		Yes	Stop all activity in stockpile areas. No carting activity done during high winds
23/12/2021 2:30	Yes		Reduce planned activity level. No open carting done on this period
24/12/2021 5:30	Yes		Reduce planned activity level. No scheduled carting activities.
25/12/2021 18:30	Yes		Reduce planned activity level. No carting done. Assets were off.
26/12/2021 6:30		Yes	Stop all activity in stockpile areas. No carting activities done. Plant assets were off.
26/12/2021 18:30	Yes		Reduce planned activity level. Plant assets were off. No carting activities done
27/12/2021 6:30	Yes		Reduce planned activity level. No carting done. Plant is off.
27/12/2021 18:30	Yes		Reduce planned activity level. Plant assets were off. No carting activities done
27/12/2021 19:30	Yes		Reduce planned activity level. No carting done. Plant assets were off
28/12/2021 10:30	Yes		Reduce planned activity level. No carting done. All assets were off
29/12/2021 0:30	Yes		Reduce planned activity level. No carting activities. All assets were Off
29/12/2021 20:30	Yes		Reduce planned activity level. No external carting done during this time
04/01/2022 18:30	Yes		Reduce planned activity level. No external carting done
06/01/2022 18:30		Yes	Stop all activity in stockpile areas. No carting activity scheduled during these periods
11/01/2022 4:30	Yes		Reduce planned activity level. No carting planned on this day
12/01/2022 8:30		Yes	Alert shift employees that dust potential is elevated. Monitor actual wind condition & manage carting activities
12/01/2022 8:30		Yes	Assess potential for shifting operations to more favourable conditions. Carting of lime rejects done on favourable condition

18/01/2022 6:30	Yes		Reduce planned activity level. No carting activities scheduled on these times
18/01/2022 18:30	Yes		Reduce planned activity level. No carting activities scheduled on these times.
19/01/2022 6:30		Yes	Stop all activity in stockpile areas. No carting activities scheduled on these times
19/01/2022 10:30	Yes		Reduce planned activity level. No carting activities scheduled on these times
20/01/2022 18:30		Yes	Stop all activity in stockpile areas. No carting activities scheduled on these times
21/01/2022 6:30		Yes	Stop all activity in stockpile areas. No carting activities scheduled on these times
21/01/2022 17:30		Yes	Stop all activity in stockpile areas. Carting activities will be done before these times
22/01/2022 16:30		Yes	Stop all activity in stockpile areas. No carting activities scheduled on the day
29/01/2022 18:30	Yes		Reduce planned activity level. No carting activities done on these times. Plant running well
30/01/2022 5:30	Yes		Reduce planned activity level. No carting activities scheduled on these times
30/01/2022 19:30	Yes		Reduce planned activity level. No carting activities scheduled on these times. Plant running stable operation.
01/02/2022 18:30		Yes	Stop all activity in stockpile areas. No carting scheduled for this period
02/02/2022 0:30	Yes		Reduce planned activity level. No carting activities scheduled on these times
02/02/2022 18:30	Yes		Reduce planned activity level. No planned carting activity for these times
02/02/2022 19:30	Yes		Assess potential for shifting operations to more favourable conditions. Carting of Kiln-3 rejects done before this time
03/02/2022 18:30	Yes		Reduce planned activity level. No carting schedule on these times
04/02/2022 4:30	Yes		Reduce planned activity level. No carting activities scheduled on these times

04/02/2022 10:30	Yes		Reduce planned activity level. No carting activities scheduled on these times
05/02/2022 4:30	Yes		Assess potential for shifting operations to more favourable conditions. K3 rejects carting done when wind condition is better
05/02/2022 21:30	Yes		Reduce planned activity level. Stopped K3 rejects by these periods
06/02/2022 17:30		Yes	Assess potential for shifting operations to more favourable conditions. K2 LKD carting done when wind condition is better
07/02/2022 13:30		Yes	Assess potential for shifting operations to more favourable conditions. K2 rejects carting done before these periods. No carting done on these times
10/02/2022 19:30	Yes		Assess potential for shifting operations to more favourable conditions. K3 rejects carting done when wind conditions are favourable
11/02/2022 18:30	Yes		Assess potential for shifting operations to more favourable conditions. Carting of rejects to be done when wind conditions are better
11/02/2022 19:30	Yes		Assess potential for shifting operations to more favourable conditions. Shifted carting of K3 rejects when weather condition is better
14/02/2022 18:30	Yes		Reduce planned activity level. No carting activities scheduled on this period
19/02/2022 6:30	Yes		Assess potential for shifting operations to more favourable conditions. Carting shifted when weather conditions are better
22/02/2022 6:30	Yes		Assess potential for shifting operations to more favourable conditions. Carting of BL clinker to BH shifted to better wind conditions
22/02/2022 7:30	Yes		Assess potential for shifting operations to more favourable conditions. BL clinker transfer done when wind conditions are better
22/02/2022 22:30	Yes		Assess potential for shifting operations to more favourable conditions.
22/02/2022 22:30	Yes		Assess potential for shifting operations to more favourable conditions. BL clinker transfer done when wind conditions are better
24/02/2022 2:30	Yes		Reduce planned activity level. No BL clinker transfer or any carting on these times
24/02/2022 18:30	Yes		Reduce planned activity level. No more carting on these periods

25/02/2022 1:30	Yes		Reduce planned activity level. No carting done on night shift
25/02/2022 17:30	Yes		Reduce planned activity level. No more carting on this time
28/02/2022 18:30	Yes		Reduce planned activity level. Carting activities all done on these times
28/02/2022 19:30	Yes		Reduce planned activity level. No carting activities scheduled on these times
03/03/2022 7:30	Yes		Assess potential for shifting operations to more favourable conditions. Shift carting when wind conditions are better
06/03/2022 10:30	Yes		Reduce planned activity level. No carting activities scheduled on these times
07/03/2022 18:30	Yes		Reduce planned activity level. No carting activities scheduled on these times
08/03/2022 4:30	Yes		Reduce planned activity level. No carting activities on these times
08/03/2022 18:30	Yes		Reduce planned activity level. No carting activities scheduled on these times
08/03/2022 20:30	Yes		Reduce planned activity level. No carting activities scheduled on these times
09/03/2022 18:30	Yes		Assess potential for shifting operations to more favourable conditions. Carting of BL clinker will be done on Day shift
09/03/2022 18:30	Yes		Reduce planned activity level. No carting activities scheduled on these times
10/03/2022 6:30	Yes		Assess potential for shifting operations to more favourable conditions. BL carting done after the high winds
10/03/2022 9:30	Yes		Assess potential for shifting operations to more favourable conditions. BL carting done on better wind conditions
19/03/2022 0:30	Yes		Reduce planned activity level. No carting activities scheduled on these times
30/03/2022 18:30	Yes		Reduce planned activity level. No planned carting on these times
31/03/2022 6:30	Yes		Assess potential for shifting operations to more favourable conditions. Shifting clay carting activities when wind conditions are better.

31/03/2022 18:30	Yes		Reduce planned activity level. No more carting activities scheduled on these times
01/04/2022 6:30		Yes	Stop all activity in stockpile areas. No carting activities on these times
01/04/2022 18:30	Yes		Assess potential for shifting operations to more favourable conditions. Shift carting of clay on better wind conditions
01/04/2022 18:30	Yes		Reduce planned activity level. No more carting on night shift
02/04/2022 4:30	Yes		Assess potential for shifting operations to more favourable conditions. No more carting activities scheduled on these times
02/04/2022 11:30	Yes		Assess potential for shifting operations to more favourable conditions. No more carting activities scheduled on these times
07/04/2022 3:30	Yes		Reduce planned activity level. No carting activities scheduled on these times
12/04/2022 6:30	Yes		Assess potential for shifting operations to more favourable conditions. Move ckd carting when wind condition is better
12/04/2022 7:30	Yes		Assess potential for shifting operations to more favourable conditions. Shift carting of clay on better wind conditions
23/04/2022 16:30	Yes		Assess potential for shifting operations to more favourable conditions. Halted any carting until wind speed below high levels
24/04/2022 6:30	Yes		Reduce planned activity level. No external carting done
24/04/2022 13:30		Yes	Stop all activity in stockpile areas. No external carting done this day
26/04/2022 13:30		Yes	Assess potential for shifting operations to more favourable conditions. Halted any carting by these times
14/05/2022 11:30		Yes	Stop all activity in stockpile areas. No carting activities scheduled on these times
15/05/2022 16:30		Yes	Assess potential for shifting operations to more favourable conditions. Carting activities will be done before these times
20/05/2022 11:30	Yes		Reduce planned activity level. No carting activities scheduled on the day

21/05/2022 11:30	Yes		Reduce planned activity level. No carting activities on the day
30/05/2022 6:30		Yes	Stop all activity in stockpile areas. No carting activities scheduled on these times
30/05/2022 16:30		Yes	Stop all activity in stockpile areas. No carting activities scheduled on these times
31/05/2022 6:30		Yes	Stop all activity in stockpile areas. No carting activities scheduled on these times
31/05/2022 17:30		Yes	Stop all activity in stockpile areas. No carting activities scheduled on these times.
04/06/2022 17:30		Yes	Stop all activity in stockpile areas. No carting activities scheduled on these times
05/06/2022 4:30		Yes	Stop all activity in stockpile areas. No carting activities scheduled on these times
05/06/2022 16:30		Yes	Assess potential for shifting operations to more favourable conditions. Shift carting of rejects when wind conditions are better
06/06/2022 14:30		Yes	Assess potential for shifting operations to more favourable conditions. Carting activities be done before these times
15/06/2022 16:30		Yes	Stop all activity in stockpile areas. No outdoor carting activities scheduled on these times
23/06/2022 13:30		Yes	Stop all activity in stockpile areas. No more carting activities on these times
04/07/2022 14:30	Yes		Reduce planned activity level. No carting activities scheduled on these times
16/07/2022 17:30		Yes	Stop all activity in stockpile areas. No carting activities scheduled on these times
17/07/2022 3:30		Yes	Stop all activity in stockpile areas. No carting activities scheduled on these times
17/07/2022 15:30		Yes	Stop all activity in stockpile areas. No carting activities scheduled on these times
25/07/2022 15:30		Yes	Stop all activity in stockpile areas. No carting done on the weekend.
02/08/2022 18:30		Yes	Stop all activity in stockpile areas. No carting activities scheduled on these times

03/08/2022 1:30		Yes	Assess potential for shifting operations to more favourable conditions. Carting of K2 rejects done when wind was better
03/08/2022 1:30		Yes	Stop all activity in stockpile areas. K2 rejects carting completed before high winds
03/08/2022 17:30		Yes	Assess potential for shifting operations to more favourable conditions. Shifted carting when wind was better
04/08/2022 18:30		Yes	Stop all activity in stockpile areas. No open carting activities scheduled on these times
05/08/2022 5:30		Yes	Stop all activity in stockpile areas. No carting activities scheduled on these times
05/08/2022 18:30		Yes	Stop all activity in stockpile areas. No carting activities scheduled on this day
05/08/2022 22:30		Yes	Stop all activity in stockpile areas. No carting activities scheduled on these times
06/08/2022 14:30		Yes	Stop all activity in stockpile areas. No carting activities scheduled on these times
10/08/2022 14:30		Yes	Assess potential for shifting operations to more favourable conditions. Carting activities start/stop when wind speed is better
11/08/2022 15:30		Yes	Assess potential for shifting operations to more favourable conditions. Clinker carting shifted when weather is better
12/08/2022 1:30		Yes	Stop all activity in stockpile areas. No carting during these hours
22/08/2022 11:30		Yes	Assess potential for shifting operations to more favourable conditions. Carting half burn to quarry done before high wind triggers
29/08/2022 16:30		Yes	Assess potential for shifting operations to more favourable conditions. Carting of ckd done earlier before high wind periods
03/09/2022 12:30	Yes		Reduce planned activity level. No carting activities on this day
09/09/2022 13:30		Yes	Assess potential for shifting operations to more favourable conditions. BL carting done when weather conditions are better
16/09/2022 4:30		Yes	Stop all activity in stockpile areas. Carting activities stopped on these times

16/09/2022 17:30		Yes	Assess potential for shifting operations to more favourable conditions. BL carting done when condition was better
16/09/2022 17:30		Yes	Assess potential for shifting operations to more favourable conditions. CKD transfer done when weather was favourable
17/09/2022 6:30		Yes	Assess potential for shifting operations to more favourable conditions. Shifted BL carting when wind was better
17/09/2022 18:30		Yes	Assess potential for shifting operations to more favourable conditions. Shift BL carting when wind conditions are better
17/09/2022 18:30		Yes	Stop all activity in stockpile areas. No more BL carting past 15:00 hrs
17/09/2022 23:30		Yes	Stop all activity in stockpile areas. No BL carting activities scheduled on these times
18/09/2022 15:30		Yes	Stop all activity in stockpile areas. No carting activities scheduled on these times
20/09/2022 14:30		Yes	Stop all activity in stockpile areas. No carting activities scheduled on this day
04/10/2022 6:30	Yes		Reduce planned activity level. No carting activities scheduled on these times
04/10/2022 17:30		Yes	Stop all activity in stockpile areas. No carting activities scheduled on these times
07/10/2022 17:30		Yes	Stop all activity in stockpile areas. No carting activities will be scheduled on these times
19/10/2022 17:30	Yes		Reduce planned activity level. No schedules carting activities
20/10/2022 6:30	Yes		Reduce planned activity level. No carting activities schedule today
20/10/2022 9:30	Yes		Reduce planned activity level. No carting on these times
27/10/2022 16:30		Yes	Stop all activity in stockpile areas. No carting activities. Both kilns are Off
28/10/2022 13:30		Yes	Stop all activity in stockpile areas. No carting activities scheduled. Both kilns are Off
30/10/2022 17:30		Yes	Stop all activity in stockpile areas. No carting activities scheduled on these times

	31/10/2022 0:30		Yes	Stop all activity in stockpile areas. No carting activities scheduled on the day
	31/10/2022 16:30		Yes	Stop all activity in stockpile areas. No carting activities scheduled on these times