Boral Cement Maldon, NSW

Environmental Protection Licence No. 212

Explanation of units of measure:
mg/m^3 = milligrams per cubic metre
g/m2/month = grams per square metre per month
$\mu g/m^3$ = micrograms per cubic metre
mg/L = milligrams per litre
NTU = Nephelometric Turbidity Unit

Record updated on 6th December 2024

Maldon Cement Plant's webpage became live in July 2014. The monitoring data has been uploaded to the internet for public use since that time.

1. Ambient air/dust monitoring

1.1 Dust Deposition Gauges

The measurement is expressed as Total Insoluble Matter (g/m^{2}·month) (grams/square metre/month).

This test measures the levels of the coarse dust (generated mostly from unsealed roads, raw material handling, open stockpiles, etc.). It is a measure of dust ***nuisance*** (dust on cars, washings, windowpanes) in the immediate vicinity of the source, as the heavy dust settles quickly and doesn't travel far. It is not an indication of potential health problems as it doesn't penetrate into the respiratory system due to the large size of dust particles.

License limit: Not specified.
The NSW State guideline of 4 g/m^2/month (gram/square metre/month) (presented as 12-month rolling average) was adopted.

	Dust Deposition Gauges (grams per square meter per month as 12-month rolling average)					
	1	**2**	**4**	**5**	**6**	**7**
Oct 2020 Report received 27/11/2020 Date Published 04/12/2020	-	2.42	3.57	3.05	2.86	2.87
Nov 2020 Report received 21/12/2020 Date Published 08/02/2021	-	2.17	3.22	2.79	2.65	2.61
Dec 2020 Report received 05/02/2021 Date Published 08/02/2021	-	2.08	3.23	2.70	2.54	2.77
Jan 2021 Report received 05/03/2021 Date Published 21/06/2021	-	2.49	3.78	3.21	3.05	2.88
Feb 2021 Report received 07/04/2021 Date Published 21/06/2021	-	2.42	3.57	3.05	2.86	2.87

	Dust Deposition Gauges (grams per square meter per month as 12-month rolling average)					
	1	2	4	5	6	7
Mar 2021 Report received 26/04/2021 Date Published 21/06/2021	-	2.17	3.22	2.79	2.65	2.61
Apr 2021 Report received 13/05/2021 Date Published 21/06/2021	-	2.08	3.23	2.70	2.54	2.77
May 2021 Report received 16/06/2021 Date Published 14/07/2021	-	2.08	3.23	2.70	2.54	2.77
June 2021 Report received 03/08/2021 Date Published 08/11/2021	-	1.35	2.27	1.55	1.67	2.06
July 2021 Report received 17/08/2021 Date Published 08/11/2021	-	1.59	2.37	1.55	1.60	1.99
August 2021 Report received 22/09/2021 Date Published 08/11/2021	-	1.58	2.45	1.57	1.54	1.90
September 2021 Report received 19/10/2021 Date Published 08/11/2021	-	1.54	2.44	1.57	1.51	1.65
October 2021 Report received 25/11/2021 Date Published 12/08/2022	-	1.53	2.66	1.69	1.44	1.64
November 2021 Report received 13/12/21 Date Published 12/08/2022	-	1.51	2.64	1.64	1.53	1.60
December 2021 Report received Date Published 12/08/2022		1.51	2.74	1.68	1.64	1.69
January 2022 Report received 14/12/2022 Date Published 12/08/2022	-	1.49	2.75	2.29	1.59	1.64
February 2022 Report received 07/04/2021 Date Published 12/08/2022	-	1.68	2.87	2.41	1.73	1.81
March 2022 Report received 26/04/2022 Date Published 12/08/2022	-	1.63	2.79	2.35	1.70	1.72
April 2022 Report received Date Published 12/08/2022	-	1.59	2.71	2.24	1.66	1.66
May 2022 Report received 01/07/2022 Date Published 12/08/2022	-	1.61	2.71	2.22	1.63	1.67
June 2022 Report received Date Published 12/08/2022		1.68	2.97	3.04	1.57	1.53
July 2022 Report received 17/08/2022 Date Published 16/09/2022		1.64	3.09	2.85	1.50	1.55
August 2022 Report received 06/09/2022 Date Published 16/09/2022		1.57	2.86	2.67	1.40	1.57
September 2022 Report received 01/11/2022		1.64	2.83	2.67	1.40	1.62

	Dust Deposition Gauges (grams per square meter per month as 12-month rolling average)					
	1	2	4	5	6	7
Date Published 14/12/2022						
October 2022 Report received 01/12/2022 Date Published 14/12/2022		1.65	2.74	2.77	1.44	1.84
November 2022 Report received 14/08/2023 Date Published 14/08/2023		1.68	2.44	2.84	1.38	2.06
December 2022 Report received 14/08/2023 Date Published 14/08/2023		1.76	2.20	2.77	1.19	1.92
January 2023 Report received 14/08/2023 Date Published 14/08/2023		1.80	2.13	2.04	1.20	1.91
February 2023 Report received 14/08/2023 Date Published 14/08/2023		1.47	1.79	1.75	0.91	1.63
March 2023 Report received 14/08/2023 Date Published 14/08/2023		1.79	2.02	1.97	1.09	1.83
April 2023 Report received 14/08/2023 Date Published 14/08/2023		1.81	2.17	2.05	1.13	1.79
May 2023 Report received 14/08/2023 Date Published 14/08/2023		1.70	2.01	2.08	1.06	1.69
June 2023 Report received 14/08/2023 Date Published 14/08/2023		1.64	2.05	2.02	1.14	1.71
July 2023 Report received 14/02/2024 Date Published 14/02/2024		1.59	1.91	2.17	1.11	1.63
August 2023 Report received 14/02/2024 Date Published 14/02/2024		1.59	2.14	2.25	1.13	1.55
September 2023 Report received 14/02/2024 Date Published 19/02/2024		1.51	2.10	2.19	1.18	1.43
October 2023 Report received 14/02/2024 Date Published 19/02/2024		1.47	2.47	2.08	1.16	1.51
November 2023 Report received 14/02/2024 Date Published 19/02/2024		1.63	2.66	2.17	1.60	1.53
December 2023 Report received 14/02/2024 Date Published 19/02/2024		1.58	2.79	2.21	1.83	1.60
January 2024 Report received 14/02/2024 Date Published 19/02/2024		1.56	2.75	2.03	1.85	1.63
February 2024 Report received 14/03/2024 Date Published 09/12/2024		1.64	2.90	2.10	1.96	1.70
March 2024 Report received 14/04/2024 Date Published 09/12/2024		1.34	2.79	1.87	1.83	1.57

	Dust Deposition Gauges (grams per square meter per month as 12-month rolling average)					
	1	**2**	**4**	**5**	**6**	**7**
April 2024 Report received 14/05/2024 Date Published 09/12/2024		1.52	2.75	1.87	1.93	1.61
May 2024 Report received 14/06/2024 Date Published 09/12/2024		1.76	2.87	1.87	2.13	1.57
June 2024 Report received 14/07/2024 Date Published 09/12/2024		1.71	2.84	1.73	2.08	1.61
July 2024 Report received 14/08/2024 Date Published 09/12/2024		1.82	2.73	1.57	2.10	1.68
August 2024 Report received 14/09/2024 Date Published 09/12/2024		1.91	2.64	1.55	2.15	1.70
September 2024 Report received 14/010/2024 Date Published 09/12/2024		1.89	2.64	1.50	2.23	1.72
October 2024 Report received 14/11/2024 Date Published 09/12/2024		1.92	2.35	1.43	2.25	1.42

Compliance Summary: Currently all the dust gauges are compliant with state guidelines. A continuous dust mitigation process is in place by water browser, truck tire wash, and on-site water sprayer. Dust gauge no. 1 is no longer monitored as the land has been sold to another private entity.

Reported Month	Dust Deposition Gauges (4 Years Data) (grams per square meter per month as at actual tested)					
	1	**2**	**4**	**5**	**6**	**7**
November 2018	4.18	4.71	4.6	3.48	4.5	6.67
Dec18-Jan19	6.76	5.71	8.12	4.51	5.08	4.93
February 2019	3.84	5.14	6.21	4.13	4.18	3.23
March 2019	No longer monitored	7.70	2.75	3.4	4.19	2.42
April 2019		1.55	2.58	1.22	1.36	0.41
May 2019		1.85	4.67	1.31	1.19	0.88
June 2019		2.89	6.07	2.17	1.56	2.03
July 2019		1.87	4.36	1.45	1.01	0.92
August 2019		2.72	3.59	2.18	1.77	1.63
September 2019		1.92	4.56	1.56	0.39	1.40
October 2019		1.98	4.12	2.82	3.92	1.45
November 2019		4.43	6.2	4.44	4.51	4.85
December 2019		2.11	3.9	3.81	3.95	3.26
January 2020		6.21	7.93	9.04	7.99	6.90
February 2020		5.25	6.76	7.85	5.36	4.07
March 2020		2.21	2.18	2.22	3.29	2.47
April 2020		0.97	1.15	0.86	0.99	1.04

Reported Month	Dust Deposition Gauges (4 Years Data) (grams per square meter per month as at actual tested)					
	1	2	4	5	6	7
May 2020		0.95	2.06	1.03	1.39	1.37
June 2020		0.70	1.37	0.49	0.6	1.33
July 2020		1.78	2.69	1.24	1.79	1.88
August 2020		1.55	3.79	1.51	1.53	2.17
September 2020		1.72	3.20	NA	1.29	3.81
October 2020		1.12	1.66	1.04	1.65	1.27
November 2020		1.41	1.99	1.58	1.97	1.77
December 2020		1.09	3.99	2.79	2.58	5.17
January 2021		1.03	0.95	1.32	NA	NA
February 2021		0.77	1.15	1.23	1.16	1.17
March 2021		1.24	1.40	0.99	1.56	1.35
April 2021		1.30	1.28	1.77	1.99	1.58
May 2021		1.76	3.28	1.91	2.09	1.69
June 2021		1.39	1.84	1.63	0.78	0.83
July 2021		4.65	3.92	1.23	1.01	1.06
August 2021		1.46	4.79	1.81	0.85	1.24
September 2021		1.25	3.04	1.58	0.94	1.05
October 2021		1.48	5.35	3.07	0.70	1.54
November 2021		1.14	2.32	1.01	2.66	1.08
December 2021		1.57	4.14	2.18	2.96	2.85
January 2022		1.22	2.96	11.57	0.94	1.00
February 2022		4.69	4.75	4.30	3.90	4.32
March 2022		0.83	1.40	1.36	1.18	0.35
April 2022		0.86	1.22	0.16	0.90	0.56
May 2022		1.84	2.77	1.85	1.17	1.89
June 2022		1.87	1.75	3.35	0.36	0.64
July 2022		1.25	4.30	0.91	0.77	1.80
August 2022		0.88	0.26	0.66	0.3	1.71
September 2022		2.41	2.49	2.76	1.48	2.30
October 2022		1.86	1.67	4.02	1.89	4.66
November 2022		0.82	1.52	0.97	0.69	2.57
December 2022		2.55	1.32	1.37	0.67	1.19
January 2023		1.79	2.12	2.82	1.04	0.85
February 2023		0.69	0.64	0.82	0.48	1.04
March 2023		4.61	4.18	3.99	3.34	2.77
April 2023		1.14	2.98	1.06	1.31	0.00
May 2023		0.56	0.93	2.17	0.4	0.77
June 2023		1.12	2.16	2.73	1.32	0.89
July 2023		0.68	2.66	2.70	0.34	0.77
August 2023		0.88	3.06	1.53	0.56	0.74
September 2023		1.40	1.93	2.04	2.15	0.92
October 2023		1.43	6.13	2.76	1.58	5.59
November 2023		2.74	3.76	2.01	5.95	2.79
December 2023		1.88	2.97	1.87	3.52	2.07

Reported Month	Dust Deposition Gauges (4 Years Data) (grams per square meter per month as at actual tested)					
	1	2	4	5	6	7
January 2024		1.63	1.63	0.67	1.24	1.23
February 2024		1.63	2.43	1.61	1.82	1.82
March 2024		0.94	2.82	1.29	1.72	1.29
April 2024		3.35	2.51	1.02	2.51	0.42
May 2024		3.39	2.41	2.26	2.80	0.3
June 2024		0.56	1.81	0.94	0.74	1.38
July 2024		1.98	1.31	0.88	0.60	1.56
August 2024		2.01	2.01	1.27	1.19	1.05
September 2024		1.13	1.84	1.37	3.11	1.15
October 2024		1.80	2.68	1.95	1.77	1.92

2. *Water monitoring*

Runoff water from the cement works and surrounding agricultural land is captured in various storage dams on-site and used as process water. In heavy rain, excess stormwater from the dam called “West Dam A” is allowed to overflow into the Nepean River. The quality of that water is required by the license to be monitored once per overflow event.

Licence limits:
Biological Oxygen Demand: 20 mg/L (milligram/litre)
pH: 6.5-8.5
Turbidity:150 NTU (Nephelometric Turbidity Unit)
Total Suspended Solids: 30 mg/L (milligram/litre)

Sampling Date	Report received	Date published	Biological Oxygen Demand (mg/L)	Oil and Grease (mg/L)	pH	Turbidity (NTU)	Total Suspended Solids (mg/L)
03.03.17	21.03.17	04.04.17	<5	0.5	7.7	9.7	13
15.03.17	24.04.17	03.05.17	<5	1.2	8	13	19
10.06.17	10.07.17	02.08.17	<5	<0.1	7.7	11	12
11.08.20	31.08.20	02.09.20	<5	0.4	7.8	6.6	12
15.08.20	02.09.20	12.10.20	<5	0.3	7.8	6.4	7
31.10.20	18.11.20	04.12.20	<5	0.3	8.0	6.4	6
05.11.20	23.11.20	04.12.20	<5	0.4	8.2	3.2	3
29.12.20	29.01.21	08.02.21	<5	<0.1	8.4	3.1	9
05.01.21	29.01.21	08.02.21	<5	0.2	7.9	1.4	10
19.03.21	26.03.21	21.06.21	<5	<0.1	7.5	5.2	1
25.08.21	16.09.21	08.11.21	<5	0.4	7.6	18	23
12.05.21	19.05.21	12.08.22	<5	<0.1	8.2	18	38
02.07.22	12.07.22	12.08.22	<5	<0.1	7.4	30	83
05.07.22	03.08.22	12.08.22	<5	<0.1	7.5	10	8
27.09.22		14.12.22	< 5	< 0.1	8.4	2.9	8
28.09.22		14.12.22	< 5	< 0.1	8.4	9.7	20
05.10.22		14.12.22	< 5	< 0.1	8	12	7
06.10.22		14.12.22	< 5	< 0.1	8	12	7

07.10.22		14.12.22	< 5	< 0.1	7.9	6.1	5
08.10.22		14.12.22	< 5	< 0.1	8.5	2.6	4
09.10.22		14.12.22	< 5	< 0.1	7.7	4.3	6
10.10.22		14.12.22	< 5	< 0.1	7.7	1.4	4
1.11.22		14.12.22	< 5	< 0.1	7.5	6.1	20
2.11.22		14.12.22	< 5	< 0.1	8.4	0.9	5
3.11.22		14.12.22	< 5	< 0.1	8.7	1.4	7
14.11.22		14.12.22	< 5	< 0.1	8.3	10	18
22/01/2023	18/12/23	10.12.24	<5	0.5	8.3	11	34
27/01/2023	18/12/23	10.12.24	< 5	0.5	7.9	9.8	27
31/01/2023	18/12/23	10.12.24	< 5	< 0.1	7.5	8.8	27
2/5/2023	18/12/23	10.12.24	< 5	< 0.1	8.4	6.5	4
5/04/2024	30/10/24	10.12.24	< 5	< 0.1	8.9	11	54
9/04/2024	30/10/24	10.12.24	< 5	< 0.1	8.8	11	23
12/04/2024	30/10/24	10.12.24	< 5	< 0.1	8.9	13	47
7/05/2024	30/10/24	10.12.24	< 5	< 0.1	7.8	6.2	15
8/05/2024	30/10/24	10.12.24	< 5	< 0.1	7.8	12	37
9/05/2024	30/10/24	10.12.24	< 5	< 0.1	7.7	9	11
11/05/2024	30/10/24	10.12.24	< 5	< 0.1	7.7	5.2	5
13/05/2024	30/10/24	10.12.24	< 5	< 0.1	7.7	5.3	8
7/06/2024	30/10/24	10.12.24	< 5	< 0.1	7.3	19	41

3. Stack emission monitoring

2018-19: Report Date: 11/11/2019
2019-20: Report Date: 23/11/2020
2020-21: Report Date: 11/11/2021
2021-22: Report Date: 27/10/2022
2022-23: Report Date: 22/9/2023
2023-24: Report Date: 6/12/2024

Date	**Assessable Parameter (mg/m^3)** (milligram/cubic metre)	**Emission Source: Cement Mill No 2 Stack License Limit 100**	**Emission Source: Cement Mill No 3 Stack License Limit 100**	**Emission Source: Dry Mix Plant Dryer License Limit 30**
2018 - 19	Solid Particles	19	26	10.55
2019 -20	Solid Particles	3.5	78.5	10.3
2020 - 21	Solid Particles	4.1	80	2.3
2021- 22	Solid Particles	27	46	9.2
2022 - 23	Solid Particles	3.5	68	6.4
2023-24	Solid Particles	14	21	26

Compliance Summary: The cement plant is compliant with the Licence limits.

REPORT ENDS