



Eraring Power Station - EPA Licence 1429  
Rocky Point Rd, Dora Creek NSW 2264

## Environmental Monitoring Data November 2021



## Unit 1A Boiler Continuous Emission Monitoring Summary

*EPA Identification no.7 - Air emissions monitoring, Boiler 1 stack discharge to air*

*SOx Unit Out of Service 3-30 November 2021*

*NOx Unit Out of Service 27-30 November 2021*

	NOX			SOX		
	ppm (7% O <sub>2</sub> )			ppm (7% O <sub>2</sub> )		
	Daily Ave	Max Hourly	Min Hourly	Daily Ave	Max Hourly	Min Hourly
1 November	151	192	128	137	201	111
2 November	188	218	142	194	465	104
3 November	149	170	127	-	-	-
4 November	151	189	130	-	-	-
5 November	174	195	157	-	-	-
6 November	159	191	133	-	-	-
7 November	160	194	138	-	-	-
8 November	151	185	113	-	-	-
9 November	150	183	134	-	-	-
10 November	156	181	126	-	-	-
11 November	158	173	142	-	-	-
12 November	147	160	135	-	-	-
13 November	159	185	139	-	-	-
14 November	173	182	154	-	-	-
15 November	171	199	157	-	-	-
16 November	163	183	137	-	-	-
17 November	153	169	101	-	-	-
18 November	153	167	132	-	-	-
19 November	156	171	143	-	-	-
20 November	151	185	125	-	-	-
21 November	166	204	138	-	-	-
22 November	159	183	103	-	-	-
23 November	156	180	140	-	-	-
24 November	177	194	155	-	-	-
25 November	175	512	133	-	-	-
26 November	160	165	154	-	-	-
27 November	-	-	-	-	-	-
28 November	-	-	-	-	-	-
29 November	-	-	-	-	-	-
30 November	-	-	-	-	-	-

## Unit 1B Boiler Continuous Emission Monitoring Summary

*EPA Identification no.7 - Air emissions monitoring, Boiler 1 stack discharge to air  
Unit 1 B Out of Service 27-29 November 2021*

	NOX			SOX		
	ppm (7% O <sub>2</sub> )			ppm (7% O <sub>2</sub> )		
	Daily Ave	Max Hourly	Min Hourly	Daily Ave	Max Hourly	Min Hourly
1 November	148	188	125	210	232	194
2 November	187	231	114	214	244	193
3 November	140	159	120	226	260	215
4 November	137	181	115	216	247	191
5 November	153	173	137	214	227	202
6 November	146	179	125	207	226	198
7 November	146	179	125	221	236	215
8 November	146	176	125	205	225	125
9 November	138	168	126	210	222	202
10 November	143	165	120	213	218	203
11 November	138	145	130	201	218	192
12 November	139	156	125	211	227	197
13 November	145	161	130	209	221	192
14 November	162	172	144	196	218	177
15 November	160	170	148	205	239	181
16 November	146	161	130	193	206	177
17 November	143	154	133	218	231	187
18 November	141	151	129	206	223	197
19 November	141	152	129	203	210	195
20 November	134	160	114	204	218	192
21 November	145	168	123	196	209	183
22 November	147	163	133	167	199	157
23 November	142	160	129	169	200	157
24 November	158	225	143	180	190	157
25 November	152	374	122	195	441	164
26 November	141	144	126	196	206	187
27 November	-	-	-	-	-	-
28 November	-	-	-	-	-	-
29 November	-	-	-	-	-	-
30 November	165	196	139	200	217	186

### **Unit 2A Boiler Continuous Emission Monitoring Summary**

*EPA Identification no. 9 - Air emissions monitoring, Boiler 2 stack discharge to air  
NOx Unit Out of Service 28-30 November 2021*

	NOX			SOX		
	ppm (7% O <sub>2</sub> )			ppm (7% O <sub>2</sub> )		
	Daily Ave	Max Hourly	Min Hourly	Daily Ave	Max Hourly	Min Hourly
1 November	154	208	131	190	220	183
2 November	205	315	189	198	236	184
3 November	192	213	173	200	241	189
4 November	162	202	145	195	231	178
5 November	181	216	162	197	215	157
6 November	181	217	152	194	222	186
7 November	164	183	150	204	220	195
8 November	165	179	154	194	212	184
9 November	156	172	101	193	211	125
10 November	169	194	145	201	215	182
11 November	161	174	125	185	200	172
12 November	165	209	136	185	202	171
13 November	150	181	127	196	242	178
14 November	153	177	139	176	195	156
15 November	173	217	160	196	225	154
16 November	179	201	155	188	207	166
17 November	158	184	135	195	208	180
18 November	152	217	136	185	205	108
19 November	154	203	131	186	206	168
20 November	163	202	143	197	209	188
21 November	156	184	102	187	209	172
22 November	164	194	106	158	220	145
23 November	163	178	150	164	233	156
24 November	168	202	144	169	202	155
25 November	163	181	147	177	204	169
26 November	165	178	103	184	240	175
27 November	166	166	166	158	199	119
28 November	-	-	-	125	146	116
29 November	-	-	-	159	209	117
30 November	-	-	-	183	208	170

## Unit 2B Boiler Continuous Emission Monitoring Summary

*EPA Identification no. 10 - Air emissions monitoring, Boiler 2 stack discharge to air  
SOx Unit Out of Order 1 November 2021*

	NOX			SOX		
	ppm (7% O <sub>2</sub> )			ppm (7% O <sub>2</sub> )		
	Daily Ave	Max Hourly	Min Hourly	Daily Ave	Max Hourly	Min Hourly
1 November	139	190	101	-	-	-
2 November	194	308	173	187	205	118
3 November	161	187	132	173	204	148
4 November	148	162	121	181	198	150
5 November	158	220	137	177	200	163
6 November	165	207	132	174	186	160
7 November	142	161	129	178	199	153
8 November	143	222	120	161	179	127
9 November	144	214	123	164	181	133
10 November	134	154	121	160	184	145
11 November	144	169	126	159	176	149
12 November	150	199	118	166	184	148
13 November	137	174	100	150	183	102
14 November	143	161	128	169	189	153
15 November	145	161	121	180	210	150
16 November	142	169	124	159	186	130
17 November	159	189	131	201	249	170
18 November	147	157	133	191	206	170
19 November	147	209	128	175	195	134
20 November	150	169	134	179	190	158
21 November	149	179	127	178	192	150
22 November	159	193	128	155	207	136
23 November	154	174	133	156	214	111
24 November	152	215	129	158	219	130
25 November	145	180	113	158	213	118
26 November	175	184	172	185	219	180
27 November	151	191	117	160	184	129
28 November	149	166	123	162	179	145
29 November	167	459	116	176	483	138
30 November	158	190	132	166	186	138



### Unit 3A Boiler Continuous Emission Monitoring Summary

*EPA Identification no. 11 - Air emissions monitoring, Boiler 3 stack discharge to air*

	NOX			SOX		
	ppm (7% O <sub>2</sub> )			ppm (7% O <sub>2</sub> )		
	Daily Ave	Max Hourly	Min Hourly	Daily Ave	Max Hourly	Min Hourly
1 November	172	202	122	218	229	203
2 November	154	163	143	228	247	213
3 November	159	187	137	232	247	222
4 November	175	208	121	218	237	200
5 November	176	214	140	224	241	201
6 November	168	198	149	218	230	208
7 November	154	196	133	227	238	218
8 November	152	186	132	216	229	207
9 November	152	192	102	223	235	212
10 November	169	191	135	224	236	177
11 November	149	175	100	212	237	203
12 November	136	172	119	224	234	211
13 November	182	209	150	227	237	213
14 November	189	202	165	216	239	200
15 November	193	282	124	224	248	154
16 November	201	275	153	214	236	191
17 November	178	209	129	228	244	202
18 November	169	198	118	228	248	210
19 November	162	207	102	216	231	182
20 November	159	177	136	223	231	217
21 November	166	203	147	221	230	214
22 November	171	190	145	200	278	178
23 November	156	188	128	186	195	180
24 November	145	202	114	167	196	131
25 November	155	191	110	167	209	129
26 November	156	202	133	206	209	201
27 November	153	175	136	190	199	174
28 November	151	199	136	180	197	167
29 November	168	200	150	196	219	176
30 November	156	211	119	203	219	180

### Unit 3B Boiler Continuous Emission Monitoring Summary

*EPA Identification no. 12 - Air emissions monitoring, Boiler 3 stack discharge to air*

	NOX			SOX		
	ppm (7% O <sub>2</sub> )			ppm (7% O <sub>2</sub> )		
	Daily Ave	Max Hourly	Min Hourly	Daily Ave	Max Hourly	Min Hourly
1 November	165	192	125	210	231	161
2 November	160	175	140	232	251	206
3 November	166	185	144	237	251	224
4 November	178	219	116	223	232	200
5 November	174	214	142	229	247	212
6 November	168	207	139	224	235	214
7 November	151	206	124	232	244	215
8 November	149	197	127	222	242	206
9 November	159	206	137	228	239	212
10 November	174	201	134	233	242	219
11 November	156	182	131	215	238	202
12 November	138	170	119	227	240	214
13 November	174	196	128	231	239	213
14 November	179	197	155	219	243	198
15 November	186	217	159	231	248	212
16 November	202	290	145	218	236	194
17 November	186	219	150	234	252	193
18 November	172	214	138	233	252	214
19 November	169	233	124	222	233	190
20 November	161	188	135	226	238	207
21 November	157	211	129	224	237	214
22 November	168	188	133	205	278	182
23 November	156	183	129	188	195	172
24 November	178	221	138	201	211	175
25 November	172	202	149	198	213	181
26 November	156	216	131	213	220	187
27 November	151	184	134	206	217	186
28 November	160	220	120	195	217	175
29 November	189	222	155	214	240	187
30 November	174	244	133	222	239	189

## Unit 4A Boiler Continuous Emission Monitoring Summary

*EPA Identification no. 13 - Air emissions monitoring, Boiler 4 stack discharge to air*

*Unit 4A Out of Service 4-21 November2021*

	NOX			SOX		
	ppm (7% O <sub>2</sub> )			ppm (7% O <sub>2</sub> )		
	Daily Ave	Max Hourly	Min Hourly	Daily Ave	Max Hourly	Min Hourly
1 November	229	288	156	200	218	189
2 November	185	208	165	207	223	189
3 November	181	208	158	217	233	208
4 November	-	-	-	-	-	-
5 November	-	-	-	-	-	-
6 November	-	-	-	-	-	-
7 November	-	-	-	-	-	-
8 November	-	-	-	-	-	-
9 November	-	-	-	-	-	-
10 November	-	-	-	-	-	-
11 November	-	-	-	-	-	-
12 November	-	-	-	-	-	-
13 November	-	-	-	-	-	-
14 November	-	-	-	-	-	-
15 November	-	-	-	-	-	-
16 November	-	-	-	-	-	-
17 November	-	-	-	-	-	-
18 November	-	-	-	-	-	-
19 November	-	-	-	-	-	-
20 November	-	-	-	-	-	-
21 November	-	-	-	-	-	-
22 November	188	204	149	203	332	170
23 November	169	219	149	183	196	173
24 November	156	164	144	187	197	172
25 November	149	164	124	187	201	167
26 November	151	181	126	186	193	176
27 November	177	208	155	195	214	140
28 November	164	193	151	169	188	153
29 November	174	187	159	184	205	163
30 November	154	177	133	192	204	175



**Unit 4B Boiler Continuous Emission Monitoring Summary**

*EPA Identification no. 14 – Air emissions monitoring, Boiler 4 stack discharge to air*

*Unit 4B Out of Service 4-21 November 2021*

*Sox Unit Out of Service 23 November 2021*

	NOX			SOX		
	ppm (7% O <sub>2</sub> )			ppm (7% O <sub>2</sub> )		
	Daily Ave	Max Hourly	Min Hourly	Daily Ave	Max Hourly	Min Hourly
1 November	239	300	172	224	238	199
2 November	191	220	169	237	252	214
3 November	183	199	157	248	264	238
4 November	-	-	-	-	-	-
5 November	-	-	-	-	-	-
6 November	-	-	-	-	-	-
7 November	-	-	-	-	-	-
8 November	-	-	-	-	-	-
9 November	-	-	-	-	-	-
10 November	-	-	-	-	-	-
11 November	-	-	-	-	-	-
12 November	-	-	-	-	-	-
13 November	-	-	-	-	-	-
14 November	-	-	-	-	-	-
15 November	-	-	-	-	-	-
16 November	-	-	-	-	-	-
17 November	-	-	-	-	-	-
18 November	-	-	-	-	-	-
19 November	-	-	-	-	-	-
20 November	-	-	-	-	-	-
21 November	-	-	-	-	-	-
22 November	493	544	442	405	490	235
23 November	527	527	527	-	-	-
24 November	230	546	169	220	225	217
25 November	168	184	137	216	230	201
26 November	186	278	164	238	281	214
27 November	208	253	175	240	259	194
28 November	202	258	162	211	231	190
29 November	211	249	186	219	249	194
30 November	187	238	153	224	238	211

### Unit 1 Boiler Emission Test Results

*EPA Identification no. 3 - Air emissions monitoring, Boiler 1 stack discharge to air*

Name	Reading	Units	Licence Limit	Date
Chlorine	0.014	mg/m <sup>3</sup>	20	27/04/2021
Fluorine	11	mg/m <sup>3</sup>	30	27/04/2021
Hydrogen chloride	2.9	mg/m <sup>3</sup>	50	27/04/2021
Solid Particles	<4	mg/m <sup>3</sup>	50	27/04/2021
Sulfuric acid mist and sulfur trioxide (as SO <sub>3</sub> )	0.59	mg/m <sup>3</sup>	100	27/04/2021
Volatile organic compounds as n-propane equivalent	<0.08	mg/m <sup>3</sup>	10	27/04/2021
Cadmium	<0.0002	mg/m <sup>3</sup>	0.2	9/07/2021
Mercury	<0.0002	mg/m <sup>3</sup>	0.05	9/07/2021
Solid Particles	2.3	mg/m <sup>3</sup>	50	9/07/2021
Type 1 and 2 substances in Aggregate	<0.03	mg/m <sup>3</sup>	0.75	9/07/2021

*EPA Identification no. 7 - Air emissions monitoring, Boiler 1 Exhaust Duct A*

Name	Reading	Units	Licence Limit	Date
Flow Rate	370	m <sup>3</sup> /sec		27/04/2021
Moisture	5.7	%		27/04/2021
Oxygen	8.3	%		27/04/2021
Solid Particles	7.8	mg/m <sup>3</sup>		27/04/2021
Temperature	117	degC		27/04/2021
Carbon dioxide	12.1	%		27/04/2021
Cadmium	<0.0002	mg/m <sup>3</sup>		9/07/2021
Flow Rate	370	m <sup>3</sup> /sec		9/07/2021
Mercury	0.00016	mg/m <sup>3</sup>		9/07/2021
Moisture	5.2	%		9/07/2021
Oxygen	7.3	%		9/07/2021
Solid Particles	2.2	mg/m <sup>3</sup>		9/07/2021
Temperature	115	degC		9/07/2021
Type 1 and Type 2 substances in Aggregate	<0.040	mg/m <sup>3</sup>		9/07/2021
Carbon dioxide	12.5	%		9/07/2021

*EPA Identification no. 8 - Air emissions monitoring, Boiler 1 Exhaust Duct B*

Name	Reading	Units	Licence Limit	Date
Flow Rate	400	m <sup>3</sup> /sec		27/04/2021
Moisture	5.2	%		27/04/2021
Oxygen	6.5	%		27/04/2021
Solid Particles	<0.9	mg/m <sup>3</sup>		27/04/2021
Temperature	121	degC		27/04/2021
Carbon dioxide	12.4	%		27/04/2021
Chlorine	0.014	mg/m <sup>3</sup>		27/04/2021
Fluorine	11	mg/m <sup>3</sup>		27/04/2021
Hydrogen chloride	2.9	mg/m <sup>3</sup>		27/04/2021
Sulfuric acid mist and sulfur trioxide (as SO <sub>3</sub> )	0.59	mg/m <sup>3</sup>		27/04/2021
Volatile organic compounds as n-propane equivalent	<0.08	mg/m <sup>3</sup>		27/04/2021
Cadmium	<0.0002	mg/m <sup>3</sup>		9/07/2021
Flow Rate	370	m <sup>3</sup> /sec		9/07/2021
Mercury	<0.0002	mg/m <sup>3</sup>		9/07/2021
Moisture	5.7	%		9/07/2021
Oxygen	6.4	%		9/07/2021
Solid Particles	2.3	mg/m <sup>3</sup>		9/07/2021
Temperature	119	degC		9/07/2021
Type 1 and Type 2 substances in Aggregate	<0.021	mg/m <sup>3</sup>		9/07/2021
Carbon dioxide	12.6	%		9/07/2021

## Unit 2 Boiler Emission Test Results

*EPA Identification no. 4 - Air emissions monitoring, Boiler 2 stack discharge to air*

Name	Reading	Units	Licence Limit	Date
Chlorine	<0.008	mg/m <sup>3</sup>	20	28/04/2021
Fluorine	4.0	mg/m <sup>3</sup>	30	28/04/2021
Hydrogen chloride	1.1	mg/m <sup>3</sup>	50	28/04/2021
Solid Particles	5.1	mg/m <sup>3</sup>	50	28/04/2021
Sulfuric acid mist and sulfur trioxide (as SO <sub>3</sub> )	1.7	mg/m <sup>3</sup>	100	28/04/2021
Volatile organic compounds as n-propane equivalent	0.049	mg/m <sup>3</sup>	10	28/04/2021
Cadmium	<0.0002	mg/m <sup>3</sup>	0.2	7/07/2021
Mercury	0.0016	mg/m <sup>3</sup>	0.05	7/07/2021
Solid Particles	4.1	mg/m <sup>3</sup>	50	7/07/2021
Type 1 and 2 substances in Aggregate	<0.02	mg/m <sup>3</sup>	0.75	7/07/2021

*EPA Identification no. 9 - Air emissions monitoring, Boiler 2 Exhaust Duct A*

Name	Reading	Units	Licence Limit	Date
Flow Rate	350	m <sup>3</sup> /sec		28/04/2021
Moisture	5.4	%		28/04/2021
Oxygen	7.2	%		28/04/2021
Solid Particles	6.9	mg/m <sup>3</sup>		28/04/2021
Temperature	122	degC		28/04/2021
Carbon dioxide	11.8	%		28/04/2021
Chlorine	<0.008	mg/m <sup>3</sup>		28/04/2021
Fluorine	4.0	mg/m <sup>3</sup>		28/04/2021
Hydrogen chloride	1.1	mg/m <sup>3</sup>		28/04/2021
Sulfuric acid mist and sulfur trioxide (as SO <sub>3</sub> )	1.7	mg/m <sup>3</sup>		28/04/2021
Volatile organic compounds as n-propane equivalent	0.049	mg/m <sup>3</sup>		28/04/2021
Cadmium	<0.0002	mg/m <sup>3</sup>		7/07/2021
Flow Rate	250	m <sup>3</sup> /sec		7/07/2021
Mercury	0.0015	mg/m <sup>3</sup>		7/07/2021
Moisture	6.1	%		7/07/2021
Oxygen	8.8	%		7/07/2021
Solid Particles	4.1	mg/m <sup>3</sup>		7/07/2021
Temperature	125	degC		7/07/2021
Type 1 and Type 2 substances in Aggregate	<0.015	mg/m <sup>3</sup>		7/07/2021
Carbon dioxide	10.5	%		7/07/2021

*EPA Identification no. 10 - Air emissions monitoring, Boiler 2 Exhaust Duct B*

Name	Reading	Units	Licence Limit	Date
Flow Rate	350	m <sup>3</sup> /sec		28/04/2021
Moisture	6.1	%		28/04/2021
Oxygen	5.8	%		28/04/2021
Solid Particles	3.3	mg/m <sup>3</sup>		28/04/2021
Temperature	119	degC		28/04/2021
Carbon dioxide	14.5	%		28/04/2021
Cadmium	<0.0003	mg/m <sup>3</sup>		7/07/2021
Flow Rate	230	m <sup>3</sup> /sec		7/07/2021
Mercury	0.0018	mg/m <sup>3</sup>		7/07/2021
Moisture	11	%		7/07/2021
Oxygen	9.6	%		7/07/2021
Solid Particles	4.2	mg/m <sup>3</sup>		7/07/2021
Temperature	115	degC		7/07/2021
Type 1 and Type 2 substances in Aggregate	<0.019	mg/m <sup>3</sup>		7/07/2021
Carbon dioxide	10.9	%		7/07/2021

### Unit 3 Boiler Emission Test Results

*EPA Identification no. 5 - Air emissions monitoring, Boiler 3 stack discharge to air*

Name	Reading	Units	Licence Limit	Date
Chlorine	0.016	mg/m3	20	29/04/2021
Fluorine	6.3	mg/m3	30	29/04/2021
Hydrogen chloride	2.2	mg/m3	50	29/04/2021
Solid Particles	2.6	mg/m3	50	29/04/2021
Sulfuric acid mist and sulfur trioxide (as SO3)	1.6	mg/m3	100	29/04/2021
Volatile organic compounds as n-propane equivalent	<0.08	mg/m3	10	29/04/2021
Cadmium	<0.0002	mg/m3	0.2	8/07/2021
Mercury	0.00035	mg/m3	0.05	8/07/2021
Solid Particles	4.1	mg/m3	50	8/07/2021
Type 1 and 2 substances in Aggregate	<0.04	mg/m3	0.75	8/07/2021

*EPA Identification no. 11 - Air emissions monitoring, Boiler 3 Exhaust Duct A*

Name	Reading	Units	Licence Limit	Date
Flow Rate	340	m3/sec		29/04/2021
Moisture	6.0	%		29/04/2021
Oxygen	5.9	%		29/04/2021
Solid Particles	2.7	mg/m3		29/04/2021
Temperature	125	degC		29/04/2021
Carbon dioxide	14.5	%		29/04/2021
Cadmium	<0.0002	mg/m3		8/07/2021
Flow Rate	370	m3/sec		8/07/2021
Mercury	0.00027	mg/m3		8/07/2021
Moisture	5.4	%		8/07/2021
Oxygen	6.7	%		8/07/2021
Solid Particles	7.0	mg/m3		8/07/2021
Temperature	123	degC		8/07/2021
Type 1 and Type 2 substances in Aggregate	<0.040	mg/m3		8/07/2021
Carbon dioxide	13.1	%		8/07/2021

*EPA Identification no. 12 - Air emissions monitoring, Boiler 3 Exhaust Duct B*

Name	Reading	Units	Licence Limit	Date
Flow Rate	320	m3/sec		29/04/2021
Moisture	5.5	%		29/04/2021
Oxygen	6.8	%		29/04/2021
Solid Particles	2.5	mg/m3		29/04/2021
Temperature	117	degC		29/04/2021
Carbon dioxide	12.2	%		29/04/2021
Chlorine	0.016	mg/m3		29/04/2021
Fluorine	6.3	mg/m3		29/04/2021
Hydrogen chloride	2.2	mg/m3		29/04/2021
Sulfuric acid mist and sulfur trioxide (as SO3)	1.6	mg/m3		29/04/2021
Volatile organic compounds as n-propane equivalent	<0.08	mg/m3		29/04/2021
Cadmium	<0.0002	mg/m3		8/07/2021
Flow Rate	330	m3/sec		8/07/2021
Mercury	0.00044	mg/m3		8/07/2021
Moisture	5.4	%		8/07/2021
Oxygen	6.4	%		8/07/2021
Solid Particles	0.8	mg/m3		8/07/2021
Temperature	120	degC		8/07/2021
Type 1 and Type 2 substances in Aggregate	<0.031	mg/m3		8/07/2021
Carbon dioxide	12.6	%		8/07/2021

### Unit 4 Boiler Emission Test Results

*EPA Identification no. 6 - Air emissions monitoring, Boiler 4 stack discharge to air*

Name	Reading	Units	Licence Limit	Date
Chlorine	0.01	mg/m <sup>3</sup>	20	7/04/2021
Fluorine	13	mg/m <sup>3</sup>	30	7/04/2021
Hydrogen chloride	2.7	mg/m <sup>3</sup>	50	7/04/2021
Solid Particles	6.2	mg/m <sup>3</sup>	50	29/06/2021
Sulfuric acid mist and sulfur trioxide (as SO <sub>3</sub> )	2.7	mg/m <sup>3</sup>	100	7/04/2021
Volatile organic compounds as n-propane equivalent	<0.1	mg/m <sup>3</sup>	10	7/04/2021
Cadmium	<0.0003	mg/m <sup>3</sup>	0.2	6/07/2021
Mercury	0.00037	mg/m <sup>3</sup>	0.05	6/07/2021
Solid Particles	4.4	mg/m <sup>3</sup>	50	6/07/2021
Type 1 and 2 substances in Aggregate	<0.02	mg/m <sup>3</sup>	0.75	6/07/2021

*EPA Identification no. 13 - Air emissions monitoring, Boiler 4 Exhaust Duct A*

Name	Reading	Units	Licence Limit	Date
Flow Rate	500	m <sup>3</sup> /sec		7/04/2021
Moisture	5.3	%		7/04/2021
Oxygen	10.4	%		7/04/2021
Solid Particles	9.5	mg/m <sup>3</sup>		7/04/2021
Temperature	111	degC		7/04/2021
Carbon dioxide	10.4	%		7/04/2021
Chlorine	0.01	mg/m <sup>3</sup>		7/04/2021
Fluorine	13	mg/m <sup>3</sup>		7/04/2021
Hydrogen chloride	2.7	mg/m <sup>3</sup>		7/04/2021
Sulfuric acid mist and sulfur trioxide (as SO <sub>3</sub> )	2.7	mg/m <sup>3</sup>		7/04/2021
Volatile organic compounds as n-propane equivalent	<0.1	mg/m <sup>3</sup>		7/04/2021
Cadmium	<0.0003	mg/m <sup>3</sup>		6/07/2021
Flow Rate	390	m <sup>3</sup> /sec		6/07/2021
Mercury	0.00049	mg/m <sup>3</sup>		6/07/2021
Moisture	5.3	%		6/07/2021
Oxygen	8.8	%		6/07/2021
Solid Particles	7.0	mg/m <sup>3</sup>		6/07/2021
Temperature	119	degC		6/07/2021
Type 1 and Type 2 substances in Aggregate	<0.030	mg/m <sup>3</sup>		6/07/2021
Carbon dioxide	10.0	%		6/07/2021

*EPA Identification no. 14 - Air emissions monitoring, Boiler 4 Exhaust Duct B*

Name	Reading	Units	Licence Limit	Date
Flow Rate	400	m <sup>3</sup> /sec		29/06/2021
Moisture	5.9	%		29/06/2021
Oxygen	6.9	%		29/06/2021
Solid Particles	2	mg/m <sup>3</sup>		29/06/2021
Temperature	121	degC		29/06/2021
Carbon dioxide	13.4	%		29/06/2021
Cadmium	<0.0002	mg/m <sup>3</sup>		6/07/2021
Flow Rate	380	m <sup>3</sup> /sec		6/07/2021
Mercury	0.00024	mg/m <sup>3</sup>		6/07/2021
Moisture	5.5	%		6/07/2021
Oxygen	6.7	%		6/07/2021
Solid Particles	1.8	mg/m <sup>3</sup>		6/07/2021
Temperature	115	degC		6/07/2021
Type 1 and Type 2 substances in Aggregate	<0.011	mg/m <sup>3</sup>		6/07/2021
Carbon dioxide	13.0	%		6/07/2021

## Eraring Depositional Dust Gauges

*EPA Identification no. 17, 18, 19 & 20- Depositional dust monitoring within 1km of the coal handling operations*

Eraring Identification	EPA Identification No	Deposited Matter		
		g/m <sup>2</sup> /month		
		Ash	Combustible	Insoluble
E2	17	0.4	0.1	0.5
E4	18	0.4	0.2	0.6
E6	19	0.6	0.3	0.9
U6	20	1.5	0.2	1.7

*E6 anomalous elevated result due to organic material.*

## Water Quality - Lake Monitoring LM10

*EPA Identification no. 27 - The waters of Lake Macquarie located midway between cooling water inlet and Hungary Point*

Air Temp	Depth	Water Temp	pH	Salinity	Dissolved Oxygen		Secchi
°C	m	degC	pH unit	ppt	%	mg/L	m
20.6	0.50	21.36	8.22	18.5	96.7	7.53	1.75
Name			Reading		Units		Date
Aluminium			0.042		mg/L		1/11/2021
Ammonia			<0.010		mg/L		1/11/2021
Arsenic III			<0.005		mg/		1/11/2021
Arsenic V			<0.005		mg/L		1/11/2021
Cadmium			<0.0002		mg/L		1/11/2021
Chromium (Trivalent)			<0.001		mg/L		1/11/2021
Chromium (VI) Compounds			<0.001		mg/L		1/11/2021
Copper			0.002		mg/L		1/11/2021
Iron			0.064		mg/L		1/11/2021
Lead			<0.0002		mg/L		1/11/2021
Manganese			0.0083		mg/L		1/11/2021
Nickel			<0.0005		mg/L		1/11/2021
pH			8.07		pH units		1/11/2021
Selenium			<0.002		mg/L		1/11/2021
Total Suspended Solids			<5		mg/L		1/11/2021
Vanadium			0.0021		mg/L		1/11/2021
Zinc			<0.005		mg/L		1/11/2021



## Water Quality - Lake Monitoring LM12

*EPA Identification no. 29 - The waters of Lake Macquarie located at the Eraring/Vales Point mixing zone off Fishery Point*

Air Temp	Depth	Water Temp	pH	Salinity	Dissolved Oxygen		Secchi
°C	m	degC	pH unit	ppt	%	mg/L	m
19.8	0.50	21.78	8.26	18.4	90.6	7.08	1.75
Name			Reading		Units		Date
Aluminium			0.041		mg/L		1/11/2021
Ammonia			<0.010		mg/L		1/11/2021
Arsenic III			<0.005		mg/L		1/11/2021
Arsenic V			<0.005		mg/L		1/11/2021
Cadmium			<0.0002		mg/L		1/11/2021
Chromium (Trivalent)			<0.001		mg/L		1/11/2021
Chromium (VI) Compounds			<0.001		mg/L		1/11/2021
Copper			0.002		mg/L		1/11/2021
Iron			0.044		mg/L		1/11/2021
Lead			<0.0002		mg/L		1/11/2021
Manganese			0.0072		mg/L		1/11/2021
Nickel			<0.0005		mg/L		1/11/2021
pH			8.10		pH units		1/11/2021
Selenium			<0.002		mg/L		1/11/2021
Total Suspended Solids			<5		mg/L		1/11/2021
Vanadium			0.0024		mg/L		1/11/2021
Zinc			<0.005		mg/L		1/11/2021

## Water Quality - Lake Monitoring LM4

*EPA Identification no. 30 - The northern waters of Lake Macquarie east off  
Lake Macquarie Yacht Club*

Air Temp	Depth	Water Temp	pH	Salinity	Dissolved Oxygen		Secchi
°C	m	degC	pH unit	ppt	%	mg/L	m
20.1	0.50	20.67	8.16	18.4	104.9	8.19	2.75
Name			Reading		Units		Date
Aluminium			0.022		mg/L		1/11/2021
Ammonia			<0.010		mg/L		1/11/2021
Arsenic III			<0.005		mg/L		1/11/2021
Arsenic V			<0.005		mg/L		1/11/2021
Cadmium			<0.0002		mg/L		1/11/2021
Chromium (Trivalent)			<0.001		mg/L		1/11/2021
Chromium (VI) Compounds			<0.001		mg/L		1/11/2021
Copper			0.001		mg/L		1/11/2021
Iron			0.032		mg/L		1/11/2021
Lead			0.0003		mg/L		1/11/2021
Manganese			0.0049		mg/L		1/11/2021
Nickel			<0.0005		mg/L		1/11/2021
pH			8.06		pH units		1/11/2021
Selenium			<0.002		mg/L		1/11/2021
Total Suspended Solids			<5		mg/L		1/11/2021
Vanadium			0.0019		mg/L		1/11/2021
Zinc			<0.005		mg/L		1/11/2021

## Water Quality - Lake Monitoring LM7

*EPA Identification no. 28 - The waters of Lake Macquarie located off old Wangi power station inlet point in Myuna Bay*

Air Temp	Depth	Water Temp	pH	Salinity	Dissolved Oxygen		Secchi
°C	m	degC	pH unit	ppt	%	mg/L	m
18.5	0.5	23.13	8.14	18.4	107.3	8.09	1.75
Name			Reading	Units		Date	
Aluminium			0.057	mg/L		1/11/2021	
Ammonia			<0.010	mg/L		1/11/2021	
Arsenic III			<0.005	mg/L		1/11/2021	
Arsenic V			<0.005	mg/L		1/11/2021	
Cadmium			<0.0002	mg/L		1/11/2021	
Chromium (Trivalent)			<0.001	mg/L		1/11/2021	
Chromium (VI) Compounds			<0.001	mg/L		1/11/2021	
Copper			0.002	mg/L		1/11/2021	
Iron			0.074	mg/L		1/11/2021	
Lead			<0.0002	mg/L		1/11/2021	
Manganese			0.0084	mg/L		1/11/2021	
Nickel			<0.0005	mg/L		1/11/2021	
pH			8.10	pH units		1/11/2021	
Selenium			<0.002	mg/L		1/11/2021	
Total Suspended Solids			<5	mg/L		1/11/2021	
Vanadium			0.0020	mg/L		1/11/2021	
Zinc			<0.005	mg/L		1/11/2021	

## Eraring Ash Dam Effluent Quality Monitoring

*EPA Identification no. 22 - Discharge point below siphon pond weir at  
Ash Dam*

<b>Name</b>	<b>Reading</b>	<b>Units</b>	<b>Licence Limit</b>	<b>Date</b>
Aluminium	0.065	mg/L	-	4/11/2021
Ammonia	0.30	mg/L	-	4/11/2021
Arsenic III	<0.0005	mg/L	-	4/11/2021
Arsenic V	0.0066	mg/L	-	4/11/2021
Cadmium	0.00010	mg/L	-	4/11/2021
Chromium (Trivalent)	<0.001	mg/L	-	4/11/2021
Chromium (VI) Compounds	<0.01	mg/L	-	4/11/2021
Copper	0.0028	mg/L	-	4/11/2021
Iron	0.036	mg/L	-	4/11/2021
Lead	<0.0001	mg/L	-	4/11/2021
Manganese	0.0302	mg/L	-	4/11/2021
Nickel	0.0018	mg/L	-	4/11/2021
Nitrite and Nitrate as N	2.90	mg/L	-	4/11/2021
Nitrogen	3.5	mg/L	-	4/11/2021
pH	8.23	pH units	-	4/11/2021
Phosphorus as P	0.67	mg/L	-	4/11/2021
Reactive Phosphorus as P	0.58	mg/L	-	4/11/2021
Selenium	0.0324	mg/L	-	4/11/2021
Total Kjeldahl Nitrogen	0.6	mg/L	-	4/11/2021
Total Suspended Solids	7	mg/L	-	4/11/2021
Vanadium	0.0406	mg/L	-	4/11/2021
Zinc	<0.001	mg/L	-	4/11/2021

## Eraring Cooling Water Inlet Canal

*EPA Identification no. 31 - Inlet canal of the cooling water intake from  
Lake Macquarie*

Name	Reading	Units	Licence Limit	Date
Aluminium	0.157	mg/L	-	4/11/2021
Ammonia	<0.005	mg/L	-	4/11/2021
Arsenic III	<0.005	mg/L	-	4/11/2021
Arsenic V	<0.005	mg/L	-	4/11/2021
Cadmium	<0.0002	mg/L	-	4/11/2021
Chromium (Trivalent)	<0.001	mg/L	-	4/11/2021
Chromium (VI) Compounds	<0.01	mg/L	-	4/11/2021
Copper	0.0010	mg/L	-	4/11/2021
Iron	0.204	mg/L	-	4/11/2021
Lead	0.0002	mg/L	-	4/11/2021
Manganese	0.0066	mg/L	-	4/11/2021
Nickel	<0.0005	mg/L	-	4/11/2021
pH	8.06	pH units	-	4/11/2021
Selenium	<0.001	mg/L	-	4/11/2021
Total suspended Solids	<5	mg/L	-	4/11/2021
Vanadium	0.0022	mg/L	-	4/11/2021
Zinc	<0.005	mg/L	-	4/11/2021
Dissolved Oxygen	18.3	mg/L	-	4/11/2021
Field Temperature	21.8	degC	-	4/11/2021
Salinity	18.6	ppt	-	4/11/2021
Secchi Disk	3.25	m	-	4/11/2021
Temperature – Average	22.5	deg C	-	November2021
Temperature – Minimum	20.5	deg C	-	November2021
Temperature - Maximum	24.7	deg C	-	November2021

## Eraring Cooling Water Outlet Canal

*EPA Identification no. 21 - Cooling water outlet canal to Myuna Bay*

Name	Reading	Units	Licence Limit	Date
Copper	0.0011	mg/L	0.005	4/11/2021
Iron	0.165	mg/L	0.3	4/11/2021
Selenium	<0.001	mg/L	0.002	4/11/2021
Temperature – Average	28.1	deg C	37.5	November2021
Temperature – Minimum	23.7	deg C	37.5	November2021
Temperature - Maximum	34.0	deg C	37.5	November2021
Maximum Daily Discharge from Ash Dam	32.05	ML	150	November2021
Monthly Discharge from Ash Dam	175.0	ML	-	November2021

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**Emergency Discharge – Toe Drain Pond**

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*EPA Identification no. 24 - Emergency discharge to toe drain collection pond*

<b>Name</b>	<b>Reading</b>	<b>Units</b>	<b>Licence Limit</b>	<b>Date</b>
Aluminium	<0.005	mg/L	-	4/11/2021
Ammonia	2.31	mg/L	-	4/11/2021
Arsenic III	0.0011	mg/L	-	4/11/2021
Arsenic V	<0.0005	mg/L	-	4/11/2021
Cadmium	<0.00005	mg/L	-	4/11/2021
Chromium (Trivalent)	<0.001	mg/L	-	4/11/2021
Chromium (VI) Compounds	<0.01	mg/L	-	4/11/2021
Copper	<0.0005	mg/L	-	4/11/2021
Iron	3.11	mg/L	-	4/11/2021
Lead	<0.0001	mg/L	-	4/11/2021
Manganese	0.894	mg/L	-	4/11/2021
Nickel	0.0016	mg/L	-	4/11/2021
Nitrite and Nitrate as N	0.170	mg/L	-	4/11/2021
Nitrogen	2.67	mg/L	-	4/11/2021
pH	6.86	pH units	6-9.5	4/11/2021
Phosphorus as P	0.062	mg/L	-	4/11/2021
Reactive Phosphorus as P	0.017	mg/L	-	4/11/2021
Selenium	<0.0002	mg/L	-	4/11/2021
Total Kjeldahl Nitrogen	2.50	mg/L	-	4/11/2021
Total Suspended Solids	10	mg/L	50	4/11/2021
Vanadium	0.0008	mg/L	-	4/11/2021
Zinc	0.004	mg/L	-	4/11/2021



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**MR217**

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*EPA Identification no. 23 - Emergency discharge from ash dam outlet at culvert*  
No Discharge during November 2021

<b>Name</b>	<b>Reading</b>	<b>Units</b>	<b>Licence Limit</b>	<b>Date</b>
Aluminium		mg/L	-	
Ammonia		mg/L	-	
Arsenic III		mg/L	-	
Arsenic V		mg/L	-	
Cadmium		mg/L	-	
Chromium (Trivalent)		mg/L	-	
Chromium (VI) Compounds		mg/L	-	
Copper		mg/L	-	
Iron		mg/L	-	
Lead		mg/L	-	
Manganese		mg/L	-	
Nickel		mg/L	-	
Nitrite and Nitrate as N		mg/L	-	
Nitrogen		mg/L	-	
pH		pH units	6-9.5	
Phosphorus as P		mg/L	-	
Reactive Phosphorus as P		mg/L	-	
Selenium		mg/L	-	
Total Kjeldahl Nitrogen		mg/L	-	
Total Suspended Solids		mg/L	50	
Vanadium		mg/L	-	
Zinc		mg/L	-	

**Groundwater Monitoring**  
**Groundwater Well – MW01**

*EPA 01*  
*Identification no. 32 – Groundwater Monitoring Well*

<b>Name</b>	<b>Reading</b>	<b>Units</b>	<b>Date</b>
Aluminium	0.208	mg/L	29/09/2021
Ammonia	0.01	mg/L	29/09/2021
Arsenic (III)	<0.0005	mg/L	29/09/2021
Arsenic (V)	<0.0005	mg/L	29/09/2021
Cadmium	<0.00005	mg/L	29/09/2021
Calcium	2	mg/L	29/09/2021
Chromium (trivalent)	<0.001	mg/L	29/09/2021
Chromium (VI) compounds	<0.001	mg/L	29/09/2021
Copper	0.0024	mg/L	29/09/2021
Electrical Conductivity	439	uS/cm	29/09/2021
Iron	0.110	mg/L	29/09/2021
Lead	0.0015	mg/L	29/09/2021
Magnesium	5	mg/L	29/09/2021
Manganese	0.155	mg/L	29/09/2021
Nickel	0.0057	mg/L	29/09/2021
pH	4.86	pH units	29/09/2021
Potassium	4	mg/L	29/09/2021
Selenium	<0.0002	mg/L	29/09/2021
Sodium	73	mg/L	29/09/2021
Standing Water Level	8.07	metres	29/09/2021
Vanadium	0.0003	mg/L	29/09/2021
Zinc	0.028	mg/L	29/09/2021

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**Groundwater Monitoring  
Groundwater Well – MW02**

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*EPA Identification no. 33 – Groundwater Monitoring Well 02*

<b>Name</b>	<b>Reading</b>	<b>Units</b>	<b>Date</b>
Aluminium	0.499	mg/L	28/09/2021
Ammonia	4.46	mg/L	28/09/2021
Arsenic (III)	0.0019	mg/L	28/09/2021
Arsenic (V)	<0.001	mg/L	28/09/2021
Cadmium	<0.0002	mg/L	28/09/2021
Calcium	296	mg/L	28/09/2021
Chromium (trivalent)	<0.001	mg/L	28/09/2021
Chromium (VI) compounds	0.006	mg/L	28/09/2021
Copper	<0.001	mg/L	28/09/2021
Electrical Conductivity	26100	uS/cm	28/09/2021
Iron	25.6	mg/L	28/09/2021
Lead	0.0009	mg/L	28/09/2021
Magnesium	490	mg/L	28/09/2021
Manganese	0.820	mg/L	28/09/2021
Nickel	0.0007	mg/L	28/09/2021
pH	6.40	pH units	28/09/2021
Potassium	175	mg/L	28/09/2021
Selenium	<0.002	mg/L	28/09/2021
Sodium	5140	mg/L	28/09/2021
Standing Water Level	4.10	metres	28/09/2021
Vanadium	0.0025	mg/L	28/09/2021
Zinc	0.012	mg/L	28/09/2021

**Groundwater Monitoring  
Groundwater Well – MW06**

*EPA Identification no. 34 – Groundwater Monitoring Well 06*

<b>Name</b>	<b>Reading</b>	<b>Units</b>	<b>Date</b>
Aluminium	0.091	mg/L	28/09/2021
Ammonia	2.97	mg/L	28/09/2021
Arsenic (III)	0.0020	mg/L	28/09/2021
Arsenic (V)	0.0014	mg/L	28/09/2021
Cadmium	<0.00005	mg/L	28/09/2021
Calcium	433	mg/L	28/09/2021
Chromium (trivalent)	<0.001	mg/L	28/09/2021
Chromium (VI) compounds	<0.001	mg/L	28/09/2021
Copper	<0.0005	mg/L	28/09/2021
Electrical Conductivity	20000	uS/cm	28/09/2021
Iron	11.6	mg/L	28/09/2021
Lead	0.0001	mg/L	28/09/2021
Magnesium	253	mg/L	28/09/2021
Manganese	0.342	mg/L	28/09/2021
Nickel	0.0011	mg/L	28/09/2021
pH	6.59	pH units	28/09/2021
Potassium	117	mg/L	28/09/2021
Selenium	0.0003	mg/L	28/09/2021
Sodium	3330	mg/L	28/09/2021
Standing Water Level	1.87	metres	28/09/2021
Vanadium	0.0012	mg/L	28/09/2021
Zinc	0.006	mg/L	28/09/2021

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**Groundwater Monitoring**  
**Groundwater Well – EGM/D26**

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*EPA Identification no. 35 – Groundwater Monitoring Well D26*  
Groundwater well was dry during sampling in November2021

<b>Name</b>	<b>Reading</b>	<b>Units</b>	<b>Date</b>
Aluminium	-	mg/L	-
Ammonia	-	mg/L	-
Arsenic (III)	-	mg/L	-
Arsenic (V)	-	mg/L	-
Cadmium	-	mg/L	-
Calcium	-	mg/L	-
Chromium (trivalent)	-	mg/L	-
Chromium (VI) compounds	-	mg/L	-
Copper	-	mg/L	-
Electrical Conductivity	-	uS/cm	-
Iron	-	mg/L	-
Lead	-	mg/L	-
Magnesium	-	mg/L	-
Manganese	-	mg/L	-
Nickel	-	mg/L	-
pH	-	pH units	-
Potassium	-	mg/L	-
Selenium	-	mg/L	-
Sodium	-	mg/L	-
Standing Water Level	-	metres	-
Vanadium	-	mg/L	-
Zinc	-	mg/L	-