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

Environmental Monitoring Data November 2023



Unit 1A Boiler Continuous Emission Monitoring Summary

EPA Identification no.7 - Air emissions monitoring, Boiler 1 stack discharge to air
Unit 1A Offline 5-15 November 2023

	NOx			SO_2		
	mg/Nm^3 (7% O_2)			mg/Nm^3 (7% O_2)		
	Daily Ave	Max Hourly	Min Hourly	Daily Ave	Max Hourly	Min Hourly
1 November	493	580	398	764	914	621
2 November	491	586	382	744	871	583
3 November	485	589	410	805	969	726
4 November	439	490	395	826	1192	703
5 November	-	-	-	-	-	-
6 November	-	-	-	-	-	-
7 November	-	-	-	-	-	-
8 November	-	-	-	-	-	-
9 November	-	-	-	-	-	-
10 November	-	-	-	-	-	-
11 November	-	-	-	-	-	-
12 November	-	-	-	-	-	-
13 November	-	-	-	-	-	-
14 November	-	-	-	-	-	-
15 November	-	-	-	-	-	-
16 November	554	607	439	724	892	573
17 November	562	616	436	782	993	656
18 November	524	643	381	827	950	684
19 November	512	626	347	932	1144	786
20 November	566	640	428	810	891	678
21 November	558	621	480	791	901	671
22 November	573	616	512	802	917	698
23 November	577	651	488	742	856	668
24 November	544	578	456	802	868	722
25 November	541	585	447	861	972	713
26 November	504	570	426	1040	1145	874
27 November	543	589	482	1062	1216	976
28 November	553	622	522	905	1080	767
29 November	504	609	428	1026	1170	738
30 November	481	524	434	1099	1336	952

Unit 1B Boiler Continuous Emission Monitoring Summary

EPA Identification no.7 - Air emissions monitoring, Boiler 1 stack discharge to air
Unit 1B Offline 5-15 November 2023

	NOx			SO_2		
	mg/Nm^3 (7% O_2)			mg/Nm^3 (7% O_2)		
	Daily Ave	Max Hourly	Min Hourly	Daily Ave	Max Hourly	Min Hourly
1 November	414	463	363	958	1049	853
2 November	409	468	348	937	1140	765
3 November	416	479	379	964	1091	916
4 November	393	501	352	1039	1278	885
5 November	-	-	-	-	-	-
6 November	-	-	-	-	-	-
7 November	-	-	-	-	-	-
8 November	-	-	-	-	-	-
9 November	-	-	-	-	-	-
10 November	-	-	-	-	-	-
11 November	-	-	-	-	-	-
12 November	-	-	-	-	-	-
13 November	-	-	-	-	-	-
14 November	-	-	-	-	-	-
15 November	-	-	-	-	-	-
16 November	481	538	412	1017	1111	921
17 November	475	523	400	1026	1092	954
18 November	463	533	389	1003	1060	889
19 November	454	543	333	1080	1127	1039
20 November	484	544	398	1013	1159	881
21 November	488	567	448	930	994	885
22 November	512	558	465	974	1053	884
23 November	510	568	448	909	938	876
24 November	468	491	415	954	1029	893
25 November	462	497	390	1054	1159	895
26 November	442	507	380	1181	1252	1072
27 November	441	513	394	1211	1252	1150
28 November	476	540	438	1057	1182	970
29 November	423	501	376	1136	1264	1017
30 November	429	475	392	1164	1258	1065

Unit 2A Boiler Continuous Emission Monitoring Summary

EPA Identification no. 9 - Air emissions monitoring, Boiler 2 stack discharge to air
Unit 2A Offline 1-23 November 2023

	NOx			SO_2		
	mg/Nm^3 (7% O_2)			mg/Nm^3 (7% O_2)		
	Daily Ave	Max Hourly	Min Hourly	Daily Ave	Max Hourly	Min Hourly
1 November	-	-	-	-	-	-
2 November	-	-	-	-	-	-
3 November	-	-	-	-	-	-
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	-	-	-	-	-	-
23 November	-	-	-	-	-	-
24 November	437	497	357	776	831	682
25 November	431	491	338	745	802	620
26 November	433	532	322	817	997	643
27 November	392	538	318	785	846	645
28 November	446	518	349	720	875	572
29 November	421	467	353	818	934	653
30 November	513	619	421	866	1029	688

Unit 2B Boiler Continuous Emission Monitoring Summary

EPA Identification no. 10 - Air emissions monitoring, Boiler 2 stack discharge to air
Unit 2B Offline 1-23 November 2023

	NOx			SO_2		
	mg/Nm^3 (7% O_2)			mg/Nm^3 (7% O_2)		
	Daily Ave	Max Hourly	Min Hourly	Daily Ave	Max Hourly	Min Hourly
1 November	-	-	-	-	-	-
2 November	-	-	-	-	-	-
3 November	-	-	-	-	-	-
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	-	-	-	-	-	-
23 November	-	-	-	-	-	-
24 November	480	572	364	772	1050	402
25 November	569	606	495	1014	1139	922
26 November	568	641	437	1174	1258	1106
27 November	523	652	368	1083	1294	992
28 November	567	648	496	1020	1068	955
29 November	522	642	470	1084	1165	1014
30 November	584	653	493	1116	1218	1030

Unit 3A Boiler Continuous Emission Monitoring Summary

EPA Identification no. 11 - Air emissions monitoring, Boiler 3 stack discharge to air
Unit 3A Unit Data Invalidated 8 November 2023
Unit 3A Offline 14-26 November 2023

	NOx			SO_2		
	mg/Nm³ (7% O_2)			mg/Nm³ (7% O_2)		
	Daily Ave	Max Hourly	Min Hourly	Daily Ave	Max Hourly	Min Hourly
1 November	394	457	296	824	1006	689
2 November	380	442	305	775	985	618
3 November	379	438	293	743	854	700
4 November	320	458	265	759	835	650
5 November	280	316	218	638	839	578
6 November	259	297	223	682	883	596
7 November	291	313	279	702	897	630
8 November	-	-	-	-	-	-
9 November	295	330	277	957	1077	745
10 November	350	380	327	899	996	829
11 November	368	409	345	912	988	832
12 November	353	369	342	989	1146	878
13 November	358	373	344	1033	1284	522
14 November	-	-	-	-	-	-
15 November	-	-	-	-	-	-
16 November	-	-	-	-	-	-
17 November	-	-	-	-	-	-
18 November	-	-	-	-	-	-
19 November	-	-	-	-	-	-
20 November	-	-	-	-	-	-
21 November	-	-	-	-	-	-
22 November	-	-	-	-	-	-
23 November	-	-	-	-	-	-
24 November	-	-	-	-	-	-
25 November	-	-	-	-	-	-
26 November	-	-	-	-	-	-
27 November	336	428	221	945	999	874
28 November	387	441	313	855	967	809
29 November	298	393	208	910	982	853
30 November	312	381	226	912	1009	798

Unit 3B Boiler Continuous Emission Monitoring Summary

EPA Identification no. 12 - Air emissions monitoring, Boiler 3 stack discharge to air
Unit 3B Unit Data Invalidated 8 November 2023
Unit 3B Data Invalidated 30 November 2023
Unit 3B Offline 14-26 November 2023

	NOx			SO_2		
	mg/Nm³ (7% O_2)			mg/Nm³ (7% O_2)		
	Daily Ave	Max Hourly	Min Hourly	Daily Ave	Max Hourly	Min Hourly
1 November	329	375	250	700	886	591
2 November	326	380	260	668	863	530
3 November	324	352	241	651	710	603
4 November	274	371	240	690	765	591
5 November	242	277	212	568	688	510
6 November	223	254	181	617	802	535
7 November	257	276	247	642	799	582
8 November	-	-	-	-	-	-
9 November	271	301	261	873	980	680
10 November	314	341	275	799	882	741
11 November	307	348	273	814	875	744
12 November	259	271	246	885	1013	772
13 November	295	324	242	940	1132	760
14 November	-	-	-	-	-	-
15 November	-	-	-	-	-	-
16 November	-	-	-	-	-	-
17 November	-	-	-	-	-	-
18 November	-	-	-	-	-	-
19 November	-	-	-	-	-	-
20 November	-	-	-	-	-	-
21 November	-	-	-	-	-	-
22 November	-	-	-	-	-	-
23 November	-	-	-	-	-	-
24 November	-	-	-	-	-	-
25 November	-	-	-	-	-	-
26 November	-	-	-	-	-	-
27 November	314	405	235	849	993	783
28 November	340	380	295	750	885	688
29 November	279	351	215	832	928	768
30 November	-	-	-	-	-	-

Unit 4A Boiler Continuous Emission Monitoring Summary

EPA Identification no. 13 - Air emissions monitoring, Boiler 4 stack discharge to air
Unit 4A Data Invalidated 16 November 2023

	NOx			SO_2		
	mg/Nm^3 (7% O_2)			mg/Nm^3 (7% O_2)		
	Daily Ave	Max Hourly	Min Hourly	Daily Ave	Max Hourly	Min Hourly
1 November	239	354	183	479	697	368
2 November	231	375	168	451	605	336
3 November	239	335	189	436	584	351
4 November	259	322	205	437	534	328
5 November	233	339	207	332	441	269
6 November	227	308	201	392	576	320
7 November	235	355	193	361	519	292
8 November	249	361	212	424	599	314
9 November	231	301	192	470	730	346
10 November	233	299	208	480	743	365
11 November	240	305	196	520	733	358
12 November	229	291	200	531	648	431
13 November	223	302	188	558	697	438
14 November	218	282	197	521	714	402
15 November	216	244	198	376	500	335
16 November	-	-	-	-	-	-
17 November	237	334	212	360	625	295
18 November	260	392	209	408	634	267
19 November	279	449	216	480	735	294
20 November	258	345	229	427	613	289
21 November	279	455	227	418	628	319
22 November	274	476	239	391	653	313
23 November	284	456	210	378	574	298
24 November	285	451	241	407	601	349
25 November	256	360	232	420	608	305
26 November	330	477	243	638	861	447
27 November	269	318	226	565	676	468
28 November	280	429	228	505	631	433
29 November	284	417	238	557	806	452
30 November	317	499	250	664	901	522

Unit 4B Boiler Continuous Emission Monitoring Summary

EPA Identification no. 14 – Air emissions monitoring, Boiler 4 stack discharge to air
Unit 4B Data Invalidated 16 November 2023

	NOx			SO_2		
	mg/Nm^3 (7% O_2)			mg/Nm^3 (7% O_2)		
	Daily Ave	Max Hourly	Min Hourly	Daily Ave	Max Hourly	Min Hourly
1 November	325	352	296	676	786	583
2 November	331	366	289	657	792	524
3 November	367	449	312	662	813	558
4 November	408	491	316	661	833	535
5 November	409	456	353	557	710	487
6 November	384	429	303	623	794	520
7 November	380	422	316	555	733	492
8 November	398	421	360	665	797	556
9 November	388	427	316	756	914	588
10 November	380	424	323	753	901	608
11 November	367	422	309	752	857	615
12 November	343	372	314	775	817	698
13 November	344	372	316	866	979	711
14 November	367	394	339	798	892	624
15 November	362	386	323	604	831	534
16 November	-	-	-	-	-	-
17 November	429	476	360	629	726	550
18 November	410	459	351	635	711	548
19 November	416	519	355	704	795	641
20 November	436	477	364	675	787	532
21 November	459	514	399	654	749	578
22 November	477	556	458	659	818	573
23 November	482	533	401	632	768	576
24 November	467	490	443	661	778	612
25 November	417	444	382	695	828	593
26 November	428	496	370	848	959	742
27 November	402	441	339	828	913	725
28 November	429	481	384	764	855	690
29 November	417	466	342	805	925	707
30 November	424	538	383	901	994	784

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	<0.01	mg/m^3	20	18/04/2023
Fluorine	14	mg/m^3	30	18/04/2023
Hydrogen chloride	15	mg/m^3	50	18/04/2023
Solid Particles	1.6	mg/m^3	50	18/04/2023
Sulfuric acid mist and sulfur trioxide (as SO3)	1.5	mg/m^3	100	18/04/2023
Volatile organic compounds as n-propane equivalent	0.18	mg/m^3	10	18/04/2023
Cadmium	<0.0002	mg/m^3	0.2	28/02/2023
Mercury	<0.0004	mg/m^3	0.05	28/02/2023
Solid Particles	1.7	mg/m^3	50	28/02/2023
Type 1 and 2 substances in Aggregate	<0.03	mg/m^3	0.75	28/02/2023

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

Name	Reading	Units	Licence Limit	Date
Flow Rate	310	m3/sec		18/04/2023
Moisture	5.2	%		18/04/2023
Oxygen	8.0	%		18/04/2023
Solid Particles	1.3	mg/m3		18/04/2023
Temperature	116	degC		18/04/2023
Carbon dioxide	11.9	%		18/04/2023
Chlorine	<0.01	mg/m3		18/04/2023
Fluorine	14	mg/m3		18/04/2023
Hydrogen chloride	15	mg/m3		18/04/2023
Sulfuric acid mist and sulfur trioxide (as SO3)	1.5	mg/m3		18/04/2023
Volatile organic compounds as n-propane equivalent	0.18	mg/m3		18/04/2023
Cadmium	<0.0002	mg/m3		28/02/2023
Flow Rate	230	m3/sec		28/02/2023
Mercury	0.00044	mg/m3		28/02/2023
Moisture	5.7	%		28/02/2023
Oxygen	8.3	%		28/02/2023
Solid Particles	1.5	mg/m3		28/02/2023
Temperature	110	degC		28/02/2023
Type 1 and Type 2 substances in Aggregate	<0.012	mg/m3		28/02/2023
Carbon dioxide	10.9	%		28/02/2023

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

Name	Reading	Units	Licence Limit	Date
Flow Rate	320	m3/sec		18/04/2023
Moisture	5.2	%		18/04/2023
Oxygen	7.1	%		18/04/2023
Solid Particles	1.9	mg/m3		18/04/2023
Temperature	114	degC		18/04/2023
Carbon dioxide	13.3	%		18/04/2023
Cadmium	<0.0003	mg/m3		28/02/2023
Flow Rate	220	m3/sec		28/02/2023
Mercury	<0.0003	mg/m3		28/02/2023
Moisture	5.0	%		28/02/2023
Oxygen	8.8	%		28/02/2023
Solid Particles	1.9	mg/m3		28/02/2023
Temperature	109	degC		28/02/2023
Type 1 and Type 2 substances in Aggregate	<0.041	mg/m3		28/02/2023
Carbon dioxide	11.3	%		28/02/2023

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	<0.02	mg/m^3	20	3/05/2023
Fluorine	12	mg/m^3	30	3/05/2023
Hydrogen chloride	15	mg/m^3	50	3/05/2023
Solid Particles	3.4	mg/m^3	50	4/05/2023
Sulfuric acid mist and sulfur trioxide (as SO3)	0.92	mg/m^3	100	3/05/2023
Volatile organic compounds as n-propane equivalent	<0.07	mg/m^3	10	3/05/2023
Cadmium	<0.0003	mg/m^3	0.2	28/02/2023
Mercury	0.0024	mg/m^3	0.05	28/02/2023
Solid Particles	16	mg/m3	50	28/02/2023
Type 1 and 2 substances in Aggregate	<0.06	mg/m3	0.75	28/02/2023

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

Name	Reading	Units	Licence Limit	Date
Flow Rate	240	m3/sec		3/05/2023
Moisture	5.1	%		3/05/2023
Oxygen	9.8	%		3/05/2023
Solid Particles	3.7	mg/m3		3/05/2023
Temperature	118	degC		3/05/2023
Carbon dioxide	10.1	%		3/05/2023
Chlorine	<0.02	mg/m3		3/05/2023
Fluorine	12	mg/m3		3/05/2023
Hydrogen chloride	15	mg/m3		3/05/2023
Sulfuric acid mist and sulfur trioxide (as SO3)	0.92	mg/m3		3/05/2023
Volatile organic compounds as n-propane equivalent	<0.07	mg/m3		3/05/2023
Cadmium	<0.0003	mg/m3		28/02/2023
Flow Rate	240	m3/sec		28/02/2023
Mercury	0.0023	mg/m3		28/02/2023
Moisture	5.8	%		28/02/2023
Oxygen	10.3	%		28/02/2023
Solid Particles	29	mg/m3		28/02/2023
Temperature	124	degC		28/02/2023
Type 1 and Type 2 substances in Aggregate	<0.11	mg/m3		28/02/2023
Carbon dioxide	9.5	%		28/02/2023

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

Name	Reading	Units	Licence Limit	Date
Flow Rate	240	m3/sec		4/05/2023
Moisture	5.0	%		4/05/2023
Oxygen	9.3	%		4/05/2023
Solid Particles	3.0	mg/m3		4/05/2023
Temperature	115	degC		4/05/2023
Carbon dioxide	10.8	%		4/05/2023
Cadmium	<0.0002	mg/m3		28/02/2023
Flow Rate	220	m3/sec		28/02/2023
Mercury	0.0025	mg/m3		28/02/2023
Moisture	5.9	%		28/02/2023
Oxygen	9.0	%		28/02/2023
Solid Particles	2.4	mg/m3		28/02/2023
Temperature	118	degC		28/02/2023
Type 1 and Type 2 substances in Aggregate	<0.014	mg/m3		28/02/2023
Carbon dioxide	10.3	%		28/02/2023

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	<0.01	mg/m3	20	19/04/2023
Fluorine	9.2	mg/m3	30	19/04/2023
Hydrogen chloride	19	mg/m3	50	19/04/2023
Solid Particles	20	mg/m3	50	19/04/2023
Sulfuric acid mist and sulfur trioxide (as SO3)	1.4	mg/m3	100	19/04/2023
Volatile organic compounds as n-propane equivalent	0.76	mg/m3	10	19/04/2023
Cadmium	<0.0003	mg/m3	0.2	1/03/2023
Mercury	0.00058	mg/m3	0.05	1/03/2023
Solid Particles	4	mg/m3	50	1/03/2023
Type 1 and 2 substances in Aggregate	<0.03	mg/m3	0.75	1/03/2023

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

Name	Reading	Units	Licence Limit	Date
Flow Rate	340	m3/sec		19/04/2023
Moisture	5.0	%		19/04/2023
Oxygen	7.6	%		19/04/2023
Solid Particles	32	mg/m3		19/04/2023
Temperature	118	degC		19/04/2023
Carbon dioxide	12.8	%		19/04/2023
Chlorine	<0.01	mg/m3		19/04/2023
Fluorine	9.2	mg/m3		19/04/2023
Hydrogen chloride	19	mg/m3		19/04/2023
Sulfuric acid mist and sulfur trioxide (as SO3)	1.4	mg/m3		19/04/2023
Volatile organic compounds as n-propane equivalent	0.76	mg/m3		19/04/2023
Cadmium	<0.0003	mg/m3		1/03/2023
Flow Rate	320	m3/sec		1/03/2023
Mercury	0.00052	mg/m3		1/03/2023
Moisture	3.9	%		1/03/2023
Oxygen	12.2	%		1/03/2023
Solid Particles	3	mg/m3		1/03/2023
Temperature	92	degC		1/03/2023
Type 1 and Type 2 substances in Aggregate	<0.017	mg/m3		1/03/2023
Carbon dioxide	7.6	%		1/03/2023

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

Name	Reading	Units	Licence Limit	Date
Flow Rate	310	m3/sec		19/04/2023
Moisture	6.1	%		19/04/2023
Oxygen	7.2	%		19/04/2023
Solid Particles	6.9	mg/m3		19/04/2023
Temperature	118	degC		19/04/2023
Carbon dioxide	12.8	%		19/04/2023
Cadmium	<0.0003	mg/m3		1/03/2023
Flow Rate	240	m3/sec		1/03/2023
Mercury	0.00065	mg/m3		1/03/2023
Moisture	5.6	%		1/03/2023
Oxygen	9.9	%		1/03/2023
Solid Particles	5.3	mg/m3		1/03/2023
Temperature	113	degC		1/03/2023
Type 1 and Type 2 substances in Aggregate	<0.052	mg/m3		1/03/2023
Carbon dioxide	10.1	%		1/03/2023

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	0.03	mg/m3	20	5/05/2023
Fluorine	7.4	mg/m3	30	5/05/2023
Hydrogen chloride	8.2	mg/m3	50	5/05/2023
Solid Particles	6.8	mg/m3	50	5/05/2023
Sulfuric acid mist and sulfur trioxide (as SO3)	2.0	mg/m3	100	5/05/2023
Volatile organic compounds as n-propane equivalent	<0.07	mg/m3	10	5/05/2023
Cadmium	<0.0002	mg/m3	0.2	1/03/2023
Mercury	0.0016	mg/m3	0.05	1/03/2023
Solid Particles	5.4	mg/m3	50	1/03/2023
Type 1 and 2 substances in Aggregate	<0.02	mg/m3	0.75	1/03/2023

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

Name	Reading	Units	Licence Limit	Date
Flow Rate	320	m^3/sec		5/05/2023
Moisture	4.6	%		5/05/2023
Oxygen	8.6	%		5/05/2023
Solid Particles	9.1	mg/m^3		5/05/2023
Temperature	112	degC		5/05/2023
Carbon dioxide	11.8	%		5/05/2023
Chlorine	0.03	mg/m^3		5/05/2023
Fluorine	7.4	mg/m^3		5/05/2023
Hydrogen chloride	8.2	mg/m^3		5/05/2023
Sulfuric acid mist and sulfur trioxide (as SO3)	2.0	mg/m^3		5/05/2023
Volatile organic compounds as n-propane equivalent	<0.07	mg/m^3		5/05/2023
Cadmium	<0.0003	mg/m^3		1/03/2023
Flow Rate	240	m^3/sec		1/03/2023
Mercury	0.0023	mg/m^3		1/03/2023
Moisture	5.1	%		1/03/2023
Oxygen	11	%		1/03/2023
Solid Particles	5.7	mg/m^3		1/03/2023
Temperature	114	degC		1/03/2023
Type 1 and Type 2 substances in Aggregate	<0.034	mg/m^3		1/03/2023
Carbon dioxide	8.9	%		1/03/2023

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

Name	Reading	Units	Licence Limit	Date
Flow Rate	290	m^3/sec		4/05/2023
Moisture	5.8	%		4/05/2023
Oxygen	6.7	%		4/05/2023
Solid Particles	4.3	mg/m^3		4/05/2023
Temperature	108	degC		4/05/2023
Carbon dioxide	13.4	%		4/05/2023
Cadmium	<0.0002	mg/m^3		1/03/2023
Flow Rate	260	m^3/sec		1/03/2023
Mercury	0.00099	mg/m^3		1/03/2023
Moisture	4.7	%		1/03/2023
Oxygen	8.5	%		1/03/2023
Solid Particles	5.2	mg/m^3		1/03/2023
Temperature	117	degC		1/03/2023
Type 1 and Type 2 substances in Aggregate	<0.015	mg/m^3		1/03/2023
Carbon dioxide	11	%		1/03/2023

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/m2/month		
		Ash	Combustible	Insoluble
E2	17	0.5	0.5	1.0
E4	18	0.6	0.6	1.2
E6	19	2.0	1.4	3.4
U6	20	0.9	0.5	1.4

Water Quality - Lake Monitoring LM10

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

Field Water Quality Recordings

Air Temp	Depth	Water Temp	pH	Salinity	Dissolved Oxygen		Secchi
^{0}C	m	^{0}C	pH unit	ppt	%	mg/L	m
21.04	0.5	22.71	8.56	36.8	96.4	6.6	2.25

Laboratory Analysis

Name	Reading	Units	Date
Aluminium	0.039	mg/L	2/11/2023
Ammonia	<0.025	mg/L	2/11/2023
Arsenic III	<4	mg/	2/11/2023
Arsenic V	<4	mg/L	2/11/2023
Cadmium	<0.0002	mg/L	2/11/2023
Chromium (Trivalent)	<0.001	mg/L	2/11/2023
Chromium (VI) Compounds	<0.001	mg/L	2/11/2023
Copper	0.005	mg/L	2/11/2023
Iron	0.074	mg/L	2/11/2023
Lead	<0.0002	mg/L	2/11/2023
Manganese	0.0075	mg/L	2/11/2023
Nickel	<0.0005	mg/L	2/11/2023
pH	8.18	pH units	2/11/2023
Selenium	<0.002	mg/L	2/11/2023
Total Suspended Solids	41	mg/L	2/11/2023
Vanadium	0.0022	mg/L	2/11/2023
Zinc	<0.005	mg/L	2/11/2023

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

Field Water Quality Recordings

Air Temp	Depth	Water Temp	pH	Salinity	Dissolved Oxygen		Secchi
^{0}C	m	^{0}C	pH unit	ppt	%	mg/L	m
18.23	0.5	22.42	8.46	37	102.9	6.98	2.75

Laboratory Analysis

Name	Reading	Units	Date
Aluminium	0.022	mg/L	2/11/2023
Ammonia	<0.025	mg/L	2/11/2023
Arsenic III	<4	mg/L	2/11/2023
Arsenic V	<4	mg/L	2/11/2023
Cadmium	<0.0002	mg/L	2/11/2023
Chromium (Trivalent)	<0.001	mg/L	2/11/2023
Chromium (VI) Compounds	<0.001	mg/L	2/11/2023
Copper	0.002	mg/L	2/11/2023
Iron	0.031	mg/L	2/11/2023
Lead	<0.0002	mg/L	2/11/2023
Manganese	0.007	mg/L	2/11/2023
Nickel	<0.0005	mg/L	2/11/2023
pH	8.2	pH units	2/11/2023
Selenium	<0.002	mg/L	2/11/2023
Total Suspended Solids	16	mg/L	2/11/2023
Vanadium	0.0025	mg/L	2/11/2023
Zinc	<0.005	mg/L	2/11/2023

Water Quality - Lake Monitoring LM4

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

Field Water Quality Recordings

Air Temp	Depth	Water Temp	pH	Salinity	Dissolved Oxygen		Secchi
^{0}C	m	^{0}C	pH unit	ppt	%	mg/L	m
20.09	0.5	21.0	8.34	37.5	105.8	7.34	2.75

Laboratory Analysis

Name	Reading	Units	Date
Aluminium	0.023	mg/L	2/11/2023
Ammonia	<0.025	mg/L	2/11/2023
Arsenic III	<4	mg/L	2/11/2023
Arsenic V	<4	mg/L	2/11/2023
Cadmium	<0.0002	mg/L	2/11/2023
Chromium (Trivalent)	<0.001	mg/L	2/11/2023
Chromium (VI) Compounds	<0.001	mg/L	2/11/2023
Copper	<0.001	mg/L	2/11/2023
Iron	0.033	mg/L	2/11/2023
Lead	0.0002	mg/L	2/11/2023
Manganese	0.0055	mg/L	2/11/2023
Nickel	<0.0005	mg/L	2/11/2023
pH	8.22	pH units	2/11/2023
Selenium	<0.002	mg/L	2/11/2023
Total Suspended Solids	43	mg/L	2/11/2023
Vanadium	0.0015	mg/L	2/11/2023
Zinc	<0.005	mg/L	2/11/2023

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

Field Water Quality Recordings

Air Temp	Depth	Water Temp	pH	Salinity	Dissolved Oxygen		Secchi
^{0}C	m	^{0}C	pH unit	ppt	%	mg/L	m
19.5	0.5	25.86	8.47	36.8	107.5	6.93	2.75

Laboratory Analysis

Name	Reading	Units	Date
Aluminium	0.031	mg/L	2/11/2023
Ammonia	<0.025	mg/L	2/11/2023
Arsenic III	<4	mg/L	2/11/2023
Arsenic V	<4	mg/L	2/11/2023
Cadmium	<0.0002	mg/L	2/11/2023
Chromium (Trivalent)	<0.001	mg/L	2/11/2023
Chromium (VI) Compounds	<0.001	mg/L	2/11/2023
Copper	<0.001	mg/L	2/11/2023
Iron	0.056	mg/L	2/11/2023
Lead	<0.0002	mg/L	2/11/2023
Manganese	0.0071	mg/L	2/11/2023
Nickel	<0.0005	mg/L	2/11/2023
pH	8.18	pH units	2/11/2023
Selenium	<0.002	mg/L	2/11/2023
Total Suspended Solids	22	mg/L	2/11/2023
Vanadium	0.0021	mg/L	2/11/2023
Zinc	<0.005	mg/L	2/11/2023

Eraring Ash Dam Quality Monitoring

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

Name	Reading	Units	Licence Limit	Date
Aluminium	0.098	mg/L	-	2/11/23
Ammonia	0.5	mg/L	-	2/11/23
Arsenic III	<0.5	mg/L	-	2/11/23
Arsenic V	7.5	mg/L	-	2/11/23
Cadmium	0.00017	mg/L	-	2/11/23
Chromium (Trivalent)	<0.001	mg/L	-	2/11/23
Chromium (VI) Compounds	<0.01	mg/L	-	2/11/23
Copper	0.0035	mg/L	-	2/11/23
Iron	0.109	mg/L	-	2/11/23
Lead	0.0002	mg/L	-	2/11/23
Manganese	0.028	mg/L	-	2/11/23
Nickel	0.0035	mg/L	-	2/11/23
Nitrite and Nitrate as N	5.35	mg/L	-	2/11/23
Nitrogen	6.4	mg/L	-	2/11/23
pH	8.39	pH units	-	2/11/23
Phosphorus as P	1.01	mg/L	-	2/11/23
Reactive Phosphorus as P	0.94	mg/L	-	2/11/23
Selenium	0.0305	mg/L	-	2/11/23
Total Kjeldahl Nitrogen	6.4	mg/L	-	2/11/23
Total Suspended Solids	26	mg/L	-	2/11/23
Vanadium	0.0493	mg/L	-	2/11/23
Zinc	0.008	mg/L	-	2/11/23

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	0.074	mg/L	-	2/11/23
Ammonia	<0.005	mg/L	-	2/11/23
Arsenic III	<4	mg/L	-	2/11/23
Arsenic V	<4	mg/L	-	2/11/23
Cadmium	<0.0002	mg/L	-	2/11/23
Chromium (Trivalent)	<0.001	mg/L	-	2/11/23
Chromium (VI) Compounds	<0.01	mg/L	-	2/11/23
Copper	0.001	mg/L	-	2/11/23
Iron	0.12	mg/L	-	2/11/23
Lead	<0.0002	mg/L	-	2/11/23
Manganese	0.008	mg/L	-	2/11/23
Nickel	<0.0005	mg/L	-	2/11/23
pH	8.15	pH units	-	2/11/23
Selenium	0.001	mg/L	-	2/11/23
Total Suspended Solids	30	mg/L	-	2/11/23
Vanadium	0.0025	mg/L	-	2/11/23
Zinc	<0.005	mg/L	-	2/11/23
Dissolved Oxygen	7.69	mg/L	-	2/11/23
Field Temperature	24.8	degC	-	2/11/23
Salinity	31.3	ppt	-	2/11/23
Secchi Disk	2.75	m	-	2/11/23
Temperature – Average	24.30	deg C	-	2/11/23
Temperature – Minimum	19.70	deg C	-	2/11/23
Temperature - Maximum	27.52	deg C	-	2/11/23

Eraring Cooling Water Outlet Canal

EPA Identification no. 36 - Cooling water outlet canal to Myuna Bay

Name	Reading	Units	Licence Limit	Date
Copper	0.0015	mg/L	0.005	2/11/23
Iron	0.246	mg/L	0.3	2/11/23
Selenium	<0.001	mg/L	0.002	2/11/23

Eraring Cooling Water Outlet Canal

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

Name	Reading	Units	Licence Limit	Date
Temperature – Average	30.34	deg C	37.5	2/11/23
Temperature – Minimum	25.52	deg C	37.5	2/11/23
Temperature - Maximum	35.61	deg C	37.5	2/11/23

Eraring Cooling Water Outlet Canal

EPA Identification no. 25 – Discharge from Ash Dam

Name	Reading	Units	Licence Limit	Date
Maximum Daily Discharge from Ash Dam	8.12	ML	150	2/11/23
Monthly Discharge from Ash Dam	100.86	ML	-	2/11/23

Emergency Discharge – Toe Drain Pond

EPA Identification no. 24 - Emergency discharge to toe drain collection pond.
No Discharge during October 2023, background sample only

Name	Reading	Units	Licence Limit	Date
Aluminium	0.054	mg/L	-	2/11/23
Ammonia	2.86	mg/L	-	2/11/23
Arsenic III	2.1	mg/L	-	2/11/23
Arsenic V	0.6	mg/L	-	2/11/23
Cadmium	<0.00005	mg/L	-	2/11/23
Chromium (Trivalent)	<0.001	mg/L	-	2/11/23
Chromium (VI) Compounds	<0.01	mg/L	-	2/11/23
Copper	0.0039	mg/L	-	2/11/23
Iron	8.16	mg/L	-	2/11/23
Lead	0.0005	mg/L	-	2/11/23
Manganese	0.971	mg/L	-	2/11/23
Nickel	0.003	mg/L	-	2/11/23
Nitrite and Nitrate as N	0.349	mg/L	-	2/11/23
Nitrogen	2.45	mg/L	-	2/11/23
pH	6.99	pH units	6-9.5	2/11/23
Phosphorus as P	0.4	mg/L	-	2/11/23
Reactive Phosphorus as P	0.003	mg/L	-	2/11/23
Selenium	0.0003	mg/L	-	2/11/23
Total Kjeldahl Nitrogen	2.1	mg/L	-	2/11/23
Total Suspended Solids	39	mg/L	50	2/11/23
Vanadium	0.0015	mg/L	-	2/11/23
Zinc	0.032	mg/L	-	2/11/23

MR217

EPA Identification no. 23 - Emergency discharge from ash dam outlet at culvert

MR217 did not discharge throughout November 2023 and there was insufficient water to sample during routine sampling in November 2023

Name	Reading	Units	Licence Limit	Date
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 Identification no. 32 – Groundwater Monitoring Well 01

Name	Reading	Units	Date
Aluminium	0.129	mg/L	18/09/2023
Ammonia	<0.01	mg/L	18/09/2023
Arsenic (III)	<0.0005	mg/L	18/09/2023
Arsenic (V)	<0.0005	mg/L	18/09/2023
Cadmium	<0.00005	mg/L	18/09/2023
Calcium	1	mg/L	18/09/2023
Chromium (trivalent)	<0.001	mg/L	18/09/2023
Chromium (VI) compounds	<0.01	mg/L	18/09/2023
Copper	0.0007	mg/L	18/09/2023
Electrical Conductivity	362	uS/cm	18/09/2023
Iron	0.091	mg/L	18/09/2023
Lead	0.0004	mg/L	18/09/2023
Magnesium	4	mg/L	18/09/2023
Manganese	0.107	mg/L	18/09/2023
Nickel	0.0040	mg/L	18/09/2023
pH	4.86	pH units	18/09/2023
Potassium	4	mg/L	18/09/2023
Selenium	<0.0002	mg/L	18/09/2023
Sodium	58	mg/L	18/09/2023
Standing Water Level	9.30	metres	18/09/2023
Vanadium	0.0002	mg/L	18/09/2023
Zinc	0.022	mg/L	18/09/2023

Groundwater Monitoring
Groundwater Well – MW02

EPA Identification no. 33 – Groundwater Monitoring Well 02

Name	Reading	Units	Date
Aluminium	0.508	mg/L	20/09/2023
Ammonia	4.06	mg/L	20/09/2023
Arsenic (III)	0.0014	mg/L	20/09/2023
Arsenic (V)	<0.0005	mg/L	20/09/2023
Cadmium	0.00007	mg/L	20/09/2023
Calcium	355	mg/L	20/09/2023
Chromium (trivalent)	<0.001	mg/L	20/09/2023
Chromium (VI) compounds	<0.01	mg/L	20/09/2023
Copper	0.0021	mg/L	20/09/2023
Electrical Conductivity	16900	uS/cm	20/09/2023
Iron	8.58	mg/L	20/09/2023
Lead	0.0016	mg/L	20/09/2023
Magnesium	251	mg/L	20/09/2023
Manganese	1.18	mg/L	20/09/2023
Nickel	0.0035	mg/L	20/09/2023
pH	6.49	pH units	20/09/2023
Potassium	121	mg/L	20/09/2023
Selenium	0.0006	mg/L	20/09/2023
Sodium	2860	mg/L	20/09/2023
Standing Water Level	3.955	metres	20/09/2023
Vanadium	0.0034	mg/L	20/09/2023
Zinc	0.059	mg/L	20/09/2023

Groundwater Monitoring
Groundwater Well – MW06

EPA Identification no. 34 – Groundwater Monitoring Well 06

Name	Reading	Units	Date
Aluminum	0.020	mg/L	18/09/2023
Ammonia	3.36	mg/L	18/09/2023
Arsenic (III)	0.0045	mg/L	18/09/2023
Arsenic (V)	0.0006	mg/L	18/09/2023
Cadmium	<0.00005	mg/L	18/09/2023
Calcium	489	mg/L	18/09/2023
Chromium (trivalent)	<0.001	mg/L	18/09/2023
Chromium (VI) compounds	<0.01	mg/L	18/09/2023
Copper	0.0007	mg/L	18/09/2023
Electrical Conductivity	19800	uS/cm	18/09/2023
Iron	14.6	mg/L	18/09/2023
Lead	0.0002	mg/L	18/09/2023
Magnesium	279	mg/L	18/09/2023
Manganese	0.390	mg/L	18/09/2023
Nickel	0.0006	mg/L	18/09/2023
pH	6.53	pH units	18/09/2023
Potassium	122	mg/L	18/09/2023
Selenium	0.0005	mg/L	18/09/2023
Sodium	3390	mg/L	18/09/2023
Standing Water Level	1.90	metres	18/09/2023
Vanadium	0.0013	mg/L	18/09/2023
Zinc	0.006	mg/L	18/09/2023

Groundwater Monitoring
Groundwater Well – EGM/D26

EPA Identification no. 35 – Groundwater Monitoring Well D26
Groundwater well was dry during sampling in September 2023

Name	Reading	Units	Date
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	-