

National Ceramic Industries Australia Limited

Racecourse Road Rutherford NSW 2320

Environment Protection Licence Number 11956

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2019 Annual Emissions Monitoring Summary

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Monitoring Location	Date Sampled	Pollutant	Measured Level	EPL Limit
EPL Point 1 (Clay Preparation)	16 July 2019	Dry gas density (kg/m <sup>3</sup> )	1.29	-
		Moisture content (%)	0.2	-
		Molecular weight (g/mole)	28.8	-
		Solid Particles (mg/m <sup>3</sup> )	5.2	20
		Temperature degrees (°C)	23	-
		Velocity (m/s)	16	-
		Volumetric flowrate (m <sup>3</sup> /s)	12	-
EPL Point 3 (Pressing and Drying)	23 July 2019	Dry gas density (kg/m <sup>3</sup> )	1.29	-
		Moisture content (%)	0.2	-
		Molecular weight (g/mole)	28.8	-
		Solid Particles (mg/m <sup>3</sup> )	4.6	20
		Temperature degrees (°C)	21	-
		Velocity (m/s)	15	-
		Volumetric flowrate (m <sup>3</sup> /s)	11	-
EPL Point 5 (Dryer 1)	18 July 2019	Dry gas density (kg/m <sup>3</sup> )	1.29	-
		Moisture content (%)	5.8	-
		Molecular weight (g/mole)	28.8	-
		Solid Particles (mg/m <sup>3</sup> )	7.2	20
		Temperature degrees (°C)	99	-
		Velocity (m/s)	11	-
		Volumetric flowrate (m <sup>3</sup> /s)	1.5	-
EPL Point 6 (Dryer 2)	18 July 2019	Dry gas density (kg/m <sup>3</sup> )	1.29	-
		Moisture content (%)	5.8	-
		Molecular weight (g/mole)	28.8	-
		Solid Particles (mg/m <sup>3</sup> )	14	20
		Temperature degrees (°C)	114	-
		Velocity (m/s)	11	-
		Volumetric flowrate (m <sup>3</sup> /s)	1.4	-
EPL Point 9 (Glaze Line)	17 July 2019	Dry gas density (kg/m <sup>3</sup> )	1.29	-
		Moisture content (%)	0.5	-
		Molecular weight (g/mole)	28.8	-
		Solid Particles (mg/m <sup>3</sup> )	19	20
		Temperature degrees (°C)	26	-
		Velocity (m/s)	13	-
		Volumetric flowrate (m <sup>3</sup> /s)	9.7	-
EPL Point 10 (Selection Line)	17 July 2019	Dry gas density (kg/m <sup>3</sup> )	1.29	-
		Moisture content (%)	0	-
		Molecular weight (g/mole)	28.8	-
		Solid Particles (mg/m <sup>3</sup> )	1.5	20
		Temperature degrees (°C)	26	-
		Velocity (m/s)	5.9	-
		Volumetric flowrate (m <sup>3</sup> /s)	1	-
EPL Point 12 (Spray Dryer)	23 July 2019	Dry gas density (kg/m <sup>3</sup> )	1.29	-
		Moisture content (%)	15	-
		Molecular weight (g/mole)	28.8	-
		Solid Particles (mg/m <sup>3</sup> )	1.9	20
		Temperature degrees (°C)	88	-
		Velocity (m/s)	21	-
		Volumetric flowrate (m <sup>3</sup> /s)	21	-

Monitoring Location		Pollutant	Measured Level	EPL Limit
EPL Point 14 (Kiln 1)	22 July 2019	Cadmium (mg/m <sup>3</sup> )	0.0082	0.1
		Carbon dioxide (percent)	2.2	-
		Dry gas density (kg/m <sup>3</sup> )	1.3	-
		Hazardous substances (mg/m <sup>3</sup> )	0.074	1
		Hydrogen Fluoride (mg/m <sup>3</sup> )	8.1	5
		Mercury (mg/m <sup>3</sup> )	0.0035	0.1
		Moisture content (%)	4.55	-
		Molecular weight (g/mole)	29	-
		Nitrogen Oxides at 18%O <sub>2</sub> (mg/m <sup>3</sup> )	40	100
		Oxygen (percent)	17	-
		Solid Particles @ 18% O <sub>2</sub> (mg/m <sup>3</sup> )	8.3	20
		H <sub>2</sub> SO <sub>4</sub> & SO <sub>3</sub> (as SO <sub>3</sub> ) (mg/m <sup>3</sup> )	19	100
		Velocity (m/s)	19	-
Volumetric flowrate (m <sup>3</sup> /s)	7.65	-		
EPL Point 15 (Kiln 2)	23 July 2019	Cadmium (mg/m <sup>3</sup> )	0.0038	0.1
		Carbon dioxide (percent)	2	-
		Dry gas density (kg/m <sup>3</sup> )	1.3	-
		Hazardous substances (mg/m <sup>3</sup> )	0.071	1
		Hydrogen Fluoride (mg/m <sup>3</sup> )	1.49	5
		Mercury (mg/m <sup>3</sup> )	0.0034	0.1
		Moisture content (%)	3.6	-
		Molecular weight (g/mole)	29	-
		Nitrogen Oxides at 18%O <sub>2</sub> (mg/m <sup>3</sup> )	38	100
		Oxygen (percent)	17.2	-
		Solid Particles @ 18% O <sub>2</sub> (mg/m <sup>3</sup> )	14	20
		H <sub>2</sub> SO <sub>4</sub> & SO <sub>3</sub> (as SO <sub>3</sub> ) (mg/m <sup>3</sup> )	7.6	100
		Velocity (m/s)	16.5	-
Volumetric flowrate (m <sup>3</sup> /s)	7.15	-		
EPL Point 18 (Hot Air Cooler 1)	15 July 2019	Dry gas density (kg/m <sup>3</sup> )	1.29	-
		Moisture content (%)	1.1	-
		Molecular weight (g/mole)	28.8	-
		Solid Particles (mg/m <sup>3</sup> )	3.9	5
		Temperature degrees (°C)	138	-
		Velocity (m/s)	6.3	-
Volumetric flowrate (m <sup>3</sup> /s)	3.3	-		
EPL Point 19 (Hot Air Cooler 2)	15 July 2019	Dry gas density (kg/m <sup>3</sup> )	1.29	-
		Moisture content (%)	0.7	-
		Molecular weight (g/mole)	28.8	-
		Solid Particles (mg/m <sup>3</sup> )	3.6	5
		Temperature degrees (°C)	109	-
		Velocity (m/s)	4.2	-
Volumetric flowrate (m <sup>3</sup> /s)	2.4	-		