EPA Point 4 - Plant 1 – Horsley Park

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Date |   |   | 25/11/2019 | 23/01/2020 | 21/04/2020 | 11/8/2020 | 6/10/2020 |
| Analytes | Units | Limits |   |   |   |  |  |
| Total Solid Particles (TSP)  | mg/m3 | 100 | 7 | 41 | 17 | 22 | 13 |
| Coarse Particulates | mg/m3 | N.A | 0.59 | 25 | 0.41 | 1.8 | 0.76 |
| Fine Particulates (PM10) | mg/m3 | N.A | 6.4 | 17 | 16 | 20 | 12 |
| Sulphur Oxides (SOX) SO2+SO3 | mg/m3 | N.A | 112.6 | 262.2 | 241.9 | 214.6 | 191.4 |
| Nitrogen Oxides (NOX) | mg/m3 | 2000 | 73 | 68 | 79 | 50 | 56 |
| Hydrogen Fluroide (HF)  | mg/m3 | 50 | 85 | 81 | 120 | 87 | 64 |
| Cadmium | mg/m3 | N.A | 0.0003 | 0.0003 | <0.0002 | 0.0003 | 0.0005 |
| Dry Gas Density | kg/m3 | N.A | 1.31 | 1.31 | 1.31 | 1.31 | 1.31 |
| Fluorine  | mg/m3 | N.A | 75 | 77 | 110 | 83 | 61 |
| Hydrogen Chloride | mg/m3 | N.A | 67 | 99 | 93 | 51 | 27 |
| Hydrogen Sulfide  | µg/m3 | N.A | 0.01 | 0.01 | 0.01 | 1.4 | 9.1 |
| Mercury  | mg/m3 | N.A | 0.0077 | 0.0071 | 0.017 | 0.00048 | 0.01 |
| Moisture  | % | N.A | 5.8 | 7.2 | 7.93 | 7.167 | 7.3 |
| Molecular weight of stack gases | g/g-mole | N.A | 29.3 | 29.3 | 29.30 | 29.40 | 29.3 |
| Oxygen  | % | N.A | 16.9 | 15.5 | 15.6 | 15.6 | 16.1 |
| Sulfuric acid mist (SO3) | mg/m3 | N.A | 2.6 | 2.2 | 1.9 | 4.6 | 1.4 |
| Sulphur dioxide (SO2)  | mg/m3 | N.A | 110 | 260 | 240 | 210 | 190 |
| temperature | degress Celcius | N.A | 216 | 217.00 | 219.33 | 202.67 | 214 |
| Type 1 Substances  | mg/m3 | N.A | 0.017 | 0.015 | 0.024 | 0.0071 | 0.02 |
| Type 2 Substances  | mg/m3 | N.A | 0.037 | 0.063 | 0.028 | 0.012 | 0.038 |
| Velocity | m/sec | N.A | 13 | 9.00 | 11 | 11.00 | 12 |
| Volatile Organic Compounds as n-propane equivalent  | mg/m3 | N.A | 5.9 | 3.3 | 4 | 2.7 | 9.1 |
| Volumetric Flow rates  | m3/sec | N.A | 14 | 9.17 | 11.33 | 12.00 | 12.67 |

EPA Point 5 - Plant 2 – Horsley Park

**Site not in operation**

EPA Point 6 - Plant 3 – Horsley Park (Swindell)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Date |   |   | 17.12.20 | 22.1.2020 |
| Analytes | Units | Limits |   |   |
| Total Solid Particles (TSP)  | mg/m3 | 100 | 33 | 20 |
| Coarse Particulates | mg/m3 | N.A | 1.8 | 1.5 |
| Fine Particulates (PM10) | mg/m3 | N.A | 32 | 18 |
| Sulphur Oxides (SOX) SO2+SO3 | mg/m3 | N.A | 251 | 98.6 |
| Nitrogen Oxides (NOX) | mg/m3 | 2000 | 66 | 41 |
| Hydrogen Fluroide (HF)  | mg/m3 | 50 | 37 | 37 |

Kiln is currently not operational

EPA Point 7 - Plant 3 Horsley Park (Ceric)

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Date |   |   | 17.12.19-18.12.19 | 17/2/20-18/2/20 | 22/04/2020 | 15/06/2020 | **15/06/2020** | **29/09/2020** |
| Analytes | Units | Limits |   |  |  |  |  |  |
| Total Solid Particles (TSP)  | mg/m3 | 100 | 27 | 39 | 31 | 52 | 52 | 50 |
| Coarse Particulates | mg/m3 | N.A | 5.5 | 28 | 17 | 25 | 25 | 25 |
| Fine Particulates (PM10) | mg/m3 | N.A | 21 | 12 | 13 | 27 | 27 | 25 |
| Sulphur Oxides (SOX) SO2+SO3 | mg/m3 | N.A | 171.8 | 110.2 | 55.3 | 132.6 | 132.6 | 60.75 |
| Nitrogen Oxides (NOX) | mg/m3 | 2000 | 110 | 73 | 63 | 98 | 98 | 79 |
| Hydrogen Fluroide (HF)  | mg/m3 | 50 | 22 | 4.2 | 2 | 2.8 | 2.8 | 3.9 |
| Cadmium | mg/m3 | N.A | 0.0003 | 0.0004 | 0.0005 | 0.0003 | 0.0003 | 0.0005 |
| Dioxins and Furans  | ng/m3 | N.A | 1.1 | 1.2 | 0.9 | Not required  | Not required | Not required |
| Dry Gas Density | kg/m3 | N.A | 1.31 | 1.3 | 1.30 | 1.31 | 1.31 | 1.30 |
| Fluorine  | mg/m3 | N.A | 21 | 3.9 | 1.9 | 1.4 | 1.4 | 3.7 |
| Hydrogen Chloride | mg/m3 | N.A | 19 | 51 | 24 | 100 | 100 | 39 |
| Hydrogen Sulfide  | µg/m3 | N.A | 0.02 | 0.01 | 0.0049 | 0.086 | 0.086 | 0.009 |
| Mercury  | mg/m3 | N.A | 0.0057 | 0.0041 | 0.0056 | 0.0032 | 0.0032 | 0.015 |
| Moisture  | % | N.A | 6.125 | 7.53 | 6.4 | 6.6 | 6.6 | 6.43 |
| Molecular weight of stack gases | g/g-mole | N.A | 29.30 | 29.2 | 29.2 | 29.40 | 29.40 | 29.2 |
| Oxygen  | % | N.A | 15.3 | 17 | 17.2 | 16.3 | 16.3 | 17.4 |
| Sulfuric acid mist (SO3) | mg/m3 | N.A | 1.8 | 0.2 | 1.3 | 2.6 | 2.6 | 0.74 |
| Sulphur dioxide (SO2)  | mg/m3 | N.A | 170 | 110 | 54 | 130 | 130 | 60 |
| temperature |  °Celcius | N.A | 171.25 | 192.25 | 147.5 | 149.00 | 149.00 | 161.75 |
| Type 1 Substances  | mg/m3 | N.A | 0.013 | 0.011 | 0.016 | 0.0098 | 0.0098 | 0.021 |
| Type 2 Substances  | mg/m3 | N.A | 0.047 | 0.038 | 0.073 | 0.031 | 14.67 | 15 |
| Velocity | m/sec | N.A | 19 | 13 | 13.25 | 14.67 | 1.4 | 1 |
| Volatile Organic Compounds as n-propane equivalent  | mg/m3 | N.A | 2.5 | 0.45 | 0.61 | 1.4 | 22.67 | 23 |
| Volumetric Flow rates  | m3/sec | N.A | 17.75 | 17.75 | 20.25 | 22.67 | 14.67 | 15 |