|  |  |
| --- | --- |
| **Environmental Protection Monitoring Data** | Air Emissions |
| **Period** | 2017 Testing |
| **PPG Environmental Protection License** | 1996 |
| **PPG License on the EPA Website** | [Link Here](https://apps.epa.nsw.gov.au/prpoeoapp/Detail.aspx?instid=1996&id=1996&option=licence&searchrange=general&range=POEO%20licence&prp=no&status=Issued) |
| **Site Address** | 9 Birmingham Avenue Villawood NSW 2163 |
| **Postal Address** | PO Box 204 Chester Hill NSW 2162 |
| **Australian Head Office**  | 14 McNAUGHTON Rd CLAYTON VIC 3168 PH (03) 92634942 |

2 Limit Conditions

L2 Load limits

L2.1 The actual load of an assessable pollutant discharged from the premises during the reporting period must not exceed the load limit specified for the assessable pollutant in the table below.

L2.2 The actual load of an assessable pollutant must be calculated in accordance with the relevant load calculation protocol.

|  |  |
| --- | --- |
| **Assessable Pollutant** | **Load limit (kg)** |
| Benzene (Air) |  |
| Fine Particulates (Air) | 161.00 |
| Nitrogen Oxides - Summer (Air) |  |
| Nitrogen Oxides (Air) |  |
| Volatile organic compounds - Summer (Air) | 7,850.00 |
| Volatile organic compounds (Air) | 35,000.00 |

4 Monitoring and Recording Conditions

M2 Testing methods - load limits

Note: Division 3 of the Protection of the Environment Operations (General) Regulation 2009 requires that monitoring of actual loads of assessable pollutants listed in L2.2 must be carried out in accordance with the relevant load calculation protocol set out for the fee-based activity classification listed in the Administrative Conditions of this licence.



Figure 1: Sampling Locations

DP = Discharge Point

**Bag Splitter Baghouse Stack – DP3**

|  |  |
| --- | --- |
| **Date** | 22/08/17 |
| **Report** | R003738 |
| **Stack ID** | Bag Splitter Baghouse Stack – DP3 |
| **Sampling Plane Details** |  |
| Sampling plane dimensions  | 730 x 355 mm |
| Sampling plane area | 0.259 m² |
| Sampling port size, number & depth | 4" BSP (x1) |
| Duct orientation & shape | Vertical | Rectangular |
| Downstream disturbance | Exit | 1.5 D |
| Upstream disturbance | Bend | 0.5 D |
| No. traverses & points sampled | 1 | 3 |

|  |  |  |  |
| --- | --- | --- | --- |
| **Stack Parameters**Moisture content, %v/vGas molecular weight, g/g mole Gas density at STP, kg/m³ | 1.428.8 (wet)1.29 (wet) |  | 29.0 (dry)1.29 (dry) |
| **Gas Flow Parameters** |  | Results PM 10 |  |
| Measurement time (hhmm) |  | 0955 & 1215 |  |
| Temperature, °C |  | 20 |  |
| Temperature, K |  | 293 |  |
| Velocity at sampling plane, m/s |  | 14 |  |
| Volumetric flow rate, discharge, m³/s |  | 3.7 |  |
| Volumetric flow rate (wet STP), m³/s |  | 3.5 |  |
| Volumetric flow rate (dry STP), m³/s |  | 3.4 |  |
| Mass flow rate (wet basis), kg/hour |  | 16000 |  |
| Sampling time, min |  | 120 |  |
| Isokinetic rate, % |  | 90 |  |
| Velocity difference, % |  | -4 |  |

|  |  |
| --- | --- |
| Isokinetic | Results |
| Sampling time | 1009-1210 (PM10) |
|  | Concentration | Mass Rate |
|  | mg/m³ | g/min |
| Particulate matter <10µm | <1.3 | <0.28 |
| 50 cut size, 10µm | 10.4 |

**Bulk Storage Baghouse Stack – DP5**

|  |  |
| --- | --- |
| **Date** | 22/08/17 |
| **Report** | R003738 |
| **Stack ID** | Bulk Storage Baghouse Stack – DP5 |
| **Sampling Plane Details** |  |
| Sampling plane dimensions  | 610 x 420 mm |
| Sampling plane area | 0.256 m² |
| Sampling port size, number & depth | 4" BSP (x2) |
| Duct orientation & shape | Vertical | Rectangular |
| Downstream disturbance | Exit | 0.8 D |
| Upstream disturbance | Bend | 1 D |
| No. traverses & points sampled | 2 | 6 |

|  |  |  |  |
| --- | --- | --- | --- |
| **Stack Parameters**Moisture content, %v/vGas molecular weight, g/g mole Gas density at STP, kg/m³ | 28.8 (wet)1.29 (wet) | 1.2 | 29.0 (dry)1.29 (dry) |
| **Gas Flow Parameters** |  | ResultsPM 10 |  |
| Temperature, °C |  | 17 |  |
| Velocity at sampling plane, m/s |  | 14 |  |
| Volumetric flow rate, discharge, m³/s |  | 3.5 |  |
| Volumetric flow rate (wet STP), m³/s |  | 3.4 |  |
| Volumetric flow rate (dry STP), m³/s |  | 3.3 |  |
| Mass flow rate (wet basis), kg/hour |  | 16000 |  |
| Velocity difference, % |  | -9 |  |
| Sampling time, min |  | 60 |  |
| Isokinetic rate, % |  | 103 |  |

|  |  |
| --- | --- |
| Isokinetic | Results |
| Sampling time | 0853-0955 (PM10) |
|  | Concentration | Mass Rate |
|  | mg/m³ | g/min |
| Particulate matter <10µm | 4 | 0.81 |
| 50 cut size, 10µm | 9.5 |

**Laneway Baghouse Stack – DP6**

|  |  |
| --- | --- |
| **Date** | 22/08/17 |
| **Report** | R003738 |
| **Stack ID** | Laneway Baghouse Stack – DP6 |
| **Sampling Plane Details** |  |
| Sampling plane dimensions  | 600 x 450 mm |
| Sampling plane area | 0.27 m² |
| Sampling port size, number & depth | 4" BSP (x2) |
| Duct orientation & shape | Vertical | Rectangular |
| Downstream disturbance | Exit | 3.5 D |
| Upstream disturbance | Bend | 2 D |
| No. traverses & points sampled | 2 | 6 |

|  |  |  |  |
| --- | --- | --- | --- |
| **Stack Parameters**Moisture content, %v/vGas molecular weight, g/g mole Gas density at STP, kg/m³ | 1.428.8 (wet)1.29 (wet) |  | 29.0 (dry)1.29 (dry) |
| **Gas Flow Parameters** |  | ResultsPM 10 |  |
| Measurement time (hhmm) |  | 0935 & 1145 |  |
| Temperature, °C |  | 20 |  |
| Temperature, K |  | 293 |  |
| Velocity at sampling plane, m/s |  | 12 |  |
| Volumetric flow rate, discharge, m³/s |  | 3.2 |  |
| Volumetric flow rate (wet STP), m³/s |  | 2.9 |  |
| Volumetric flow rate (dry STP), m³/s |  | 2.9 |  |
| Mass flow rate (wet basis), kg/hour |  | 14000 |  |
| Sampling time, min |  | 60 |  |
| Isokinetic rate, % |  | 86 |  |
| Velocity difference, % |  | 6 |  |

|  |  |
| --- | --- |
| Isokinetic | Results |
| Sampling time | 1205-1307 (PM10) |
|  | Concentration | Mass Rate |
|  | mg/m³ | g/min |
| Particulate matter <10µm | <0.6 | <0.1 |