

TABLE 1
The Vale Cremator & Abatement System
Emissions Monitoring November 2020
Total Particulate Matter & Hydrogen Chloride Sampling

| | Test H1 18th November 2020 12:32-13:32 | Test H2 18th November 2020 14:09-15:09 | Test H3 13th November 2020 15:42-16:42 | Average | Requirement to Site Permit & PG5/2 (2012) |
|--|--|--|--|--------------|--|
| Total Particulate Matter - mg/Nm ³ c. | 3.17 ± 3.43 | 10.00 ± 2.34 | 4.53 ± 4.66 | 5.90 | <20 |
| Hydrogen Chloride - mg/Nm ³ c. | 0.54 ± 0.44 | 0.02 ± 0.29 | 0.58 ± 0.59 | 0.38 | <30 |
| Carbon Monoxide - mg/Nm ³ c. | 0.77 ± 0.04 | 0.01 ± 0.01 | 16.81 ± 0.01 | 5.86 | <100 |
| Carbon Monoxide First 30 mins - mg/Nm ³ c. | 1.27 ± 0.06 | 0.00 ± 0.01 | 10.05 ± 0.01 | 3.77 | <100 |
| Carbon Monoxide Second 30 mins - mg/Nm ³ c. | 0.24 ± 0.01 | 0.01 ± 0.01 | 23.26 ± 0.01 | 7.84 | <100 |
| Organic Compounds - mg/Nm ³ c. | 0.00 ± 0.01 | 0.00 ± 0.01 | 0.00 ± 0.01 | 0.00 | <20 |
| Flue Oxygen - %v/v dry | 16.56 ± 0.10 | 15.80 ± 0.10 | 17.64 ± 0.10 | 16.67 | |
| Flue Moisture - %v/v | 3.1 ± 0.3 | 5.6 ± 0.6 | 4.3 ± 0.4 | 4.3 | |
| - %w/w | 2.0 ± 0.2 | 3.6 ± 0.4 | 2.7 ± 0.3 | 2.7 | |
| Flue Temperature - Deg C | 144 ± 2 | 140 ± 2 | 138 ± 2 | 141 | |
| Volumetric Flow - Nm ³ /h dry | 1577 ± 32 | 1784 ± 36 | 1432 ± 29 | 1598 | |

Note 1: All emissions as concentration levels are given as mg/Nm³ corrected to 11%v/v oxygen and dry gas

Note 2: All uncertainties (±) are calculated to a 95% confidence interval

TABLE 2
The Vale Cremator & Abatement System Outlet
Emissions Monitoring 18th November 2020
Mercury Sampling

| | | Hg Test | Requirement to PG5/2 (2012) |
|------------------|---------------------------------------|---------------------------------|-----------------------------|
| | | 18 November 2020 08:04-12:17 | |
| Mercury | - $\mu\text{g}/\text{Nm}^3\text{c}$. | 16.41 \pm 0.90 | <50 |
| Flue Oxygen | - %v/v dry | 15.29 \pm 0.10 | |
| Flue Moisture | - %v/v | 3.2 \pm 0.3 | |
| | - %w/w | 2.0 \pm 0.2 | |
| Flue Temperature | - Deg C | 130 \pm 2 | |
| Volumetric Flow | - Nm^3/h dry | 1693 \pm 34 | |

Note 1: All emissions as concentration levels are given as $\mu\text{g}/\text{Nm}^3$ or mg/Nm^3 corrected to 11%v/v oxygen and dry gas

Note 2: All uncertainties (\pm) are calculated to a 95% confidence interval