Harlow Council

Environmental Permitting Regulations 2016

Regulated Facility Inspection

Inspection Report - The following information provides a formal record of the following inspection:

Inspection Type:	Check Inspection	**Site Reference:**	EPR/A2/001
Site Name &Address:	O-I manufacturing UK Edinburgh Way Harlow Essex CM20 2UG	**Date Inspected:**	6th November 2018
		Person Seen:	Raj Parmar
		Inspected By:	Fay Rushby Steven Adams

1. Spot samples

Emissions testing was undertaken on 11/12th April 2018 and 22-23rd August 2018, with the furnace working under normal operating conditions. The emissions monitoring results indicate that there are some emission limits compliance issues as follows:

11/12th April 2018 (a re-test from 2017)

Parameter	Emission Rate (kg/t)	Emission Limit	Comments
Sulphur Dioxide	***0.81***	0.75	***Exceeds emission limit.***
Hydrogen Fluoride	***0.014***	0.008	***Exceeds emission limit.***
Hydrogen Chloride	***0.04***	0.03	***Exceeds emission limit.***
Group 1 metals	0.65	1.5	Within emission limit.
Total metals	0.75	7.5	Within emission limit.
Volume flow	7.2 m/s	-	Volume flow wet @STP
Volume flow	6.2 m/s	-	Volume flow dry @STP

22-23rd August 2018:

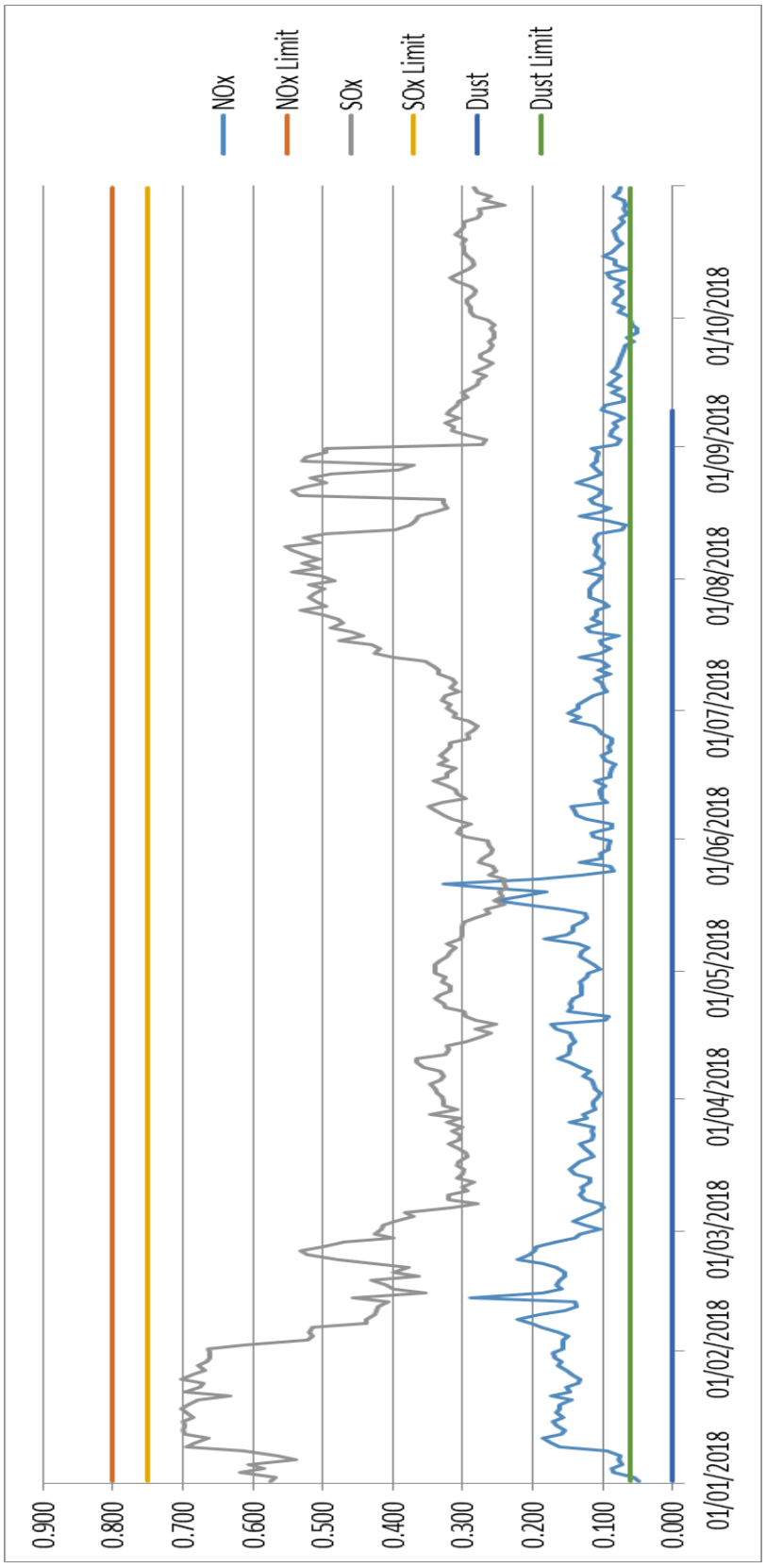
Parameter	Emission Rate (kg/t)	Emission Limit	Comments
Particulate	0.01	0.06	Within emission limit.
NO_x as NO_2	0.42	0.8	Within emission limit.
Sulphur Dioxide	***0.98***	0.75	***Exceeds emission limit.***
Hydrogen Fluoride	***0.009***	0.008	***Exceeds emission limit.***
Hydrogen Chloride	***0.004***	0.03	***Exceeds emission limit.***
Group 1 metals	0.50	1.5	Within emission limit.
Total metals	0.78	7.5	Within emission limits.
Volume flow	9.5 m/s	-	Volume flow wet @STP
Volume flow	8.2 m/s	-	Volume flow dry @STP

- I remind you that the Council must be notified 7-days in advance of emissions testing.
- I remind you that emission monitoring reports must be forward to the Council within 8 weeks of the testing taking place

There are inconsistencies between their reports and your furnace pull data, and only one sample is taken whereas your permit requires three (condition 3.1.3).

2. CEMs

CEMs were operational at the time of the inspection. Real-time CEM data appears to be under-reading compared to data obtained from GTS during extractive sampling. We discussed the testing methods/equipment used by GTS. Ultimately if you are not happy with them, you should change your testing house, particularly if you consider that your CEMs are reading true and your sulphur balance calculations indicate that emissions should be within limits.



CEMs must be calibrated at least once every six months. Calibration should coincide with the results of the spot samples. Hire equipment must be used if CEMs need to be removed.

3. Permit update

A permit update was proposed last year in order to remove now redundant upgrading conditions, and to fix an original permitting error in relation to emissions reporting. Proposed amended conditions were as follows:

Condition 3.1.2 re-written as follows:

3.1.2 Measured emissions for comparison with emission limits in condition 3.1.1 shall be calculated by conversion from concentrations mass emission, and:

a) For continuous measurements, a 15-minute average sampling period shall be used.
b) All values for concentrations in waste gases refer to standard conditions: dry gas, temperature 273.15 K, pressure 101.3 kPa.

Condition 4.1.3 re-written as follows:

4.1.3 Exhaust gas volumetric flow rate from melting furnaces shall be continuously monitored and continuously recorded.

We discussed Spot sampling, and condition 3.1.3 could be re-worded as follows:

3.1.3 For discontinuous measurements, the emission limits provisions of condition 3.1.1 should refer to the average value of three spot samples of at least 30 minutes each. Where a single measurement is undertaken, no result shall exceed the emission concentration limits specified.

We also discussed a CEM reliability condition. The standard reliability condition from Agency permits could be used as a basis of a condition for you, and is as follows:

Where Continuous Emission Monitors are installed to comply with the monitoring requirements; the Continuous Emission Monitors shall be used such that;

a) valid 15-minute averages shall be determined within the effective operating time (i.e excluding the start-up and shut-down or hot hold periods).

b) daily average values shall be determined as the average of all the 15-minute average values within a calendar day. The daily average value shall be considered valid if no more than five 15-minute average values in any day have been determined not to be valid;

c) no more than ten daily average values per year shall be determined not to be valid.

The above condition would also give you the clarity that ELVs were not applicable during hot hold.

The condition would also make it a necessity to hire a loan CEM should yours fail or go off for repair.

4. Plant update

A generally summary of updates follows:

- EP Ceramic cones to be replaced.
- Lime injection system not working. CapEx secured for works in 2019.
- Some furnace crown repair works are due. 1 week hot repair, no hot holding planned, plant will remain in production.
- No colour changes from Amber glass for the foreseeable future.
- Not currently recycling EP dust.
- Still no current plans to decommission the oil store.
- No discussion regarding EP dust recycling.

Requirements for action - The following actions must be undertaken within any time specified:

1. Spot testing

The results of the spot-tests have indicated that the emission limits for Sulphur Dioxide, Hydrogen Fluoride and Hydrogen Chloride are not being met. You must:

a) Re-test using a MCERTS accredited testing organisation. The average of 3 30-minute samples is required by condition 3.1.3. Spot testing must be completed and the report submitted to the Regulator before 31st January 2019.

b) Calibrate CEMs using the results of the spot sampling required above by 28th February 2019.

2. EP dust recycling

A final decision of EP dust use / recycling / disposal of collected EP dust will need to be subject to a full assessment, and it is considered that this will need to be completed once the lime injection has been reinstated.

3. Annual reports

The annual summary report for raw material use and products produced (condition 8.4) should be ready for the next inspection. The next inspection will be an audit of records required by the permit.

An inspection date in the first week of March 2018 is requested.

Signed: Date of Report**:** ***26th November 2018***

Environmental Health Officer