

Harlow Council

Environmental Permitting Regulations 2016

Regulated Facility Inspection



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

Site Reference: EPR/A2/001 **Date Inspected:** 30th November 2017

Inspection Type: Check Inspection **Person Seen:** Raj Parmar

Site Name & Address: O-I manufacturing UK
Edinburgh Way
Harlow
Essex
CM20 2UG **Inspected By:** Fay Rushby
Steven Adams

1. Spot samples

Emissions testing was undertaken in August 2017, with the furnace working under normal operating conditions.

The emissions monitoring results indicate that all emissions are well within limits as follows:

Parameter	Emission Rate	Emission Limit	Comments
Particulate	0.001	0.06	Within emission limits.
NO _x as NO ₂	0.59	0.8	Within emission limits.
Sulphur Dioxide	0.67	0.75	Within emission limits.
Hydrogen Fluoride	0.007	0.008	Within emission limits.
Hydrogen Chloride	0.03	0.03	On emission limit.
Group 1 metals	0.98	1.5	Within emission limits.
Total metals	1.05	7.5	Within emission limits.

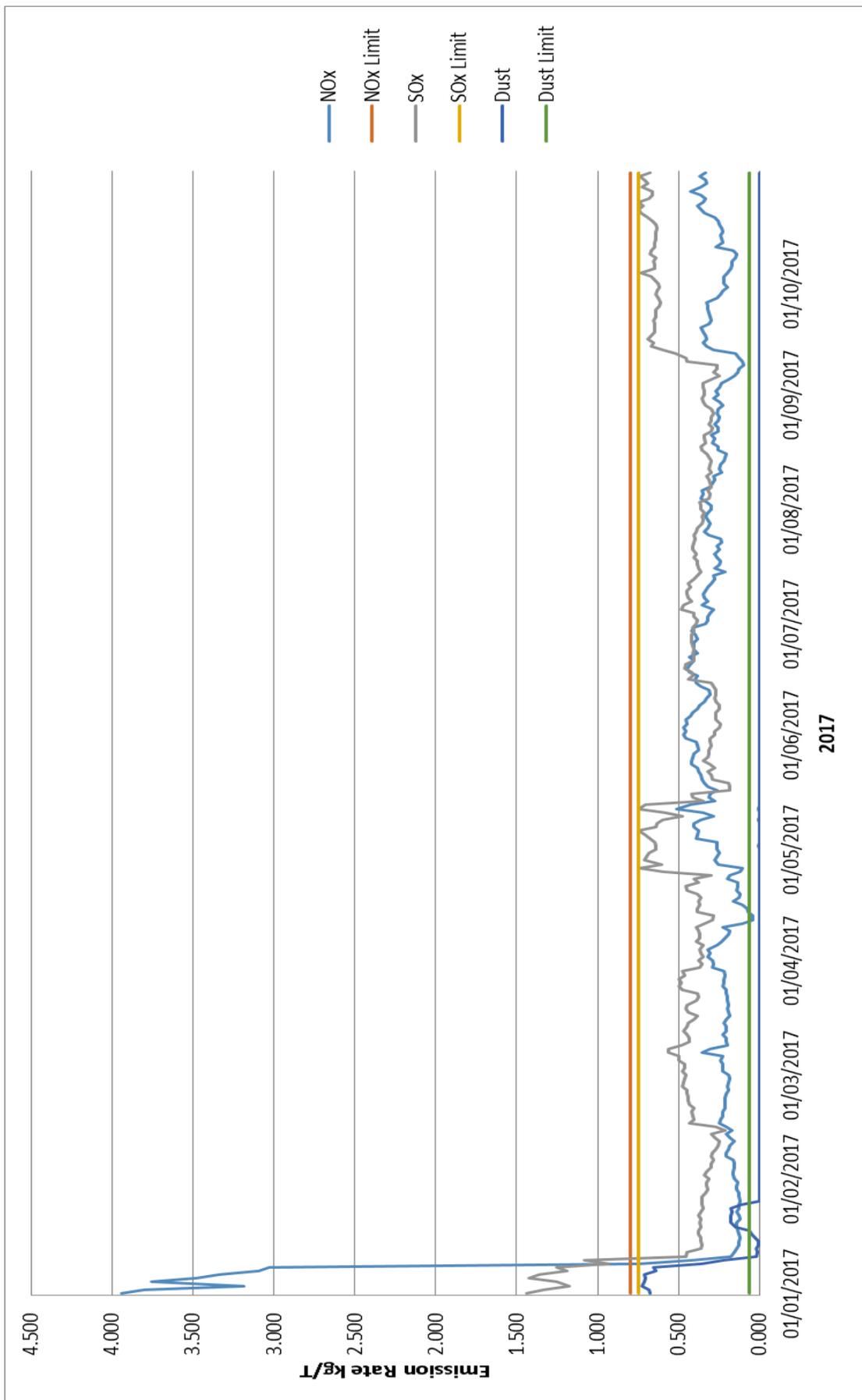
Emissions testing was being completed at the time of the inspection. Please forward the test report within 8 weeks of the testing.

2. Plant update

A generally summary of updates follows:

- HV electricity distribution board being replaced.
- Increased salt cake use from September 2017, thought to be due to lower quality cullet than desired (often metals in cullet) and change of cullet supplier.
- Lime injection system not working. Dampness in system possibly caused by moisture from the VSA. Trace heating being considered.
- Flow meter now installed in the stack and output is said to compare well with the extractive test data. *Some discussion had as to whether the software converted the output to Nm³ flow or only at stack conditions as this can make a massive difference in calculated emission values. Emissions are currently calculated as kg/hr.
- Some recent issued with cullet detectors and pre-heaters. Energy profiles with aim to prevent cold spots in the furnace. This has had a destabilising effect on SO_x and NO_x emissions as can be seen from CEM data, but emissions remain within limits.
- Some heat issues with the furnace crown noted – the oxy-furnace is a particularly harsh furnace environment.

- Daily averages apply for the purpose of demonstrating compliance with emission limits. These were charted to assess compliance:



- Emissions have been excellent. The effects from September can clearly be seen, but emissions remain compliant.
- No Christmas shutdown planned for December 2017.

- The EP is scheduled for a clean January / February 2018 (TBC). 2 fields are operating. One other has a full hopper that is interfering with the electrical field. CapEx acquired to update the control system.
- Not currently recycling EP dust as there are logistical issues in getting it back to the batch house efficiently. The final decision on the use / recycling / disposal of collected EP dust will be subject to a cost benefit assessment.
- No current plans to decommission the oil store

3. Water management & energy

Some very impressive savings on water use were reported; the result of great operational practices and enhanced maintenance. Raj advised that he would put together a brief report to demonstrate raw material and energy use, and we confirm that this will fulfil the requirements of the Energy Audit Report required by the permit.

- Please be clear if any aspect of the report is to be considered commercially confidential, or remove this data from the report.

4. Permit update

A permit update is proposed in order to remove now redundant upgrading conditions, and to fix an original permitting error in relation to emissions reporting. Proposed amended conditions are 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.

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

1. Flow rate information

Please confirm if the flow rate CEM data is at stack conditions or adjusted normalised to STP (for next inspection).

2. Spot test report

Please forward the results of the recent spot test before 25th January 2018.

3. EP dust recycling

A final decision of EP dust use / recycling / disposal of collected EP dust will need to be subject to a cost benefit assessment (date to be agreed).

Signed:



Environmental Health Officer

Date of Report:

3rd January 2018