MONITORING OF EMISSIONS

This document is to support Application Form B3, Section 4 in relation to emissions monitoring of Combustion Plant and Treated Effluent to Water. It describes how the monitoring is undertaken at present and where these further elements are required to become BAT compliant by permit issue, it is recorded.

1. MONITORING OF EMISSIONS TO AIR

Combustion Plant on site as identified in K499.2~09~1201 will be subjected to monitoring on permit issue as they fall under the Medium Combustion Plant Directive. This will be conducted in the following ways:

- Extractive Monitoring performed by an MCERTS accredited contractor at the frequency determined by the permit schedules.
- Monitoring Standards used will be the following*,
    - NOx: EN 14792.
    - CO: EN 15058.
    - SO2: EN 14791.
    - Particulate Matter: EN 13284-1.
- Stack sampling will conform to EN 15259 requirements for sample ports and access.
- Extractive sampling was conducted as part of the permit application exercise and has been used as a baseline for H1.
- Results reported will be reviewed by H Weston & Sons Ltd and reported to the Environment Agency as per the permit requirements.
- There is built in auto monitoring on the boilers, but this is not certified to MCerts standard, therefore the stacks have been modified to facilitate annual testing for the specified elements by an MCerts accre
- dited contractor.

It is anticipated that monitoring will be required for A1, A2 (boiler house) and A30 (CHP) on an annual basis upon permit issue. Monitoring will be performed to permit requirements.

*Monitoring stack emissions: techniques and standards for periodic monitoring - GOV.UK or as specified in permit if different upon issue.

2. MONITORING OF EMISSIONS TO SURFACE WATER (TREATED EFFLUENT)

Table 1 covers the current monitoring and frequency in place at H Weston & Sons for the monitoring of treated effluent released to surface water.

Table 1: Current surface water testing and frequency.

Parameter Monitored	Test Frequency	Standard used
COD	Daily	COD cuvette test 15-150 mg/L O_2 COD cuvette test 100-2000 mg/L O_2 COD cuvette test 1,000-10,000 mg/L O_2 ISO 6060-1989, DIN 38409-H41-H44
Phosphate	Daily	Phosphate (Ortho/Total) cuvette test 0.05-1.5 mg/L PO_4-P Phosphate (Ortho/Total) cuvette test 0.05-1.5 mg/L PO_4-P ISO 6878_2004, DIN EN 6878 / D11
Ammonium	Daily	Ammonium cuvette test 0.015-2.0 mg/L NH_4-N Ammonium cuvette test 1.0-12.0 mg/L NH_4-N ISO 7150-1, DIN 38406 E5-1, UNI 11669:2017, ISO 23695
Nitrate	Daily	Nitrate cuvette test 0.23-13.5 mg/L NO_3-N DIN 38405 D9-2, ISO 23696-1
BOD	6 Monthly	(EN 1899-1)

Table 2 covers the emissions monitoring standards that will be in place by permit issue to ensure BAT compliance.

Table 2: Future surface water monitoring and frequency.

Parameter Monitored	Test Frequency[2]	Standard used
COD /TOC [1]	**Daily**	No standard specified for COD. TOC: (EN1484)
BOD	**Monthly**	(EN 1899-1)
Total Nitrogen	**Daily**	(EN 12260, EN ISO11905-1)
Nitrate	**Daily**	Completed if required to permit standard
Total Suspended Solids	**Daily**	(EN872)
Chloride	**Monthly**	(EN ISO 1034-1 or (EN ISO 15682)
Phosphorus	**Daily**	(EN ISO 6878 or other EN ISO standards as described).

Note 1: BAT States TOC measuring is preferred to COD, but monitoring will reflect final permit.

Note 2: As specified by FDM BREF, however Westons discharge has been permitted under a separate discharge consent for many years. Data is available to show the discharge is stable

and would therefore like to reduce monitoring frequencies from BAT stated frequencies if possible.

Surface water results are compared to permitted limits (at present and in future). If there is an exceedance of these permitted emission levels, it is communicated to the relevant team and is escalated to the Environment Agency.