

Notice of variation and consolidation with introductory note

The Environmental Permitting (England & Wales) Regulations 2010

James Cropper Public Limited Company

Burnside Mills
Kendal
Cumbria
LA9 6PZ

Variation application number

EPR/BJ7620ID/V007

Permit number

EPR/BJ7620ID

Burneside Mills

Permit number EPR/BJ7620ID

Introductory note

This introductory note does not form a part of the notice.

The following notice gives notice of the variation and consolidation of an environmental permit.

Changes introduced by this variation notice/statutory review

This variation has been issued to update some of the conditions following a statutory review of the permits in the industry sector for the production of pulp, paper and board. The opportunity has also been taken to consolidate the original permit and subsequent variations.

The Industrial Emissions Directive (IED) came into force on 7th January 2014 with the requirement to implement all relevant Best Available Techniques (BAT) conclusions as described in the Commission Implementing Decision. The BAT conclusions for production of pulp, paper and board were published on 30 September 2014 in the Official Journal of the European Union (L284) following a European Union wide review of BAT, implementing decision 2014/687/EU of 26 September 2014. The relevant BAT conclusions that apply from 1 October 2018 are 1, 2, 3, 5 to 8, 12, 17, 18, 42 to 44, 46 to 49, 52 and 53. The operator is compliant with the relevant BAT conclusions.

The schedules specify the changes made to the permit. Schedule 1 of the notice specifies the conditions that have been varied and schedule 2 comprises a consolidated permit which reflects the changes being made. Only the changes specified in schedule 1 are subject to a right of appeal.

Brief description of the process

The main purpose of the activities at the installation is to produce speciality papers manufactured primarily from imported wood pulp.

The speciality papers are formed into a variety of products including packaging materials, creative papers for design, book cover, framing, archival and other papers for technical applications.

The installation covers all stages of the papermaking process from raw material storage and handling, stock preparation, with the speciality papers made on four papermaking machines, after which the papers are then converted into final products and stored within warehousing prior to dispatch.

The converting operations include a 3D paper moulding process which produces speciality packaging material. This operates as a separate business unit but is wholly owned and controlled by James Cropper PLC.

The main fibrous raw material is pre-formed virgin wood pulp which is imported in the form of bales. Water is added and then the diluted wood pulp is spread and dried to form the speciality papers.

The water removed during the papermaking and drying process is reused, where possible, before being treated by the on-site effluent dewatering plant, which consists of a Dissolved Air Flotation (DAF) unit. Finally, the treated effluent is discharged to United Utilities; Kendal wastewater treatment works (Wwtw), from which the primary emissions are Chemical Oxygen Demand (COD) and total suspended solids (TSS).

The water used in the speciality papermaking process is taken from the River Kent.

The site's electricity and steam is supplied by the on-site, James Cropper PLC owned, combined heat and power (CHP) plant, which consists of a gas turbine which directly drives a 6.2 MWe alternator. The turbine exhaust gases are then passed through a waste heat boiler (WHB). There are also three other conventional boilers that are used to supplement mill steam supplies, when the WHB can not meet the demand or in the event the CHP is unavailable. The main emissions to air from the installation are the products of combustion released from the CHP and boilers.

The installation is located on the edge of the Lake District National Park and on the River Kent, which is designated as a Site of Special Scientific Interest (SSSI) and a Special Area of Conservation (SAC).

The permit incorporates a Variation (EPR/BJ7620ID/V004) Issued on 01 December 2010 in response to an application from the operator to install a new 8.7MW net thermal input steam raising plant (Boiler 5) fired using solid recovered fuel (SRF) and other waste materials as specified in the permit.

The plant has not been constructed and therefore consequently it has not been possible to specify dates in the improvement programme for the completion of work relating to calibration and commissioning issues. To address this issue a pre operational condition is included requiring the operator to formally notify the Environment Agency prior to the commencement of this project which has enabled the improvement conditions to be defined as being required after a specified period from the start of the project.

The status log of a permit sets out the permitting history, including any changes to the permit reference number.

Status log of the permit		
Description	Date	Comments
Application EPR/BJ7620ID/A001	Duly made 28/02/01	Application for paper mill
Additional information received	30/11/01; 14/12/01; 17/01/02; 28/02/02	
Permit issued EPR/BJ7620ID	31/05/02	
Application for variation EPR/BJ7620ID/V002	Duly Made 07/01/05	
Variation issued EPR/BJ7620ID/V002	06/04/05	
Application for variation EPR/BJ7620ID/V003	Duly Made 24/08/06	
Variation Issued EPR/BJ7620ID/V003	12/04/07	
Application for variation EPR/BJ7620ID/V004	Duly Made 03/06/09	
Additional information	Received 14/10/09	
Additional information	Received 02/06/10	Human Health & Habitats Assessment
Additional information	Received 04/08/10	Boiler capacities and firing sequence
Additional information	Received 28/09/10	Boiler fuel
Variation Issued EPR/BJ7620ID/V004	01/12/10	Effective 01/01/11
Variation Application EPR/BJ7620ID/V005 and Environment Agency Paper and Pulp Sector Review 2011	Duly made 29/11/11	Application to vary and update the permit to modern conditions
Additional information received	23/01/12	Noise impact justification of proposed development
Additional information received	13/03/12	ISO 9613-2 environmental noise impact assessment
Variation Issued EPR/BJ7620ID/V005	26/03/12	Varied and consolidated permit issued in modern condition format
Environment Agency variation determined EPR/BJ7620ID/V006	20/01/14	Environment Agency variation to implement the changes introduced by IED
Regulation 60 Notice dated 21/11/14 (Notice requiring information for	Response Received 30/03/15	Technical standards detailed in response to the information notice. Information to demonstrate that relevant BAT

Status log of the permit		
Description	Date	Comments
statutory review of permit)		conclusions are met for the production of pulp, paper and board as detailed in document reference L284.
Response to Request for Further Information	Response Received 30/09/15	Technical standards – BAT conclusions 1, 6, 49 and 53
EPR/BJ7620ID/V007 (variation and consolidation) determined (Billing Ref: RP3035AF)	28/07/16	Statutory review of permit - BAT Conclusions published 30 September 2014 Varied and consolidated permit issued

End of introductory note

Notice of variation and consolidation

The Environmental Permitting (England and Wales) Regulations 2010

The Environment Agency in exercise of its powers under regulation 20 of the Environmental Permitting (England and Wales) Regulations 2010 varies and consolidates

Permit number

EPR/BJ7620ID

Issued to

James Cropper Public Limited Company ("the operator")

whose registered office is

Burnside Mills

Kendal

Cumbria

LA9 6PZ

company registration number **00030226**

to operate a regulated facility at

Burnside Mills

Kendal

Cumbria

LA9 6PZ

to the extent set out in the schedules.

The notice shall take effect from 28/07/2016

Name	Date
SIMON HEWITT	28/07/2016

Authorised on behalf of the Environment Agency

Schedule 1

The following conditions/tables were changed by the consolidated permit EPR/BJ7620ID/V007 as a result of an Environment Agency initiated variation:

CONDITIONS	
2.3.2	amended to current permit template format
2.3.8 to 2.3.14	amended to refer to the updated activity reference and to remove reference to WID
2.5.1 and 2.5.2	amended to refer to the updated activity reference
3.1.1	amended to remove reference to WID
3.1.3	amended to refer to the updated activity reference
3.1.4	added to implement the requirements of the Industrial Emissions Directive (IED)
3.2.2	amended to current permit template format
3.3.2	amended to current permit template format
3.4.2	amended to current permit template format
3.5.3	amended to refer to the updated activity reference
3.5.5	added to replace Notes 2, 4, 7 and 8 to Table S3.1
3.6.1 and 3.6.2	added for fire prevention
4.2.2	amended to remove reference to WID
4.3.1 and 4.3.2	amended to implement the requirements of the IED
4.4.2	amended to implement the requirements of the IED
Schedule 6	updated
TABLES	
S1.1	amended for clarity on description of activities and to include pulping activity
S1.2	amended to introduce new operating techniques
S1.3	amended to remove completed improvements
S1.4A	amended to refer to the updated activity reference and to include an additional condition
S3.1	amended to include parameters previously in table S3.6
S3.3	amended to revise Hazardous pollutants and metals monitoring and remove requirements for monitoring sanitary pollutants to sewer
S3.6	amended to add parameters and remove parameters now in table S3.1
S4.3	amended performance parameters
S4.4	amended reporting forms

Schedule 2 – consolidated permit

Consolidated permit issued as a separate document.

Permit

The Environmental Permitting (England and Wales) Regulations 2010

Permit number

EPR/BJ7620ID

This is the consolidated permit referred to in the variation and consolidation notice for application EPR/BJ7620ID/V007 authorising,

James Cropper Public Limited Company (“the operator”),

whose registered office is

Burnside Mills

Kendal

Cumbria

LA9 6PZ

company registration number **00030226**

to operate an installation at

Burnside Mills

Kendal

Cumbria

LA9 6PZ

to the extent authorised by and subject to the conditions of this permit.

Name	Date
SIMON HEWITT	28/07/2016

Authorised on behalf of the Environment Agency

Conditions

1 Management

1.1 General management

- 1.1.1 The operator shall manage and operate the activities:
- (a) in accordance with a written management system that identifies and minimises risks of pollution, including those arising from operations, maintenance, accidents, incidents, non-conformances, closure and those drawn to the attention of the operator as a result of complaints; and
 - (b) using sufficient competent persons and resources.
- 1.1.2 Records demonstrating compliance with condition 1.1.1 shall be maintained.
- 1.1.3 Any person having duties that are or may be affected by the matters set out in this permit shall have convenient access to a copy of it kept at or near the place where those duties are carried out.

1.2 Energy efficiency

- 1.2.1 The operator shall:
- (a) take appropriate measures to ensure that energy is recovered with a high level of energy efficiency and energy is used efficiently in the activities.
 - (b) review and record at least every four years whether there are suitable opportunities to improve the energy efficiency of the activities; and
 - (c) take any further appropriate measures identified by a review.

1.3 Efficient use of raw materials

- 1.3.1 The operator shall:
- (a) take appropriate measures to ensure that raw materials and water are used efficiently in the activities;
 - (b) maintain records of raw materials and water used in the activities;
 - (c) review and record at least every four years whether there are suitable alternative materials that could reduce environmental impact or opportunities to improve the efficiency of raw material and water use; and
 - (d) take any further appropriate measures identified by a review.

1.4 Avoidance, recovery and disposal of wastes produced by the activities

- 1.4.1 The operator shall take appropriate measures to ensure that:
- (a) the waste hierarchy referred to in Article 4 of the Waste Framework Directive is applied to the generation of waste by the activities;
 - (b) any waste generated by the activities is treated in accordance with the waste hierarchy referred to in Article 4 of the Waste Framework Directive; and
 - (c) where disposal is necessary, this is undertaken in a manner which minimises its impact on the environment.
- 1.4.2 The operator shall review and record at least every four years whether changes to those measures should be made and take any further appropriate measures identified by a review.

2 Operations

2.1 Permitted activities

- 2.1.1 The operator is only authorised to carry out the activities specified in schedule 1 table S1.1 (the “activities”).
- 2.1.2 Waste authorised by this permit shall be clearly distinguished from any other waste on the site.

2.2 The site

- 2.2.1 The activities shall not extend beyond the site, being the land shown edged in red on the site plan at schedule 7 to this permit.

2.3 Operating techniques

- 2.3.1 The activities shall, subject to the conditions of this permit, be operated using the techniques and in the manner described in the documentation specified in schedule 1, table S1.2, unless otherwise agreed in writing by the Environment Agency.
- 2.3.2 If notified by the Environment Agency that the activities are giving rise to pollution, the operator shall submit to the Environment Agency for approval within the period specified, a revision of any plan or other documentation (“plan”) specified in schedule 1, table S1.2 or otherwise required under this permit which identifies and minimises the risks of pollution relevant to that plan, and shall implement the approved revised plan in place of the original from the date of approval, unless otherwise agreed in writing by the Environment Agency.
- 2.3.3 The aggregate total of steam raising boilers operated at any one time shall not exceed 50 MW net thermal input.
- 2.3.4 Any raw materials or fuels listed in schedule 2 table S2.1 shall conform to the specifications set out in that table.
- 2.3.5 Waste shall only be accepted if:
- (a) it is of a type and quantity listed in schedule 2 tables S2.2 and S2.3; and
 - (b) it conforms to the description in the documentation supplied by the producer and holder.

- 2.3.6 The operator shall ensure that where waste produced by the activities is sent to a relevant waste operation, that operation is provided with the following information, prior to the receipt of the waste:
- (a) the nature of the process producing the waste;
 - (b) the composition of the waste;
 - (c) the handling requirements of the waste;
 - (d) the hazardous property associated with the waste, if applicable; and
 - (e) the waste code of the waste.
- 2.3.7 The operator shall ensure that where waste produced by the activities is sent to a landfill site, it meets the waste acceptance criteria for that landfill.
- 2.3.8 For the steam raising boiler, reference A4, in schedule 1, table S1.1, waste fuel shall not be charged, or shall cease to be charged, if:
- (a) the combustion chamber temperature is below, or falls below 850°C or
 - (b) any continuous emission limit value in schedule 3 table S3.1(a) is exceeded; or
 - (c) any continuous emission limit value in schedule 3 table S3.1 is exceeded, other than under abnormal operating conditions ; or
 - (d) monitoring results required to demonstrate compliance with any continuous emission limit value in schedule 3 table S3.1 are unavailable other than under abnormal operating conditions.
- 2.3.9 For the steam raising boiler, reference A4, in schedule 1, table S1.1, the operator shall have at least one auxiliary burner in each line at start up or shut down or whenever the operating temperature falls below that specified in condition 2.3.8, as long as incompletely burned waste is present in the combustion chamber. Unless the temperature specified in condition 2.3.8 is maintained in the combustion chamber, such burner(s) may be fed only with fuels which result in emissions no higher than those arising from the use of gas oil, liquefied gas or natural gas.
- 2.3.10 For the steam raising boiler, reference A4, in schedule 1, table S1.1, the operator shall record the beginning and end of each period of “abnormal operation”.
- 2.3.11 For the steam raising boiler, reference A4, in schedule 1, table S1.1, during a period of “abnormal operation”, the operator shall restore normal operation of the failed equipment or replace the failed equipment as rapidly as possible.
- 2.3.12 For the steam raising boiler, reference A4, in schedule 1, table S1.1, where, during “abnormal operation”, on an incineration line any of the following situations arise, waste shall cease to be charged on that line until normal operation can be restored:
- (a) continuous measurement shows that an emission exceeds any emission limit value in schedule 3 table S3.1 due to disturbances or failures of the abatement systems, or continuous emission monitor(s) are out of service, as the case may be, for a total of 4 hours uninterrupted duration;
 - (b) the cumulative duration of “ abnormal operation” periods over 1 calendar year has reached 60 hours;
 - (c) continuous measurement shows that an emission exceeds any emission limit value in schedule 3 table S3.1 (a) due to disturbances or failures of the abatement systems;
 - (d) the alternative techniques to demonstrate compliance with the emission limit value(s) for particulates, TOC and / or CO in schedule 3 table S3.1 (a), as detailed in the application or as agreed in writing with the Environment Agency, are unavailable.

- 2.3.13 For the steam raising boiler, reference A4, in schedule 1, table S1.1, the operator shall interpret the end of the period of “abnormal operation” as the earliest of the following:
- (a) when the failed equipment is repaired and brought back into normal operation;
 - (b) when the operator initiates a shut down of the waste combustion activity, as described in the application or as agreed in writing with the Environment Agency;
 - (c) when a period of four hours has elapsed from the start of the “WID abnormal operation”;
 - (d) when, in any calendar year, an aggregated period of 60 hours “abnormal operation” has been reached.
- 2.3.14 For the steam raising boiler, reference A4, in schedule 1, table S1.1, bottom ash and APC residues shall not be mixed.

2.4 Improvement programme

- 2.4.1 The operator shall complete the improvements specified in schedule 1 table S1.3 by the date specified in that table unless otherwise agreed in writing by the Environment Agency.
- 2.4.2 Except in the case of an improvement which consists only of a submission to the Environment Agency, the operator shall notify the Environment Agency within 14 days of completion of each improvement.

2.5 Pre-operational conditions

- 2.5.1 The steam raising boiler (reference A4, in schedule 1, table S1.1), shall not be brought into operation until the measures specified in schedule 1 table S1.4A have been completed.
- 2.5.2 Conditioning/treatment of the bottom ash (reference A4, in schedule 1, table S1.1) cannot be undertaken until the measures specified in schedule 1 table S1.4B have been completed.

3 Emissions and monitoring

3.1 Emissions to water, air or land

- 3.1.1 There shall be no point source emissions to water, air or land except from the sources and emission points listed in schedule 3 tables S3.1, S3.2 and S3.3 except in “abnormal operation”, when there shall be no point source emissions to water, air or land except from the sources and emission points listed in schedule 3 tables S3.1(a), S3.2 and S3.3.
- 3.1.2 The limits given in schedule 3 shall not be exceeded.
- 3.1.3 For the steam raising boiler, reference A4, in schedule 1, table S1.1 wastes produced at the site shall, as a minimum, be sampled and analysed in accordance with schedule 3 table S3.7. Additional samples shall be taken and tested and appropriate action taken, whenever:
- (a) disposal or recovery routes change; or
 - (b) it is suspected that the nature or composition of the waste has changed such that the route currently selected may no longer be appropriate.
- 3.1.4 Periodic monitoring shall be carried out at least once every 5 years for groundwater and 10 years for soil, unless such monitoring is based on a systematic appraisal of the risk of contamination.

3.2 Emissions of substances not controlled by emission limits

3.2.1 Emissions of substances not controlled by emission limits (excluding odour) shall not cause pollution. The operator shall not be taken to have breached this condition if appropriate measures, including, but not limited to, those specified in any approved emissions management plan, have been taken to prevent or where that is not practicable, to minimise, those emissions.

3.2.2 The operator shall:

- (a) if notified by the Environment Agency that the activities are giving rise to pollution, submit to the Environment Agency for approval within the period specified, an emissions management plan which identifies and minimises the risks of pollution from emissions of substances not controlled by emission limits;
- (b) implement the approved emissions management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

3.2.3 All liquids in containers, whose emission to water or land could cause pollution, shall be provided with secondary containment, unless the operator has used other appropriate measures to prevent or where that is not practicable, to minimise, leakage and spillage from the primary container.

3.3 Odour

3.3.1 Emissions from the activities shall be free from odour at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved odour management plan, to prevent or where that is not practicable to minimise the odour.

3.3.2 The operator shall:

- (a) if notified by the Environment Agency that the activities are giving rise to pollution outside the site due to odour, submit to the Environment Agency for approval within the period specified, an odour management plan which identifies and minimises the risks of pollution from odour;
- (b) implement the approved odour management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

3.4 Noise and vibration

3.4.1 Emissions from the activities shall be free from noise and vibration at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved noise and vibration management plan to prevent or where that is not practicable to minimise the noise and vibration.

3.4.2 The operator shall:

- (a) if notified by the Environment Agency that the activities are giving rise to pollution outside the site due to noise and vibration, submit to the Environment Agency for approval within the period specified, a noise and vibration management plan which identifies and minimises the risks of pollution from noise and vibration;
- (b) implement the approved noise and vibration management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

3.5 Monitoring

- 3.5.1 The operator shall, unless otherwise agreed in writing by the Environment Agency, undertake the monitoring specified in the following tables in schedule 3 to this permit:
- (a) point source emissions specified in tables S3.1, S3.1(a), S3.2 and S3.3;
 - (b) surface water of groundwater specified in table S3.5;
 - (c) process monitoring specified in table S3.6;
 - (d) ash monitoring specified in table S3.7.
- 3.5.2 The operator shall maintain records of all monitoring required by this permit including records of the taking and analysis of samples, instrument measurements (periodic and continual), calibrations, examinations, tests and surveys and any assessment or evaluation made on the basis of such data.
- 3.5.3 Monitoring equipment, techniques, personnel and organisations employed for the emissions monitoring programme and the environmental or other monitoring specified in condition 3.5.1 shall have either MCERTS certification or MCERTS accreditation (as appropriate) unless otherwise agreed in writing by the Environment Agency. For steam raising boiler, reference A4, in schedule 1, table S1.1 newly installed CEMs, or CEMs replacing existing CEMs, shall have MCERTS certification and have an MCERTS certified range which is not greater than 1.5 times the daily emission limit value (ELV) specified in Schedule 3 Table S3.1. The CEM shall also be able to measure instantaneous values over the ranges which are to be expected during all operating conditions. If it is necessary to use more than one range setting of the CEM to achieve this requirement, the CEM shall be verified for monitoring supplementary, higher ranges.
- 3.5.4 Permanent means of access shall be provided to enable sampling/monitoring to be carried out in relation to the emission points specified in schedule 3 tables S3.1, S3.2 and S3.3 unless otherwise agreed in writing by the Environment Agency.

- 3.5.5 Where Continuous Emission Monitors are installed to comply with the monitoring requirements in schedule 3 table S3.1; the Continuous Emission Monitors shall be used such that;
- (a) the values of the 95% confidence intervals of a single measured result at the daily emission limit value shall not exceed the following percentages:

(i) Carbon monoxide	10%
(ii) Sulphur dioxide	20%
(iii) Oxides of nitrogen (NO & NO ₂ expressed as NO ₂)	20%
(iv) Particulate matter	30%
(v) Total organic carbon (TOC)	30%
(vi) Hydrogen chloride	40%
 - (b) valid half-hourly average values shall be determined within the effective operating time (excluding the start-up and shut-down periods) from the measured values after having subtracted the value of the confidence intervals in condition 3.5.5;
 - (c) where it is necessary to calibrate or maintain the monitor and this means that data are not available for a complete half-hour period, the half-hourly average shall in any case be considered valid if measurements are available for a minimum of 20 minutes during the half-hour period. The number of half-hourly averages so validated shall not exceed 5 per day;
 - (d) daily average values shall be determined as the average of all the valid half-hourly average values within a calendar day. The daily average value shall be considered valid if no more than five half-hourly average values in any day have been determined not to be valid;
 - (e) no more than ten daily average values per year shall be determined not to be valid.

3.6 Fire prevention

3.6.1 The operator shall take all appropriate measures to prevent fires on site and minimise the risk of pollution from them including, but not limited to, those specified in any approved fire prevention plan.

3.6.2 The operator shall:

- (a) if notified by the Environment Agency that the activities are giving rise to a risk of fire, submit to the Environment Agency for approval within the period specified, a fire prevention plan which prevents fires and minimises the risk of pollution from fires;
- (b) implement the fire prevention plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

4 Information

4.1 Records

4.1.1 All records required to be made by this permit shall:

- (a) be legible;
- (b) be made as soon as reasonably practicable;
- (c) if amended, be amended in such a way that the original and any subsequent amendments remain legible, or are capable of retrieval; and
- (d) be retained, unless otherwise agreed in writing by the Environment Agency, for at least 6 years from the date when the records were made, or in the case of the following records until permit surrender:
 - (i) off-site environmental effects; and
 - (ii) matters which affect the condition of the land and groundwater.

4.1.2 The operator shall keep on site all records, plans and the management system required to be maintained by this permit, unless otherwise agreed in writing by the Environment Agency.

4.2 Reporting

4.2.1 The operator shall send all reports and notifications required by the permit to the Environment Agency using the contact details supplied in writing by the Environment Agency.

4.2.2 A report or reports on the performance of the activities over the previous year shall be submitted to the Environment Agency by 31 January (or other date agreed in writing by the Environment Agency) each year. The report(s) shall include as a minimum:

- (a) a review of the results of the monitoring and assessment carried out in accordance with the permit including an interpretive review of that data;
- (b) the annual production /treatment data set out in schedule 4 table S4.2; and
- (c) the performance parameters set out in schedule 4 table S4.3 using the forms specified in table S4.4 of that schedule.
- (d) the functioning and monitoring of the incineration plant in a format agreed with the Environment Agency. The report shall, as a minimum requirement (as required by Chapter IV of the Industrial Emissions Directive) give an account of the running of the process and the emissions into air and water compared with the emission standards in the IED.

4.2.3 Within 28 days of the end of the reporting period the operator shall, unless otherwise agreed in writing by the Environment Agency, submit reports of the monitoring and assessment carried out in accordance with the conditions of this permit, as follows:

- (a) in respect of the parameters and emission points specified in schedule 4 table S4.1;
- (b) for the reporting periods specified in schedule 4 table S4.1 and using the forms specified in schedule 4 table S4.4 ; and
- (c) giving the information from such results and assessments as may be required by the forms specified in those tables.

4.2.4 The operator shall, unless notice under this condition has been served within the preceding four years, submit to the Environment Agency, within six months of receipt of a written notice, a report assessing whether there are other appropriate measures that could be taken to prevent, or where that is not practicable, to minimise pollution.

4.2.5 Within 1 month of the end of each quarter, the operator shall submit to the Environment Agency using the form made available for the purpose, the information specified on the form relating to the site and the waste accepted and removed from it during the previous quarter.

4.3 Notifications

4.3.1 In the event:

- (a) that the operation of the activities gives rise to an incident or accident which significantly affects or may significantly affect the environment, the operator must immediately—
 - (i) inform the Environment Agency,
 - (ii) take the measures necessary to limit the environmental consequences of such an incident or accident, and
 - (iii) take the measures necessary to prevent further possible incidents or accidents;
- (b) of a breach of any permit condition the operator must immediately—
 - (i) inform the Environment Agency, and
 - (ii) take the measures necessary to ensure that compliance is restored within the shortest possible time;
- (c) of a breach of permit condition which poses an immediate danger to human health or threatens to cause an immediate significant adverse effect on the environment, the operator must immediately suspend the operation of the activities or the relevant part of it until compliance with the permit conditions has been restored.

4.3.2 Any information provided under condition 4.3.1 (a)(i), or 4.3.1 (b)(i) where the information relates to the breach of a limit specified in the permit, shall be confirmed by sending the information listed in schedule 5 to this permit within the time period specified in that schedule.

4.3.3 Where the Environment Agency has requested in writing that it shall be notified when the operator is to undertake monitoring and/or spot sampling, the operator shall inform the Environment Agency when the relevant monitoring and/or spot sampling is to take place. The operator shall provide this information to the Environment Agency at least 14 days before the date the monitoring is to be undertaken.

4.3.4 The Environment Agency shall be notified within 14 days of the occurrence of the following matters, except where such disclosure is prohibited by Stock Exchange rules:

Where the operator is a registered company:

- (a) any change in the operator's trading name, registered name or registered office address; and
- (b) any steps taken with a view to the operator going into administration, entering into a company voluntary arrangement or being wound up.

Where the operator is a corporate body other than a registered company:

- (a) any change in the operator's name or address; and
- (b) any steps taken with a view to the dissolution of the operator.

In any other case:

- (a) the death of any of the named operators (where the operator consists of more than one named individual);
- (b) any change in the operator's name(s) or address(es); and
- (c) any steps taken with a view to the operator, or any one of them, going into bankruptcy, entering into a composition or arrangement with creditors, or, in the case of them being in a partnership, dissolving the partnership.

- 4.3.5 Where the operator proposes to make a change in the nature or functioning, or an extension of the activities, which may have consequences for the environment and the change is not otherwise the subject of an application for approval under the Regulations or this permit:
- (a) the Environment Agency shall be notified at least 14 days before making the change; and
 - (b) the notification shall contain a description of the proposed change in operation.
- 4.3.6 The Environment Agency shall be given at least 14 days notice before implementation of any part of the site closure plan.
- 4.3.7 Where the operator has entered into a climate change agreement with the Government, the Environment Agency shall be notified within one month of:
- (a) a decision by the Secretary of State not to re-certify the agreement;
 - (b) a decision by either the operator or the Secretary of State to terminate the agreement; and
 - (c) any subsequent decision by the Secretary of State to re-certify such an agreement.

4.4 Interpretation

- 4.4.1 In this permit the expressions listed in schedule 6 shall have the meaning given in that schedule.
- 4.4.2 In this permit references to reports and notifications mean written reports and notifications, except where reference is made to notification being made "immediately", in which case it may be provided by telephone.

Schedule 1 – Operations

Table S1.1 activities			
Activity reference	Activity listed in Schedule 1 of the EP Regulations	Description of specified activity	Limits of specified activity and waste types
A1	Section 6.1 Part A(1)(a)	Producing, in industrial plant, pulp from timber or other fibrous materials. Recovery of chemical pulp from beverage papers	From receipt of waste paper cups and off cuts and other raw materials to storage of pulp.
A2	Section 6.1 Part A(1)(b)	Producing, in industrial plant, paper and board where the plant has a production capacity of more than 20 tonnes per day.	From receipt of virgin pulp and or recycled waste paper and raw materials, to storage and despatch of finished product. Producing specialist paper from virgin pulp and secondary fibre using four machines.
A3	Section 5.4 Part A(1)(a)(ii)	Disposal of non-hazardous waste with a capacity exceeding 50 tonnes per day (or 100 tonnes per day if the only waste treatment activity is anaerobic digestion) involving physico-chemical treatment	From collection of effluent and waste waters to discharge to United utilities foul sewer at emission point S1. Includes dewatering of sludge.

Table S1.1 activities			
Activity reference	Activity listed in Schedule 1 of the EP Regulations	Description of specified activity	Limits of specified activity and waste types
Directly Associated Activity			
A4	Burning of waste as a fuel	Operation of 8.7 MW thermal input steam raising plant (Boiler 5) fired using solid recovered fuel and waste materials as specified in table S2.3.	From receipt of solid recovered fuel and other non-hazardous wastes as detailed in table S2.3 to the removal from site of combustion bottom ash and fly ash including the abatement of emissions to air, storage of materials for use as a fuel and chipping of wood for use as a fuel. Ash conditioning may be included subject to the completion of pre operational condition 1 as specified in table S1.4B.
A5	Steam and electrical power supply	<20 MW Thermal input gas turbine CHP plant / Waste Heat Recovery Unit (WRU) fired using gas or gas oil. WRU Includes additional supplementary firing up to 15 MW thermal input.	Gas oil shall only be burned during servicing or otherwise for a maximum of 1000 hours in any calendar year except with the prior agreement in writing with the Agency. All occasions where gas oil is used shall be notified to the Agency, measured and recorded.
A6	Supplementary Steam Boiler 2	10 MW Thermal Input dual fuel gas or gas oil fired steam raising boiler.	Gas oil shall only be burned during servicing or otherwise for a maximum of 1000 hours ^{Note 1} in any calendar year except with the prior agreement in writing with the Agency. All occasions where gas oil is used shall be notified to the Agency, measured and recorded.
A7	Supplementary Steam Boiler 3	10 MW Thermal Input dual fuel gas or heavy fuel oil fired steam raising boiler.	Heavy Fuel Oil (HFO) shall only be burned during servicing or otherwise for a maximum of 5 days in any calendar year except with the prior agreement in writing with the Agency. All occasions where HFO is used shall be notified to the Agency, measured and recorded.
A8	Supplementary Steam Boiler 4	10 MW Thermal Input dual gas oil or heavy fuel oil fired steam raising boiler.	Heavy Fuel Oil shall only be burned during servicing or otherwise for a maximum of 5 days in any calendar year except with the prior agreement in writing with the Agency. All occasions where HFO is used shall be notified to the Agency, measured and recorded

Note 1: Upon commissioning the new steam raising boiler (activity A4 table S1.1) gas oil shall only be burned in Boiler 2 (activity A6 table S1.1) for a maximum of 500 hours in any calendar year except with the prior agreement in writing with the Environment Agency.

Table S1.2 Operating techniques		
Description	Parts	Date Received
Permit Application EPR/BJ7620ID/A001	Sections B2.1 to B2.11 (inclusive) of the original permit application.	28/02/01
Schedule 4 Notice Response	Submissions in response to schedule 4 notice	30/11/01 & 28/02/02
Variation Application EPR/BJ7620ID/V004	Sections 5, 6, 7, 13	03/06/09
Additional Information	Clarification on Waste & SRF acceptance and associated handling.	14/10/09
Additional Information	Boiler firing sequence	04/08/10
Improvement Programme Ref 1	"Commissioning Plan" submitted and agreed in response to reference 1 of table S1.3	-
Pre Operational Measure P002	Agreed Waste Acceptance Criteria provided in response to Pre Operational Measure P002 – table S1.4A	-
Variation Application EPR/BJ7620ID/V005	Response to questions in Section 3 of the application document Part C3 - Operating Techniques.	29/11/11
Response to Schedule 5 Request	Noise survey and summary of noise control measures.	23/01/12
Response to Schedule 5 Request	Environmental Noise ISO 9613-2 assessment.	13/03/12
Receipt of information to the regulation 60(1) Notice. requested by letter dated 21/11/14	Technical standards detailed in response to BAT conclusions 1, 2, 3, 5 to 8, 12, 17, 18, 42 to 44, 46 to 49, 52 and 53 of the notice provided under Regulation 60 of Environmental Permitting Regulations. Best available techniques as described in BAT conclusions under Directive 2010/75/EU of the European Parliament and of the Council on industrial emissions for production of pulp, paper and board	30/03/15
Response to Request for Further Information	Technical standards detailed in response to BAT conclusions 1, 6, 49 and 53.	30/09/15

Table S1.3 Improvement programme requirements		
Ref	Requirement	Date
1	<p>The operator shall submit a “Commissioning Plan” for the new steam raising boiler (5) to the Agency for agreement. The plan should include, but not be limited to the following stages:</p> <ul style="list-style-type: none"> • Method statements / contractor control • Construction & verification of standards • Instrumentation & calibration • Limited combustion trials / production of a basic “recipe book” to ensure a balanced load (compliance with ELVs and calorific value maintained). • Training and procedures. <p>The plan should include timescales for each of the stages and clearly identify completion measures and responsibilities for each of the stages.</p>	<p>Within 1 months of formal notification that the operator is to proceed with the steam raising boiler project (as defined by P001 table S1.4A)</p>
2	<p>The operator shall submit a written proposal to the Agency to carry out tests to determine the size distribution of the particulate matter in the exhaust gas emissions to air from emission point A5, identifying the fractions within the PM10, PM2.5 ranges. The proposal shall include a timetable to carry out such tests and produce a report on the results.</p> <p>The operator shall carry out the tests as approved by the Agency and submit to the Agency a report on the results</p>	<p>Proposal to be submitted to the Agency within 6 months of completion of commissioning of boiler 5.</p> <p>Report to be submitted within the period specified in the Agency’s approval.</p>
3	<p>The operator shall submit a written summary report to the Agency to confirm by the results of calibration and verification testing whether the performance of Continuous Emission Monitors for parameters as specified in Table S4.1 and Table S4.1 (a) complies with the requirements of BS EN 14181, specifically the requirements of QAL1, QAL2 and QAL3.</p>	<p>Initial calibration report to be submitted to the Agency within 3 months of completion of commissioning of boiler 5.</p> <p>Full summary evidence compliance report to be submitted within 18 months of commissioning.</p>
4	<p>The operator shall carry out checks to verify the residence time and minimum temperature of the combustion chamber whilst operating under the anticipated most unfavourable operating conditions.</p> <p>The results shall be submitted in writing to the Agency.</p>	<p>Within 3 months of commission steam raising boiler 5</p>
5	<p>The operator shall submit a report describing the performance and optimisation of the abatement control measures including:</p> <ul style="list-style-type: none"> • The methodology to be used to optimise primary control measures for NOx formation • The methodology to be used to optimise secondary control measures for NOx and N2O formation, in particular, reagent dosing rates • The methodology to be used to optimise reagent dosing for acid gas abatement • The methodology to be used to optimise reagent dosing for dioxin and heavy metal abatement 	<p>Within 5 months of completion of commissioning steam raising boiler 5</p>

Table S1.3 Improvement programme requirements		
Ref	Requirement	Date
6	<p>The operator shall review the monitoring data from emission point A5.</p> <p>Where actual measured levels are in excess of the predicted levels used in the modelling submitted as part of the application the modelling and associated impact assessment shall be repeated.</p> <p>A report detailing the findings of the data review and the results of any revised modelling and impact assessment shall be submitted to the Agency.</p> <p>In the event that any revised modelling / assessment indicates a potential risk of air quality guidelines being exceeded the operator shall agree with the Environment Agency appropriate actions and timescales to address the areas of concern.</p>	Within 18 Months of commission steam raising boiler 5
7	<p>The operator shall use the performance and emissions monitoring data from boiler 5 to undertake a review of the fuel mix “recipe book” with the purpose of ensuring efficient operation of boiler 5.</p> <p>A summary of the findings of the review shall be provided to the Agency.</p> <p>The “recipe book” shall be incorporated into the documented management system and reviewed as necessary e.g. following changes in fuel, waste materials or emissions monitoring data.</p>	18 Months after completion of commissioning of steam raising boiler 5
8	<p>The operator shall undertake a review of the provision of measures for the containment and management of run off arising from any fire-fighting activities in or around the new steam raising boiler and the associated SRF handling facilities.</p> <p>The review should either demonstrate that risks are adequately managed or provide details of measures (and agreed timescales) for the completion of any works required to control the risks.</p> <p>The findings of the review and any proposals for additional measures shall be submitted in writing to the Agency for agreement.</p>	3 Months after commissioning of steam raising boiler 5
9	<p>The operator shall produce as built drawings for the installation showing the location of all pipes, drains, services and structures. The updated drawings shall be incorporated into any relevant elements of the Documented Management System.</p> <p>A copy of the drawings together with a summary of any changes or updates that have been made to the Documented Management System shall be provided to the Agency.</p>	2 months after of commissioning of steam raising boiler 5

Table S1.3 Improvement programme requirements		
Ref	Requirement	Date
10	The operator shall provide the Environment Agency with a copy of an updated noise management plan which should reflect the changes associated with the commissioning of the new boilers.	4 months after of commissioning of steam raising boiler 5
11	The operator shall complete a review of emissions and ash monitoring data and undertake an agreed programme of combustion trials to establish if the use of sludge as a fuel represents BAT in this application. The findings of the review and confirmation of proposals for future use of sludge in the boiler shall be submitted in writing to the Agency.	12 Months after of commissioning of steam raising boiler 5

Note 1: "the commissioning date" for steam raising boiler 5 shall be agreed with the Environment Agency as part of reference 1 of the above table and shall be used for establishing the completion dates of each of the subsequent improvement conditions.

Table S1.4A Pre-operational measures	
With the exception of commissioning work which has been agreed in writing with the Environment Agency as part of the commissioning plan required by reference 1 of table S1.3 the new steam raising boiler 5 (activity A4 table S1.1) shall not be operated until the following pre-operational measures have been completed.	
Reference	Operation - Pre-operational measures
PO01	Written confirmation that a decision to proceed with the project must be provided to the Agency at least 14 days prior to the commencement of any construction work associated with new steam raising boiler or associated fuel handling facilities.
PO02	Prior to the acceptance of any waste stream defined in Table S2.3 of this permit the operator shall submit written waste pre-acceptance and acceptance procedures in accordance with the requirements set out in sections 2.1.1 and 2.1.2 of Sector Guidance Note 5.06 (Guidance for the Recovery and Disposal of Hazardous and Non Hazardous Waste). These procedures shall be agreed in writing by the Agency prior to the acceptance of the waste.
PO03	The operator shall submit a written plan to the Agency detailing the ash sampling protocol to be used for Air Pollution Control (APC) residues and bottom ash, in conformance to Agency Guidance.
PO04	Boiler 5, activity A4 in table S1.1 of this permit shall not be operated unless the operator has submitted a report in writing to the Environment Agency for approval, demonstrating that the equipment installed, operating techniques, anticipated emission and fuel types remain consistent with the details provided in the original application which was duly made 3 June 2009 and that this continues to represent the Best Available Technique (BAT) for this installation.

Table S1.4B Pre-operational measures for future development		
There shall be no pre treatment or conditioning of bottom ash until the following pre-operational measure has been completed.		
Reference	Operation	Pre-operational measures
1	Ash conditioning and pre-treatment prior to off-site recovery or disposal	The operator shall provide a BAT justification for any equipment or techniques which are to be used for the pre-treatment / conditioning of the bottom ash prior to off-site recovery or disposal.

Schedule 2 – Waste types, raw materials and fuels

Table S2.1 Raw materials and fuels	
Raw materials and fuel description	Specification
Solid Recovered Fuel (SRF)	As detailed in information submitted 04/08/10 ^{Note 1}

Note 1: or otherwise agreed in writing with the Environment Agency

Table S2.2 Permitted waste types and quantities for production of specialist paper	
Waste code	Description
15	Waste packaging, absorbents, wiping cloths, filter materials and protective clothing not otherwise specified
15 01	packaging (including separately collected municipal packaging waste)
15 01 01	paper and cardboard packaging
19	Wastes from waste management facilities, off-site waste water treatment plants and the preparation of water intended for human consumption and water for industrial use
19 12	wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified
19 12 01	paper and cardboard
20	Municipal wastes (household waste and similar commercial, industrial and institutional wastes) including separately collected fractions
20 01	separately collected fractions (except 15 01)
20 01 01	paper and cardboard

Table S2.3 Permitted waste types and quantities for use as fuel in steam raising boiler 5	
Maximum quantity	Maximum Quantities and/or storage durations specified in the "Agreed Waste Acceptance Criteria" Maximum quantity 13,200 tonnes / year (total for all waste types including SRF)
Waste code	Description
02	Wastes from agriculture, horticulture, aquaculture, forestry, hunting and fishing, food preparation and processing
02 01	wastes from agriculture, horticulture, aquaculture, forestry, hunting and fishing
02 01 03	plant-tissue waste
02 01 04	waste plastics (except packaging)
02 01 07	wastes from forestry
03	Wastes from wood processing and the production of panels and furniture, pulp, paper and cardboard
03 01	wastes from wood processing and the production of panels and furniture
03 01 01	waste bark and cork
03 01 05	sawdust, shavings, cuttings, wood, particle board and veneer other than those mentioned in 03 01 04
03	Wastes from wood processing and the production of panels and furniture, pulp, paper and cardboard
03 03	wastes from pulp, paper and cardboard production and processing
03 03 01	waste bark and wood
03 03 07	mechanically separated rejects from pulping of waste paper and cardboard
03 03 08	wastes from sorting of paper and cardboard destined for recycling
03 03 11	sludges from on-site effluent treatment other than those mentioned in 03 03 10 (approx 4,500 tonnes per year max)
04	Wastes from the leather, fur and textile industries
04 02	wastes from the textile industry
04 02 15	wastes from finishing other than those mentioned in 04 02 14
04 02 21	wastes from unprocessed textile fibres
04 02 22	wastes from processed textile fibres
07	Wastes from organic chemical processes
07 02	wastes from the MFSU of plastics, synthetic rubber and man-made fibres
07 02 13	waste plastic

Table S2.3 Permitted waste types and quantities for use as fuel in steam raising boiler 5	
Maximum quantity	Maximum Quantities and/or storage durations specified in the "Agreed Waste Acceptance Criteria" Maximum quantity 13,200 tonnes / year (total for all waste types including SRF)
Waste code	Description
12	Wastes from shaping and physical and mechanical surface treatment of metals and plastics
12 01	wastes from shaping and physical and mechanical surface treatment of metals and plastics
12 01 05	plastics shavings and turnings
15	Waste packaging, absorbents, wiping cloths, filter materials and protective clothing not otherwise specified
15 01	packaging (including separately collected municipal packaging waste)
15 01 01	paper and cardboard packaging
15 01 02	plastic packaging
15 01 03	wooden packaging
15 01 05	composite packaging
15 01 06	mixed packaging
15 01 09	textile packaging
15 02	absorbents, filter materials, wiping cloths and protective clothing
15 02 03	absorbents, filter materials, wiping cloths and protective clothing other than those mentioned in 15 02 02
17	Construction and demolition wastes (including excavated soil from contaminated sites)
17 02	wood, glass and plastic
17 02 01	wood
17 02 03	plastic
19	Wastes from waste management facilities, off-site waste water treatment plants and the preparation of water intended for human consumption and water for industrial use
19 02	wastes from physico/chemical treatments of waste (including dechromatation, decyanidation, neutralisation)
19 02 03	premixed wastes composed only of non-hazardous wastes
19 02 10	combustible wastes other than those mentioned in 19 02 08 and 19 02 09 (e.g. Solid Recovered Fuel or other) (max 12,000 tonnes per year)
19 03	stabilised/solidified wastes
19 03 05	stabilised wastes other than those mentioned in 19 03 04
19 03 07	solidified wastes other than those mentioned in 19 03 06
19 05	wastes from aerobic treatment of solid wastes
19 05 01	non-composted fraction of municipal and similar wastes
19 09	wastes from the preparation of water intended for human consumption or water for industrial use
19 09 01	solid waste from primary filtration and screenings

Table S2.3 Permitted waste types and quantities for use as fuel in steam raising boiler 5	
Maximum quantity	Maximum Quantities and/or storage durations specified in the "Agreed Waste Acceptance Criteria" Maximum quantity 13,200 tonnes / year (total for all waste types including SRF)
Waste code	Description
19 12	wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified
19 12 01	paper and cardboard
19 12 04	plastic and rubber
19 12 07	wood other than that mentioned in 19 12 06
19 12 08	textiles
19 12 10	combustible waste (refuse derived fuel)
19 12 12	other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11
20	Municipal wastes (household waste and similar commercial, industrial and institutional wastes) including separately collected fractions
20 01	separately collected fractions (except 15 01)
20 01 01	paper and cardboard - Only if contaminated and otherwise destined for landfill
20 01 10	Clothes - Only if contaminated and otherwise destined for landfill
20 01 11	Textiles - Only if contaminated and otherwise destined for landfill
20 01 38	wood other than that mentioned in 20 01 37 - Only if contaminated and otherwise destined for landfill
20 01 39	Plastics - Only if contaminated and otherwise destined for landfill
20 02	garden and park wastes (including cemetery waste)
20 02 01	biodegradable waste - Only if contaminated and otherwise destined for landfill
20 03	other municipal wastes
20 03 01	mixed municipal waste - Only if contaminated and otherwise destined for landfill
20 03 07	bulky waste - Only if contaminated and otherwise destined for landfill

Note 1: Above wastes only permitted when agreed and incorporated into the "Waste Acceptance Criteria". Upon formal notification from the Environment Agency Individual wastes may be excluded from use as a fuel in steam raising boiler 5.

Schedule 3 – Emissions and monitoring

Table S3.1 Point source emissions to air – emission limits and monitoring requirements						
Emission point ref. & location	Source	Parameter	Limit (including unit) ^{Note 1}	Reference period Note 6	Monitoring frequency	Monitoring standard or method Note 2
A1	CHP Plant / Waste Heat Recovery Unit fired using gas or gas oil. Stack Height 28m	Oxides of Nitrogen (NO and NO ₂ expressed as NO ₂)	850 mg/m ³ 950 mg/m ³ (when gas oil firing)	Instantaneous / Spot Sample	Monthly Increases to weekly if gas oil firing	In house method as agreed.
A1	CHP Plant / Waste Heat Recovery Unit fired using gas or gas oil. Stack Height 28m	Carbon Monoxide	150 mg/m ³	Instantaneous / Spot Sample	Monthly	In house method as agreed.
A2	Steam Raising Boiler 2 - dual fuel gas or gas oil. Stack Height 26m	Oxides of Nitrogen (NO and NO ₂ expressed as NO ₂)	500 mg/m ³ 950 mg/m ³ (when gas oil firing)	Instantaneous / Spot Sample	Monthly ^{Note 7}	In house method as agreed.
A2	Steam Raising Boiler 2 - dual fuel gas or gas oil. Stack Height 26m	Carbon Monoxide	150 mg/m ³	Instantaneous / Spot Sample	Monthly ^{Note 7}	In house method as agreed.
A3	Steam Raising Boiler 3 - dual fuel gas oil or heavy fuel oil Stack Height 26m	Oxides of Nitrogen (NO and NO ₂ expressed as NO ₂)	500 mg/m ³	Instantaneous / Spot Sample	Monthly ^{Note 7}	In house method as agreed.
A3	Steam Raising Boiler 3 - dual fuel gas oil or heavy fuel oil Stack Height 26m	Carbon Monoxide	150mg/m ³	Instantaneous / Spot Sample	Monthly ^{Note 7}	In house method as agreed.
A4	Steam Raising Boiler 4 - dual fuel gas oil or heavy fuel oil Stack Height 26m	Oxides of Nitrogen (NO and NO ₂ expressed as NO ₂)	500mg/m ³	Instantaneous / Spot Sample	Monthly ^{Note 7}	In house method as agreed.

Table S3.1 Point source emissions to air – emission limits and monitoring requirements						
Emission point ref. & location	Source	Parameter	Limit (including unit) ^{Note 1}	Reference period ^{Note 6}	Monitoring frequency	Monitoring standard or method ^{Note 2}
A4	Steam Raising Boiler 4 - dual fuel gas oil or heavy fuel oil Stack Height 26m	Carbon Monoxide	150mg/m ³	Instantaneous / Spot Sample	Monthly ^{Note 7}	In house method as agreed.
A5	Steam Raising Boiler 5 fired on Solid Recovered Fuel and other non hazardous wastes as specified in table S2.3 (stack height 18m)	Oxides of Nitrogen (NO and NO ₂ expressed as NO ₂)	200 mg/m ³	Daily Mean	Continuous	BS EN 15267-3
A5	Steam Raising Boiler 5 fired on Solid Recovered Fuel and other non hazardous wastes as specified in table S2.3 (stack height 18m)	Oxides of Nitrogen (NO and NO ₂ expressed as NO ₂)	400 mg/m ³	½-hour mean	Continuous	BS EN 15267-3
A5	Steam Raising Boiler 5 fired on Solid Recovered Fuel and other non hazardous wastes as specified in table S2.3 (stack height 18m)	Particulate matter	10 mg/m ³	Daily Mean	Continuous	BS EN 15267-3
A5	Steam Raising Boiler 5 fired on Solid Recovered Fuel and other non hazardous wastes as specified in table S2.3 (stack height 18m)	Particulate matter	30 mg/m ³	½-hour mean	Continuous	BS EN 15267-3
A5	Steam Raising Boiler 5 fired on Solid Recovered Fuel and other non hazardous wastes as specified in table S2.3 (stack height 18m)	Total organic carbon (TOC)	10 mg/m ³	Daily Mean	Continuous	BS EN 15267-3
A5	Steam Raising Boiler 5 fired on Solid Recovered Fuel and other non hazardous wastes as specified in table S2.3 (stack height 18m)	Total organic carbon (TOC)	20 mg/m ³	½-hour mean	Continuous	BS EN 15267-3

Table S3.1 Point source emissions to air – emission limits and monitoring requirements						
Emission point ref. & location	Source	Parameter	Limit (including unit) <small>Note 1</small>	Reference period <small>Note 6</small>	Monitoring frequency	Monitoring standard or method <small>Note 2</small>
A5	Steam Raising Boiler 5 fired on Solid Recovered Fuel and other non hazardous wastes as specified in table S2.3 (stack height 18m)	Hydrogen chloride (HCl)	10 mg/m ³	Daily Mean	Continuous	BS EN 15267-3
A5	Steam Raising Boiler 5 fired on Solid Recovered Fuel and other non hazardous wastes as specified in table S2.3 (stack height 18m)	Hydrogen chloride (HCl)	60 mg/m ³	½-hour mean	Continuous	BS EN 15267-3
A5	Steam Raising Boiler 5 fired on Solid Recovered Fuel and other non hazardous wastes as specified in table S2.3 (stack height 18m)	Sulphur dioxide (SO ₂)	50 mg/m ³	Daily Mean	Continuous	BS EN 15267-3
A5	Steam Raising Boiler 5 fired on Solid Recovered Fuel and other non hazardous wastes as specified in table S2.3 (stack height 18m)	Sulphur dioxide (SO ₂)	200 mg/m ³	½-hour mean	Continuous	BS EN 15267-3
A5	Steam Raising Boiler 5 fired on Solid Recovered Fuel and other non hazardous wastes as specified in table S2.3 (stack height 18m)	Carbon monoxide (CO)	50 mg/m ³	Daily Mean	Continuous	BS EN 15267-3
A5	Steam Raising Boiler 5 fired on Solid Recovered Fuel and other non hazardous wastes as specified in table S2.3 (stack height 18m)	Carbon monoxide (CO)	100 mg/m ³	½-hour mean	Continuous	BS EN 15267-3
A5	Steam Raising Boiler 5 fired on Solid Recovered Fuel and other non hazardous wastes as specified in table S2.3 (stack height 18m)	Hydrogen fluoride (HF)	2 mg/m ³	Mean over minimum 1 hour period	Quarterly in first year. Then Bi-annual	ISO 15713

Table S3.1 Point source emissions to air – emission limits and monitoring requirements						
Emission point ref. & location	Source	Parameter	Limit (including unit) ^{Note 1}	Reference period ^{Note 6}	Monitoring frequency	Monitoring standard or method ^{Note 2}
A5	Steam Raising Boiler 5 fired on Solid Recovered Fuel and other non hazardous wastes as specified in table S2.3 (stack height 18m)	Cadmium and thallium and their compounds (total) ^{Note 3}	0.05 mg/m ³	Mean over period minimum 30 minutes maximum 8 hours	Quarterly in first year. Then Bi-annual	BS EN 14385
A5	Steam Raising Boiler 5 fired on Solid Recovered Fuel and other non hazardous wastes as specified in table S2.3 (stack height 18m)	Mercury and its compounds ^{Note 3}	0.05 mg/m ³	Mean over period minimum 30 minutes maximum 8 hours	Quarterly in first year. Then Bi-annual	BS EN 13211
A5	Steam Raising Boiler 5 fired on Solid Recovered Fuel and other non hazardous wastes as specified in table S2.3 (stack height 18m)	Sb, As, Pb, Cr, Co, Cu, Mn, Ni, V and their compounds (total) ^{Note 3}	0.5 mg/m ³	Mean over period minimum 30 minutes maximum 8 hours	Quarterly in first year. Then Bi-annual	BS EN 14385
A5	Steam Raising Boiler 5 fired on Solid Recovered Fuel and other non hazardous wastes as specified in table S2.3 (stack height 18m)	Dioxins / furans (I-TEQ) ^{Note 4}	0.1 ng/m ³	Mean over minimum 6 hours, maximum 8 hour period	Quarterly in first year. Then Bi-annual ^{Note 5}	BS EN 1948 1-3
A5	Steam Raising Boiler 5 fired on Solid Recovered Fuel and other non hazardous wastes as specified in table S2.3 (stack height 18m)	Ammonia (NH ₃)	-	-	Continuous	BS EN 15267-3
A5	Steam Raising Boiler 5 fired on Solid Recovered Fuel and other non hazardous wastes as specified in table S2.3 (stack height 18m)	Nitrous oxide (N ₂ O)	-	-	Continuous	BS EN 15267-3

Table S3.1 Point source emissions to air – emission limits and monitoring requirements						
Emission point ref. & location	Source	Parameter	Limit (including unit) ^{Note 1}	Reference period ^{Note 6}	Monitoring frequency	Monitoring standard or method ^{Note 2}
A5	Steam Raising Boiler 5 fired on Solid Recovered Fuel and other non hazardous wastes as specified in table S2.3 (stack height 18m)	Dioxin-like PCBs (WHO-TEQ Humans / Mammals) ^{Note 8}	-	-	Quarterly in the first year of operation. Then Bi-annual periodic measurement average value over sample period of between 6 and 8 hours.	BS EN/TS 1948-4
A5	Steam Raising Boiler 5 fired on Solid Recovered Fuel and other non hazardous wastes as specified in table S2.3 (stack height 18m)	Dioxin-like PCBs (WHO-TEQ Fish) ^{Note 8}	-	-	Quarterly in the first year of operation. Then Bi-annual periodic measurement average value over sample period of between 6 and 8 hours.	BS EN/TS 1948-4
A5	Steam Raising Boiler 5 fired on Solid Recovered Fuel and other non hazardous wastes as specified in table S2.3 (stack height 18m)	Dioxin-like PCBs (WHO-TEQ Birds) ^{Note 8}	-	-	Quarterly in the first year of operation. Then Bi-annual periodic measurement average value over sample period of between 6 and 8 hours.	BS EN/TS 1948-4

Table S3.1 Point source emissions to air – emission limits and monitoring requirements						
Emission point ref. & location	Source	Parameter	Limit (including unit) ^{Note 1}	Reference period ^{Note 6}	Monitoring frequency	Monitoring standard or method ^{Note 2}
A5	Steam Raising Boiler 5 fired on Solid Recovered Fuel and other non hazardous wastes as specified in table S2.3 (stack height 18m)	Specific individual poly-cyclic aromatic hydrocarbons (PAHs), as specified in Schedule 6.	-	-	Quarterly in the first year of operation. Then Bi-annual periodic measurement average value over sample period of between 6 and 8 hours.	Procedure shall use BS ISO 11338-1 and BS-ISO 11338-2.
A5	Steam Raising Boiler 5 fired on Solid Recovered Fuel and other non hazardous wastes as specified in table S2.3 (stack height 18m)	Dioxins / furans (WHO-TEQ Humans / Mammals) ^{Note 8}	-	-	Quarterly in the first year of operation. Then Bi-annual periodic measurement average value over sample period of between 6 and 8 hours.	BS EN/TS 1948
A5	Steam Raising Boiler 5 fired on Solid Recovered Fuel and other non hazardous wastes as specified in table S2.3 (stack height 18m)	Dioxins / furans (WHO-TEQ Fish) ^{Note 8}	-	-	Quarterly in the first year of operation. Then Bi-annual periodic measurement average value over sample period of between 6 and 8 hours.	BS EN/TS 1948

Table S3.1 Point source emissions to air – emission limits and monitoring requirements

Emission point ref. & location	Source	Parameter	Limit (including unit) <small>Note 1</small>	Reference period <small>Note 6</small>	Monitoring frequency	Monitoring standard or method <small>Note 2</small>
A5	Steam Raising Boiler 5 fired on Solid Recovered Fuel and other non hazardous wastes as specified in table S2.3 (stack height 18m)	Dioxins / furans (WHO-TEQ Birds) <small>Note 8</small>	-	-	Quarterly in the first year of operation. Then Bi-annual periodic measurement average value over sample period of between 6 and 8 hours.	BS EN/TS 1948

Note 1: See Schedule 7 for reference conditions.

Note 2: MCERTS certification to the appropriate ranges and determinands is a demonstration of compliance to the applicable standards.

Note 3: Metals include gaseous, vapour and solid phases as well as their compounds (expressed as the metal or the sum of the metals as specified). Sb, As, Pb, Cr, Co, Cu, Mn, Ni and V mean antimony, arsenic, lead, chromium, cobalt, copper, manganese, nickel and vanadium respectively.

Note 4: The TEQ sum of the equivalence factors to be reported as a range based on: All congeners less than the detection limit assumed to be zero as a minimum, and all congeners less than the detection limit assumed to be at the detection limit as a maximum.

Note 5: At least one monitoring result shall be reported within three months of first burning waste.

Note 6: The reference period shall be a period of representative operation for periodic monitoring.

Note 7: Unless agreed otherwise agreed and justified on the basis of hours of operation.

Note 8: The TEQ sum of the equivalence factors to be reported as a range based on: All congeners less than the detection limit assumed to be zero as a minimum, and all congeners less than the detection limit assumed to be at the detection limit as a maximum.

Table S3.1(a) Point source emissions to air during abnormal operation of incineration plant – emission limits and monitoring requirements						
Emission point ref. & location	Parameter	Source	Limit (including unit)	Reference period <small>Note 1</small>	Monitoring frequency	Monitoring standard or method
A5	Particulate matter	Steam Raising Boiler (5) fired on Solid Recovered Fuel and other non hazardous wastes as specified in table S2.3 (stack height 18m)	150 mg/m ³	½-hr average	Continuous measurement	BS EN 15267-3 during abatement plant failure
A5	Total Organic Carbon (TOC)	Steam Raising Boiler (5) fired on Solid Recovered Fuel and other non hazardous wastes as specified in table S2.3 (stack height 18m)	20 mg/m ³	½-hr average	Continuous measurement	BS EN 15267-3 during abatement plant failure
A5	Carbon monoxide	Steam Raising Boiler (5) fired on Solid Recovered Fuel and other non hazardous wastes as specified in table S2.3 (stack height 18m)	100 mg/m ³	½-hr average	Continuous measurement	BS EN 15267-3 during abatement plant failure

Note 1: See Schedule 7 for reference conditions.

Table S3.2 Point Source emissions to water (other than sewer) and land – emission limits and monitoring requirements						
Emission point ref. & location	Source	Parameter	Limit (incl. unit)	Reference Period	Monitoring frequency	Monitoring standard or method
W1 Discharge to River Kent at NGR (SD 5052 9580)	Cooling Water from CHP	Daily flow	6480 m ³	24 hr	Monthly	Note 1
		Instantaneous Flow	75 l/s	Second	Monthly	Note 1
		Temperature	30°C	Second	Continuous	Probe calibrated against known standard
		Oil & Grease	None Visible	Spot Sample	Daily	Visual Inspection
W2 Discharge to River Kent via Mill Race	Overflow from Process Water Tank Discharge of abstracted river water (without treatment)	No parameters set	as abstracted river water	-	-	-
W3 Discharge to River Kent via Mill Race	Freeze protection for Joiners Shop Header Tank Overflow. Discharge of abstracted river water (without treatment)	No parameters set	as abstracted river water	-	-	-

Note 1: Instantaneous Flow rate fixed – daily flow calculated based on hours of operation.

Table S3.3 Point source emissions to sewer, effluent treatment plant or other transfers off-site- emission limits and monitoring requirements						
Emission point ref. & location	Source	Parameter	Limit (incl. Unit)	Reference period	Monitoring frequency	Monitoring standard or method
S1 Discharge from Effluent treatment Plant to Untied Utilities Foul Sewer at NGR SD 5072 9551	Effluent Treatment plant	Hazardous Pollutants screen ^{Note 1}	No Limit set	24hr flow proportional composite sample	Biannually	GCMS analysis to be carried out by UKAS accredited laboratory
S1 Discharge from Effluent treatment Plant to Untied Utilities Foul Sewer at NGR SD 5072 9551	Effluent Treatment plant	Metals Total and Dissolved (Zn, Cu, Cd, Pb, Ni, Hg)	No Limit set	Spot sample	Twice a year	BS EN ISO 15586 BS EN ISO 17294 BS EN ISO 17852 for Hg only

Note 1: Hazardous pollutants screen substances are: Chlorpyrifos, Cypermethrin, Endosulphan (A & B), 4-nonylphenols & Nonylphenol ethoxylates, PCP, TBT.

Table S3.4 Annual limits		
Substance	Medium	Limit (including unit)
-	-	-

Table S3.5 Surface water or groundwater monitoring requirements				
Emission point reference or source or description of point of measurement	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
Check the end of the mill race	Appearance / evidence of pollution	Daily when mill operational	Visual Inspection	written record required

Table S3.6 Process monitoring requirements				
Emission point reference or source or description of point of measurement	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
Abstracted water inlet(s)	Hazardous Pollutants screen Note 1	Twice per annum as per discharge monitoring	GCMS analysis at UKAS accredited laboratory	Spot sample
S1 Discharge from Effluent treatment Plant to Untied Utilities Foul Sewer at NGR SD 5072 9551	Chemical oxygen demand (COD)	monthly	BS ISO 15705	Daily composite sample (flow proportional) or as otherwise agreed with the Environment Agency
S1 Discharge from Effluent treatment Plant to Untied Utilities Foul Sewer at NGR SD 5072 9551	Total suspended solids (TSS)	monthly	BS EN 872	Daily composite sample (flow proportional) or as otherwise agreed with the Environment Agency
Installation	Wind speed and direction Note2	Continuous	Anemometer	Location to be agreed with the Environment Agency
Steam Raising Boiler (5) – Combustion chamber	Temperature (°C)	Continuous	Traceable to National Standards	As agreed in writing with the Environment Agency
Steam Raising Boiler (5)	Exhaust gas temperature	continuous	BS EN 15267-3	-
Steam Raising Boiler (5)	Exhaust gas pressure	continuous	BS EN 15267-3	-
Steam Raising Boiler (5)	Exhaust gas oxygen content	continuous	BS EN 15267-3	-
Steam Raising Boiler (5)	Exhaust gas water vapour content	continuous	BS EN 15267-3	-
Steam Raising Boiler (5)	Exhaust gas flow rate	continuous	BS EN 15267-3	-

Table S3.6 Process monitoring requirements				
Emission point reference or source or description of point of measurement	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
All wastes, Paper Sludges or SRF used as a fuel in Steam Raising Boiler (5)	Total heavy metal content (Antimony, Cadmium, Thallium, Mercury, Lead, Chromium, Copper, Manganese, Nickel, Arsenic, Cobalt, Vanadium, Zinc) and their compounds	Minimum of Monthly when used as a fuel unless otherwise agreed and justified using consistent monitoring data	As agreed in writing with the Environment Agency	To be incorporated in agreed Waste Acceptance Criteria

Note 1: Hazardous pollutants screen substances are: Chlorpyrifos, Cypermethrin, Endosulphan (A & B), 4-nonylphenols & Nonylphenol ethoxylates, PCP, TBT.

Note 2: Commencing upon commissioning of steam raising boiler 5.

Table S3.7 Residue quality					
Emission point reference or source or description of point of measurement	Parameter	Limit	Monitoring frequency	Monitoring standard or method	Other specifications
Bottom Ash	Loss on ignition (LOI) Or TOC if Agreed in writing	LOI 5%	Monthly for the first year of operation and quarterly thereafter	Environment Agency ash sampling protocol.	-
Bottom Ash	Metals (Antimony, Cadmium, Thallium, Mercury, Lead, Chromium, Copper, Manganese, Nickel, Arsenic, Cobalt, Vanadium, Zinc) and their compounds, dioxins/furans and dioxin-like PCBs.	-	Monthly in the first year of operation. Then quarterly	Sampling and analysis as per Environment Agency ash sampling protocol.	-
Bottom Ash	Total soluble fraction and metals (Antimony, Cadmium, Thallium, Mercury, Lead, Chromium, Copper, Manganese, Nickel, Arsenic, Cobalt, Vanadium, Zinc) soluble fractions	-	Before use of a new disposal or recycling route	Sampling and analysis as per Environment Agency ash sampling protocol.	-
APC Residues	Metals (Antimony, Cadmium, Thallium, Mercury, Lead, Chromium, Copper, Manganese, Nickel, Arsenic, Cobalt, Vanadium, Zinc) and their compounds, dioxins/furans and dioxin-like PCBs.	-	Monthly in the first year of operation. Then Quarterly	Sampling and analysis as per Environment Agency ash sampling protocol.	-
APC Residues	Total soluble fraction and metals (Antimony, Cadmium, Thallium, Mercury, Lead, Chromium, Copper, Manganese, Nickel, Arsenic, Cobalt, Vanadium, Zinc) soluble fractions	-	Before use of a new disposal or recycling route	Sampling and analysis as per Environment Agency ash sampling protocol.	-

Schedule 4 – Reporting

Parameters, for which reports shall be made, in accordance with conditions of this permit, are listed below.

Table S4.1 Reporting of monitoring data			
Parameter	Emission or monitoring point/reference	Reporting period	Period begins
Emissions to air Parameters as required by condition 3.5.1.	A1 to A4	Bi-annually	1 January
	A5 ^{Note 1}	Quarterly in the first year of operation. Then Bi-annual	Operation of boiler 5
Emissions to water Parameters as required by condition 3.5.1	W1	Bi-annually	1 January
Emissions to sewer Parameters as required by condition 3.5.1	S1	Bi-annually	1 January
LOI (or TOC if agreed) Parameters as required by condition 3.5.1	Bottom Ash	Every 3 months but monthly for the first year of operation	Operation of boiler 5
Metals (Antimony, Cadmium, Thallium, Mercury, Lead, Chromium, Copper, Manganese, Nickel, Arsenic, Cobalt, Vanadium, Zinc) and their compounds, dioxins/furans and dioxin-like PCBs Parameters as required by condition 3.5.1	Bottom Ash	Every 3 months but monthly for the first year of operation	Operation of boiler 5
Total soluble fraction and metals (Antimony, Cadmium, Thallium, Mercury, Lead, Chromium, Copper, Manganese, Nickel, Arsenic, Cobalt, Vanadium, Zinc) soluble fractions Parameters as required by condition 3.5.1	Bottom Ash	Before use of a new disposal or recycling route	Operation of boiler 5
Metals (Antimony, Cadmium, Thallium, Mercury, Lead, Chromium, Copper, Manganese, Nickel, Arsenic, Cobalt, Vanadium, Zinc) and their compounds, dioxins/furans and dioxin-like PCBs Parameters as required by condition 3.5.1	APC Residues	Every 3 months but monthly for the first year of operation	Operation of boiler 5

Table S4.1 Reporting of monitoring data			
Parameter	Emission or monitoring point/reference	Reporting period	Period begins
Total soluble fraction and metals (Antimony, Cadmium, Thallium, Mercury, Lead, Chromium, Copper, Manganese, Nickel, Arsenic, Cobalt, Vanadium, Zinc) soluble fractions Parameters as required by condition 3.5.1	APC Residues	Before use of a new disposal or recycling route	Operation of boiler 5
Functioning and monitoring of the incineration plant as required by condition 4.2.2		Annually	1 January Operation of boiler 5

Note 1: Combustion chamber temperature and exhaust gas temperature, pressure, oxygen content, water content and flow rate would not normally require to be reported, but would be available for inspection at the site. Only where there is an operational need for a report to be made should one be required.

Table S4.2: Annual production/treatment	
Parameter	Units
Total waste received for use as a fuel in boiler 5	tonnes
Total mass of SRF received for use as a fuel in boiler 5	tonnes

Table S4.3 Performance parameters			
Parameter	Frequency of assessment	Units	Units
Water inputs to the Mill ^{Note 1}	Annually	tonnes	m ³ /t
Water used in manufacturing ^{Note 1}	Annually	tonnes	m ³ /t
Other inputs of water/moisture ^{Note 1}	Annually	tonnes	m ³ /t
Water outputs ^{Note 1}	Annually	tonnes	m ³ /t
Waste/raw material inputs ^{Note 1}	Annually	tonnes	
Waste/raw material outputs ^{Note 1}	Annually	tonnes	
Net total annual production ^{Note 1}	Annually	tonnes	
Total mass release of oxides of nitrogen	Annually	tonnes	
Number of abnormal operation events and total of abnormal operation hours	Quarterly	Number and hours	
Auxiliary fuel used (boiler 5)	Annually	Natural Gas MWh Gas Oil MWh	

Table S4.3 Performance parameters			
Parameter	Frequency of assessment	Units	Units
Total urea used (boiler 5)	Annually	Kg	
Sodium bicarbonate used (boiler 5)	Annually	Kg	
Total activated carbon used (boiler 5)	Annually	Kg	
Total Air Pollution Control residues disposed of	Annually	Tonnes	
Total bottom ash generated	Annually	Tonnes	
Total bottom ash recycled	Annually	Tonnes	
Total bottom ash disposed of	Annually	Tonnes	
Auxiliary Burner Usage (hours or actual fuel use agree with site) (boiler 5)	-	-	

Note 1: All to be monitored and reported in accordance with associated guidance note issued with the permit.

Table S4.4 Reporting forms		
Media/parameter	Reporting format	Date of form
Air (boilers 1 to 4)	Form air 1 or other form as agreed in writing by the Environment Agency	2016
Air (boiler 5)	Forms Air 2 and Air 3 or other form as agreed in writing by the Environment Agency	2016
Water (cooling water from CHP only)	Form Water 1 or other form as agreed in writing by the Environment Agency	2016
Sewer	Form Sewer 1 or other form as agreed in writing by the Environment Agency	2016
Residues – Bottom ash/APC	Form Residue 1 or other form as agreed in writing by the Environment Agency	2016
Other performance indicators	Form Performance 1 or other form as agreed in writing by the Environment Agency	2016

Note 1: Forms A2, A3 and R1 not required prior to commissioning of boiler 5.

Schedule 5 – Notification

These pages outline the information that the operator must provide.

Units of measurement used in information supplied under Part A and B requirements shall be appropriate to the circumstances of the emission. Where appropriate, a comparison should be made of actual emissions and authorised emission limits.

If any information is considered commercially confidential, it should be separated from non-confidential information, supplied on a separate sheet and accompanied by an application for commercial confidentiality under the provisions of the EP Regulations.

Part A

Permit Number	EPR/BJ7620ID
Name of operator	James Cropper PLC
Location of Facility	Burneside Mills
Time and date of the detection	

(a) Notification requirements for any malfunction, breakdown or failure of equipment or techniques, accident, or emission of a substance not controlled by an emission limit which has caused, is causing or may cause significant pollution	
To be notified within 24 hours of detection	
Date and time of the event	
Reference or description of the location of the event	
Description of where any release into the environment took place	
Substances(s) potentially released	
Best estimate of the quantity or rate of release of substances	
Measures taken, or intended to be taken, to stop any emission	
Description of the failure or accident.	

(b) Notification requirements for the breach of a limit	
To be notified within 24 hours of detection unless otherwise specified below	
Emission point reference/ source	
Parameter(s)	
Limit	
Measured value and uncertainty	
Date and time of monitoring	
Measures taken, or intended to be taken, to stop the emission	

Time periods for notification following detection of a breach of a limit	
Parameter	Notification period

(c) Notification requirements for the detection of any significant adverse environmental effect	
To be notified within 24 hours of detection	
Description of where the effect on the environment was detected	
Substances(s) detected	
Concentrations of substances detected	
Date of monitoring/sampling	

Part B – to be submitted as soon as practicable

Any more accurate information on the matters for notification under Part A.	
Measures taken, or intended to be taken, to prevent a recurrence of the incident	
Measures taken, or intended to be taken, to rectify, limit or prevent any pollution of the environment which has been or may be caused by the emission	
The dates of any unauthorised emissions from the facility in the preceding 24 months.	

Name*	
Post	
Signature	
Date	

* authorised to sign on behalf of the operator

Schedule 6

Interpretation for activity references A1 and A2 (Table S1.1)

“accident” means an accident that may result in pollution.

“ADt” means Air Dried Tonnes (of pulp) expressed as 90% dryness. ADt for paper should be reported at “normal” or average moisture content for the production over the course of any one year, noted but not corrected.

AOX is adsorbable organic halides measured according to the EN ISO:9562 standard method for waste waters.

“application” means the application for this permit, together with any additional information supplied by the operator as part of the application and any response to a notice served under Schedule 5 to the EP Regulations.

“authorised officer” means any person authorised by the Environment Agency under section 108(1) of The Environment Act 1995 to exercise, in accordance with the terms of any such authorisation, any power specified in section 108(4) of that Act.

“emissions to land” includes emissions to groundwater.

“EP Regulations” means The Environmental Permitting (England and Wales) Regulations SI 2010 No.675 and words and expressions used in this permit which are also used in the Regulations have the same meanings as in those Regulations.

“emissions of substances not controlled by emission limits” means emissions of substances to air, water or land from the activities, either from the emission points specified in schedule 3 or from other localised or diffuse sources, which are not controlled by an emission limit.

“groundwater” means all water, which is below the surface of the ground in the saturation zone and in direct contact with the ground or subsoil.

“Industrial Emissions Directive” means DIRECTIVE 2010/75/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 24 November 2010 on industrial emissions

“MCERTS” means the Environment Agency’s Monitoring Certification Scheme.

Metals monitoring as follows: Zn (Zinc), Cu (Copper), Cd (Cadmium), Pb (Lead), Ni (Nickel), Hg (Mercury).

Net production is as follows:

- i) For paper mills: the unpacked, saleable production after the last slitter winder, i.e. before converting.
- (ii) For off-line coaters: production after coating.
- (iii) For tissue mills: saleable tonnes after the tissue machine before any rewinding processes and excluding any core.
- (iv) For market pulp mills: tonnage after packing (pulp at 90 % dryness, i.e. 'air dry' - AD).
- (v) For integrated pulp mills: net pulp production refers to the tonnage after packing (pulp at 90 % dryness, i.e. AD) plus the pulp transferred to the paper mill (pulp calculated at 90 % dryness, i.e. air dry). For the net paper production of the integrated mill refer to (i)

“quarter” means a calendar year quarter commencing on 1 January, 1 April, 1 July or 1 October.

Total nitrogen (Tot-N). Total nitrogen (Tot-N) given as N, The sum of organic nitrogen, free ammonia and ammonium (NH₄⁺-N), nitrites (NO₂⁻-N) and nitrates (NO₃⁻-N).

Total phosphorus (Tot-P). Total phosphorus (Tot-P) given as P, includes dissolved phosphorus plus any insoluble phosphorus carried over into the effluent in the form of precipitates or within microbes.

“Waste code” means the six digit code referable to a type of waste in accordance with the List of Wastes (England) Regulations 2005, or List of Wastes (Wales) Regulations 2005, as appropriate, and in relation to hazardous waste, includes the asterisk.

“Waste Framework Directive” or “WFD” means Waste Framework Directive 2008/98/EC of the European Parliament and of the Council on waste

Where a minimum limit is set for any emission parameter, for example pH, reference to exceeding the limit shall mean that the parameter shall not be less than that limit.

Unless otherwise stated, any references in this permit to concentrations of substances in emissions into air means:

- in relation to emissions from combustion processes, the concentration in dry air at a temperature of 273K, at a pressure of 101.3 kPa and with an oxygen content of 3% dry for liquid and gaseous fuels, 6% dry for solid fuels; and/or
- in relation to emissions from non-combustion sources, the concentration at a temperature of 273K and at a pressure of 101.3 kPa, with no correction for water vapour content.

“year” means calendar year ending 31 December.

Interpretation for activity reference A4 (Table S1.1)

“abatement equipment” means that equipment dedicated to the removal of polluting substances from releases from the installation to air or water media;

“abnormal operation” means any technically unavoidable stoppages, disturbances, or failures of the abatement plant or the measurement devices other than continuous emission monitors for releases to air of particulates, TOC and/or CO, during which the concentrations in the discharges into air and the purified waste water of the regulated substances may exceed the normal emission limit values;

“APC residues” means air pollution control residues;

“bi-annual” means twice per year with at least five months between tests;

“bottom ash” means ash falling through the grate or transported by the grate;

“CEM” Continuous emission monitor;

“CEN” means Comité Européen de Normalisation;

“daily average” for releases of substances to air means the average of valid half-hourly averages over a calendar day or consecutive discrete periods of 24 hours as described in the application / agreed with the Environment Agency during normal operation;

“dioxin and furans” means polychlorinated dibenzo-p-dioxins and polychlorinated dibenzofurans;

“incineration line” means all of the incineration equipment related to a common discharge to air location;

“ISO” means International Standards Organisation;

“LOI” means loss on ignition a technique used to determine the combustible material by heating the ash residue to a high temperature;

“PAH” means Poly-cyclic aromatic hydrocarbon, and comprises Anthanthrene, Benzo[a]anthracene, Benzo[b]fluoranthene, Benzo[k]fluoranthene, Benzo[b]naph(2,1-d)thiophene, Benzo[c]phenanthrene, Benzo[ghi]perylene, Benzo[a]pyrene, Cholanthrene, Chrysene, Cyclopenta[c,d]pyrene, Dibenz[ah]anthracene, Dibenz[a,i]pyrene Fluoranthene, Indo[1,2,3-cd]pyrene, Naphthalene

“PCB” means Polychlorinated Biphenyl. Dioxin-like PCBs are the non-ortho and mono-ortho PCBs listed in the table below;

“quarterly” for reporting/sampling means after/during each 3 month period, January to March; April to June; July to September and October to December and, when sampling, with at least 2 months between each sampling date;

“shut down” is any period where the plant is being returned to a non-operational state and there is no waste being burned as described in the application or agreed in writing with the Environment Agency;

“start up” is any period, where the plant has been non-operational, after igniting the auxiliary burner until waste has been fed to the plant in sufficient quantity to cover the grate and to initiate steady-state conditions as described in the application or agreed in writing with the Environment Agency;

“TOC” means Total Organic Carbon. In respect of releases to air, this means the gaseous and vaporous organic substances, expressed as TOC. In respect of Bottom Ash, this means the total carbon content of all organic species present in the ash (excluding carbon in elemental form);

“Waste Incineration Directive” means Directive 2000/76/EC on the incineration of waste (O.J. L 332, 28.12.2000)

Where a minimum limit is set for any emission parameter, for example pH, reference to exceeding the limit shall mean that the parameter shall not be less than that limit.

Unless otherwise stated, any references in this permit to concentrations of substances in emissions into air means:

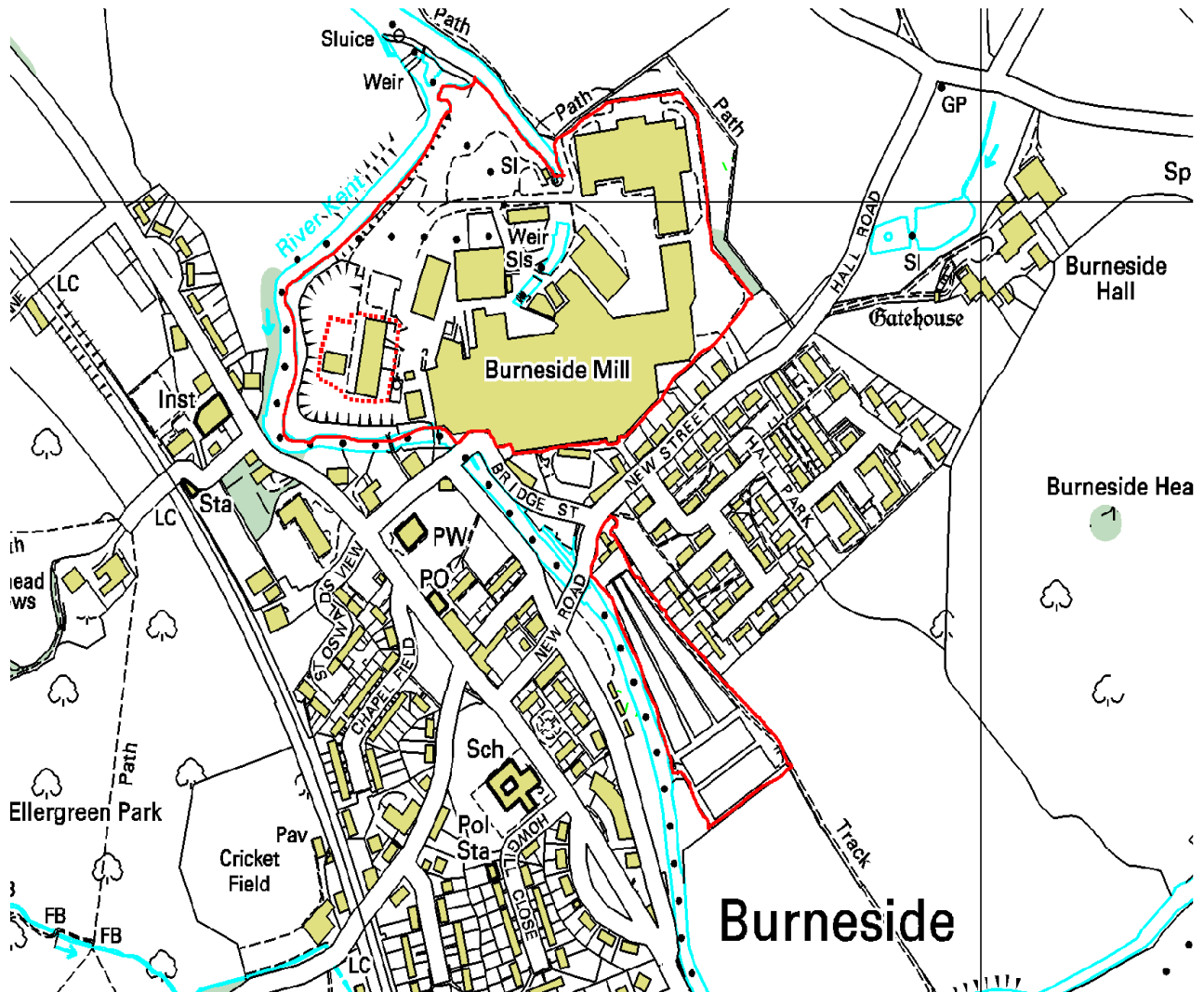
- (a) in relation to gases from incineration plants other than those burning waste oil, the concentration in dry air at a temperature of 273K, at a pressure of 101.3 kPa and with an oxygen content of 11% dry.

For dioxins/furans and dioxin-like PCBs the determination of the toxic equivalence concentration (I-TEQ, & WHO-TEQ for dioxins/furans, WHO-TEQ for dioxin-like PCBs) stated as a release limit and/ or reporting requirement, the mass concentrations of the following congeners have to be multiplied with their respective toxic equivalence factors before summing. When reporting on measurements of dioxins/furans and dioxin-like PCBs, the toxic equivalence concentrations should be reported as a range based on: all congeners less than the detection limit assumed to be zero as a minimum, and all congeners less than the detection limit assumed to be at the detection limit as a maximum.

TEF schemes for dioxins and furans				
Congener	I-TEF(1990)	WHO-TEF (1997/8)		
		Humans / Mammals	Fish	Birds
Dioxins				
2,3,7,8-TCDD	1	1	1	1
1,2,3,7,8-PeCDD	0.5	1	1	1
1,2,3,4,7,8-HxCDD	0.1	0.1	0.5	0.05
1,2,3,6,7,8-HxCDD	0.1	0.1	0.01	0.01
1,2,3,7,8,9-HxCDD	0.1	0.1	0.01	0.1
1,2,3,4,6,7,8-HpCDD	0.01	0.01	0.001	<0.001
OCDD	0.001	0.0001	-	-
Furans				
2,3,7,8-TCDF	0.1	0.1	0.05	1
1,2,3,7,8-PeCDF	0.05	0.05	0.05	0.1
2,3,4,7,8-PeCDF	0.5	0.5	0.5	1
1,2,3,4,7,8-HxCDF	0.1	0.1	0.1	0.1
1,2,3,7,8,9-HxCDF	0.1	0.1	0.1	0.1
1,2,3,6,7,8-HxCDF	0.1	0.1	0.1	0.1
2,3,4,6,7,8-HxCDF	0.1	0.1	0.1	0.1
1,2,3,4,6,7,8-HpCDF	0.01	0.01	0.01	0.01
1,2,3,4,7,8,9-HpCDF	0.01	0.01	0.01	0.01
OCDF	0.001	0.0001	0.0001	0.0001

TEF schemes for dioxin-like PCBs			
Congener	WHO-TEF (1997/8)		
	Humans / mammals	Fish	Birds
Non-ortho PCBs			
3,4,4',5-TCB (81)	0.0001	0.0005	0.1
3,3',4,4'-TCB (77)	0.0001	0.0001	0.05
3,3',4,4',5 - PeCB (126)	0.1	0.005	0.1
3,3',4,4',5,5'-HxCB(169)	0.01	0.00005	0.001
Mono-ortho PCBs			
2,3,3',4,4'-PeCB (105)	0.0001	<0.000005	0.0001
2,3,4,4',5-PeCB (114)	0.0005	<0.000005	0.0001
2,3',4,4',5-PeCB (118)	0.0001	<0.000005	0.00001
2',3,4,4',5-PeCB (123)	0.0001	<0.000005	0.00001
2,3,3',4,4',5-HxCB (156)	0.0005	<0.000005	0.0001
2,3,3',4,4',5'-HxCB (157)	0.0005	<0.000005	0.0001
2,3',4,4',5,5'-HxCB (167)	0.00001	<0.000005	0.00001
2,3,3',4,4',5,5'-HpCB (189)	0.0001	<0.000005	0.00001

Schedule 7 – Site plan



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