Variation notice with introductory note

Environmental Permitting (England & Wales) Regulations 2010

Shotton Paper Mill

UPM-Kymmene UK Ltd
Weighbridge Road
Shotton
Deeside
Flintshire
CH5 2LL

Variation notice number
EPR/BT4885IT/V008

Permit number

BT4885IT

Shotton Paper Mill
Permit number EPR/BT4885IT

Introductory note

This introductory note does not form a part of the permit

The following notice, which is issued pursuant to regulation 20 and Part 1 of Schedule 5 of the Environmental Permitting (England and Wales) Regulations 2010 S.I.2010 No. 675 (the Regulations), gives notice of the variation of an environmental permit to operate a regulated facility.

This variation reflects the fact that the Operator wishes to add additional specified sources of non-hazardous wastes as fuel to the renewable fuels boiler. The boiler was built according to the requirements of the Waste Incineration Directive 2000/76/EC. Fuels Testing Protocol and Waste Acceptance Procedures included in the variation application will be utilised to control the quality of materials sent to the incinerator. Written permission from the Environment Agency is required before any burning trials can commence.

Additionally, this variation adds a Dry Materials Recovery Facility (MRF) as a directly associated activity to the Section 6.1 Part (A)1 activity: producing in an industrial plant paper and board where the plant has a production capacity of more than 20 tonnes per day. The MRF will have a capacity to sort 300,000 tonnes per annum of dry co-mingled recyclates, which will be delivered to the site from a number of different commercial and municipal collections. The recyclates will principally comprise of paper, but will also contain tins, glass, cards and plastics. The purpose of the facility is to provide a higher quality paper source for recycling on-site, with other recyclates being removed for recycling off-site.

Schedule 1 of this notice lists any deleted conditions, Schedule 2 lists any amended conditions, Schedule 3 lists any conditions that have been added and Schedule 4 shows any changes to the plan.

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

Status Log of the permit		
Detail	Date	Response Date
Application BT4885	Duly made 11/10/02	
Permit determined BT4885	07/02/03	
Application for variation	Received 31/07/03	
Duly made	31/07/03	
Response to request for information	19/09/03	23/09/03
Response to request for information	25/09/03	01/10/03
Response to request for information	25/09/03 & 06/10/03	15/10/03
Variation BV4916	Determined 05/11/03	
Application for variation	Received 29/04/05	
Variation JP3030LM	Issued 16/12/2005	
Application for variation	Received 12/07/06	
Response to request for information	Received 14/07/06	
Variation WP3031LR	Issued 17/07/06	
Application for variation	Received 28/11/05	
Response to request for information	25/04/06	26/05/06
Variation PP3936SQ	Issued 11/08/06	
Variation notice NP3739XM issued	Issued 17/12/07	
Application for variation	Received 29/12/09	
Response to request for information	06/01/10	01/03/10
Variation EA/EPR/BT4885IT/V006	Issued 12/05/10	
Application for Partial Surrender	Duly Made 24/02/10	
Partial Surrender Notice EPR/BT4885IT/S007 issued	19/05/10	
Application for variation	Duly Made 10/05/10	
Variation EPR/BT4885IT/V008	01/11/10	

End of Introductory Note

Notice of variation

Environmental Permitting
(England and Wales) Regulations 2010

Permit number

EPR/BT4885IT

The Environment Agency in exercise of its powers under Regulation 20 of the Environmental Permitting (England and Wales) Regulations 2010 (SI 2010 No 675) varies the permit as set out below.

UPM-Kymmene UK LTD

whose registered office

Meadowhead Road
Shewalton
Irvine
Scotland
KA11 5AT

company registration number SC 102969

holds a permit to operate a regulated facility at

Shotton Paper Mill
Weighbridge Road
Shotton
Deeside
Flintshire
CH5 2LL

and that permit is varied to the extent set out in Schedules 1 to 4 of this notice.

The notice shall take effect from 01/11/10

Name	Date
M Bischer	01/11/10

Authorised on behalf of the Environment Agency

Schedule – conditions to be deleted

All existing conditions and schedules of the Permit BT4885.

Schedule – conditions to be amended

None.

Schedule – conditions to be added

The following conditions are added to the permit.

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.

1.1.4 The operator shall comply with the requirements of an approved competence scheme.

1.1.5 All plant, equipment and technical means used in operating the Permitted Installation shall be maintained in good operating condition.

1.1.6 All staff shall be fully conversant with those aspects of the Permit conditions, which are relevant to their duties and shall be provided with appropriate training and written operating instructions to enable them to carry out their duties.

1.2 Energy efficiency

1.2.1 For the following activities referenced in schedule 1, table S1.1 A1 to A5 the operator shall:

(a) take appropriate measures to ensure that 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.

1.2.2 The Operator shall have an energy efficiency plan which shall be updated annually.

1.3 Efficient use of raw materials

1.3.1 For the following activities referenced in schedule 1, table S1.1 A1 to A5 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 For the following activities referenced in schedule 1, table S1.1 A1 to A5 the operator shall:

(a) take appropriate measures to ensure that waste produced by the activities is avoided or reduced, or where waste is produced it is recovered wherever practicable or otherwise disposed of in a manner which minimises its impact on the environment;

(b) review and record at least every four years whether changes to those measures should be made; and

(c) 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 For the following activities referenced in schedule 1, table S1.1 A5 (the Dry Materials Recycling Facility) 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 green on the site plan at schedule 7 to this permit.

2.3 Operating techniques

2.3.1 (a) For the following activities referenced in schedule 1, table S1.1 A1 to A5 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.

(b) 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 specified in schedule 1, table S1.2 or otherwise required under this permit, 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.

2.3.2 Waste shall only be accepted if:

(a) it is of a type and quantity listed in schedule 2 tables S2.1, S2.2 and S2.3; and

(b) it conforms to the description in the documentation supplied by the producer and holder.

2.3.3 Any raw materials or fuels listed in schedule 2 table S2.1 shall conform to the specifications set out in that table.

2.3.4 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.

2.3.5 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.

2.3.6 For the following activities referenced in schedule 1, table S1.1 A3 waste shall not be charged, or shall cease to be charged, if:

(a) the combustion chamber temperature is below, or falls below 850^{o}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 WID 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 WID abnormal operating conditions.

2.3.7 For the following activities referenced in schedule 1, table S1.1 A3 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 2.3.6, as long as incompletely burned waste is present in the combustion chamber. Unless the temperature specified in condition 2.3.6 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.

2.3.8 For the following activities referenced in schedule 1, table S1.1 A3 the operator shall record the beginning and end of each period of “WID abnormal operation”.

2.3.9 For the following activities referenced in schedule 1, table S1.1 A3 during a period of “WID abnormal operation”, the operator shall restore normal operation of the failed equipment or replace the failed equipment as rapidly as possible.

2.3.10 For the following activities referenced in schedule 1, table S1.1 A3 where, during “WID abnormal operation”, any of the following situations arise, the operator shall, as soon as is practicable, cease the burning of waste 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 “WID abnormal operation” periods over 1 calendar year exceeds 60 hours on an incineration line;

(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 "WID abnormal operation" emission limit value(s) in schedule 3 table S3.1 (a), as detailed in the application or as agreed in writing with the Environment Agency, are unavailable.

2.3.11 For the following activities referenced in schedule 1, table S1.1 A3 the operator shall interpret the end of the period of "WID 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 "WID abnormal operation" has been reached for a given incineration line.

2.3.12 For the following activities referenced in schedule 1, table S1.1 A3 bottom ash and APC residues shall not be mixed.

2.3.13 Trials to burn alternative fuels to those described in table S2.2 can only be undertaken with the written agreement of the Agency.

2.3.14 Subject to the outcome of the burning trials in condition 2.3.13, the use of the alterative fuels as a substitution to those fuels described in table S2.2 can only be undertaken with the written agreement of the Agency, which will include the maximum throughput, the fuel composition and the maximum duration of the fuel use.

2.4 Waste Storage and Handling

2.4.1 The Operator shall design, maintain and operate all facilities for the storage and handling of waste on the Permitted Installation such that there are no releases to water or land during normal operation and that emissions to air and the risk of accidental release to water or land are minimised.

2.4.2 The Operator shall use BAT so as to prevent or where that is not practicable to reduce emissions of litter from the Permitted Installation provided always that the techniques used by the Operator shall be no less effective than those described in the Application, where relevant.

2.5 Waste Recovery and Disposal

2.5.1 Waste produced at the Permitted Installation shall be:

recovered to no lesser extent than described in the Application; and

where not recovered, disposed of while avoiding or reducing any impacts on the environment provided always that this is not done in any way that would have a greater effect on the environment than that described in the Application.

2.5.2 The Operator shall maintain and implement a system which ensures that a record is made of the quantity, composition, origin and delivery date of any waste that is received for disposal or recovery at the Permitted Installation.

2.5.3 Wastes produced at the Permitted Installation shall, as a minimum, be sampled and analysed in accordance with table S3.6. Additional samples shall be taken and tested and appropriate action taken, whenever:

- disposal or recovery routes change; or

- it is suspected that the nature or composition of the waste has changed such that the route currently selected may no longer be appropriate.

2.6 Improvement programme

2.6.1 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.

2.6.2 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.

2.7 Pre-operational conditions

2.7.1 The activitiy A5 shall not be brought into operation until the measures specified in schedule 1 table S1.4A 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 “WID 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 Where an annual mass limit for a substance is stated in table S3.4 the aggregate emission of such substances from the Permitted Installation for the emission points specified in table S3.4 shall not exceed that limit in any year.

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;

(b) implement the approved emissions management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

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.

3.3.3 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;

(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;

(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 Other Technical Methods

3.5.1 Where other technical measures of control are used to supplement or replace emission limit values in accordance with Regulation 12(8) of the PPC Regulations, the Operator shall comply with the requirements specified in table S3.7.

3.6 Monitoring

3.6.1 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;

3.6.2 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.

3.6.3 Monitoring equipment, techniques, personnel and organisations employed for the emissions monitoring programme and the environmental or other monitoring specified in condition 3.3.1 shall have either MCERTS certification or MCERTS accreditation (as appropriate) unless otherwise agreed in writing by the Environment Agency. For the following activities referenced in schedule 1, table S1.1 A3 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.

3.6.4 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.

3.6.5 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:

- Carbon monoxide 10%
- Sulphur dioxide 20%
- Oxides of nitrogen (NO & NO2 expressed as NO2) 20%
- Particulate matter 30%
- Total organic carbon (TOC) 30%
- 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 3.6.5;

(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.

3.6.6 The Operator shall maintain and implement an emissions monitoring programme which ensures that emissions are monitored from the specified points, for the parameters listed in and to the frequencies and methods described in tables S3.1 and S3.1(a), unless otherwise agreed in writing, and that the results of such monitoring are assessed. The programme shall ensure that monitoring is carried out under an appropriate range of operating conditions.

3.6.7 Where Continuous Emission Monitors are installed to comply with the monitoring requirements in tables S3.1 and S3.1(a), the Operator shall perform a QAL2 test as specified in BS EN 14181 at least every three years and when there are significant changes to either the process, the fuel used or to the CEMs themselves.

3.6.8 Where Continuous Emission Monitors are installed to comply with the monitoring requirements in tables S3.1 and S3.1(a), the Operator shall perform an Annual Surveillance Test (AST) at least annually, as specified within BS EN 14181.

3.6.9 The Operator shall carry out environmental monitoring or other specified substance monitoring to the frequencies and methods described in table S3.5.

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.

4.1.3 A record (a "Specified Record") shall be made of:-

a. any malfunction, breakdown or failure of plant, equipment or techniques (including down time and any short term and long term remedial measures) that may have, has had or might have had an effect on the environmental performance of the Permitted Installation. These records shall be kept in a log maintained for that purpose;

b. all monitoring and sampling taken or carried out in accordance with the conditions of this permit and any assessment or evaluation made on the basis of such data.;

4.1.4 There shall be made available for inspection by the Agency at any reasonable time:

a. Specified Records;

b. any other records made by the Operator in relation to the operation of the Permitted Installation (“Other Records”).

4.1.5 A copy of any Specified or Other Records shall be supplied to the Agency on demand and without charge.

4.1.6 For all waste received at or produced from the Permitted Installation, the Operator shall record (and shall retain such records for a minimum of 4 years)

a. its composition, or as appropriate, description;

b. the best estimate of the quantity produced;

c. its disposal routes; and

d. the best estimate of the quantity sent for recovery.

4.1.7 A record shall be made at the Permitted Installation of any complaints concerning the Installation's effect or alleged effect on the environment. The record shall give the date of complaint, time of complaint, a summary of any investigation and the results of such investigation. Such records shall be made in a log kept for this purpose.

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 Within one 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.

4.2.3 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 For the following activities referenced in schedule 1, table S1.1 A3 and A5 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 Article 12(2) of the Waste Incineration Directive) give an account of the running of the process and the emissions into air and water compared with the emission standards in the WID.

4.2.5 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.

4.2.6 Where the Operator has a formal environmental management system applying to the Permitted Installation which encompasses annual improvement targets the Operator shall, not later than 31 January in each year, provide a summary report of the previous year's progress against such targets.

4.2.7 Fugitive emissions shall be reviewed on an annual basis and a summary report on this review shall be sent to the Agency detailing such releases and the measures taken to reduce them.

4.3 Notifications

4.3.1 The Environment Agency shall be notified without delay following the detection of:

(a) 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;

(b) the breach of a limit specified in the permit; or

(c) any significant adverse environmental effects.

(d) any incident which has led to a period of abnormal operation of incineration or co-incineration plant, as defined in Section 6 Interpretation

4.3.2 Any information provided under condition 4.3.1 shall be confirmed by sending the information listed in schedule 5 to this permit within the time period specified in that schedule. For notifications of incidents of abnormal operations under condition (**d)**, only the information listed in Part C of that Schedule is required and such information shall be in accordance with 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

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.

4.3.8 From 1 January 2008 the operator shall inform the Environment Agency in writing of the closure of any LCP within 28 days of the date of closure.

4.3.9 The Operator shall notify the Agency, as soon as practicable, of any information concerning the state of the Site which affects or updates that provided to the Agency as part of the Site Report submitted with the application for this Permit.

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 “without delay”, 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 and WFD Annex IIA and IIB operations**	**Limits of specified activity and waste types**
A1	S6.1 A1 - Producing in an industrial plant paper and board where the plant has a production capacity of more than 20 tonnes per day.	Newsprint manufacture from recycled fibre, including raw material processing and despatch of finished goods to the customer.	Waste paper delivery to site. Despatch of paper to customer.
A2	Section 1.1 Part (A)1 - Burning any fuel in an appliance with a rated thermal input of 50 MW or more.	Three gas/oil fired boilers and one fluidised bed combustor .	Fuel delivery and storage, discharge stacks and steam distribution system
A3	Section 5.1 Part (A) 1 (c) - The incineration of non-hazardous waste in an incineration plant with a capacity of 1 tonne or more per hour	WID Incinerator	Incineration and steam generation – limited to the waste materials and quantities identified in table S2.2
	Directly Associated Activity		
A4	Effluent treatment plant.	Activated sludge treatment of all liquid effluent from the papermaking activity.	Effluent flow from paper machines, effluent treatment, lagoons and discharge system

	Description of activities for waste operations	**Limits of activities**
A5	Materials recycling facility (not subject to standard rules as >75kte).	From receipt of non-hazardous wastes and raw materials to transfer of separated wastes to further treatment and recovery activities; dispatch of residual wastes. Waste types to be as specified in Schedule 3 Table S2.3.

Table S1.2 Operating techniques		
Description	**Parts**	**Date Received**
Management and control		
Application	The response to question 2.1 given in section 2.1 of the Application, excluding Table 2.1, and in Appendix 2	11/10/02
Response to Schedule 4 Part 1 Notice	Response to question 5	11/10/02
Application for variation BV4916	Application for variation dated 25/07/03	31/07/03
Response to request for information	Response dated 01/10/03	02/10/03
Application for variation PP3936SQ	Application for variation dated 24/11/05	28/11/05
Application for variation EA/EPR/BT4885IT/V006	Application for variation dated December 2009	29/12/09
Application for variation EA/EPR/BT4885IT/V008	Application for variation dated 10/05/09– Annex 1 (Fuels Testing Protocol), Annex 1 (Waste Acceptance Procedures) and Annex 2 (Accident Management Plan)	10/05/09
Raw materials (including water)		
Application	The response to question 2.2 given in section 2.2 of the Application excluding Tables 2.2.2.1 and 2.2.3.1	11/10/02
Response to Sch-4 Notice	Item 6, Item 7	11/10/02
Application for variation BV4916	Application for variation dated 25/07/03	31/07/03
Response to request for information	Response dated 15/10/03	15/10/03
Application for Variation WP3031LR	Application for Variation dated 12/07/06	12/07/06
Application for variation PP3936SQ	Application for variation dated 24/11/05	28/11/05
Application for variation EA/EPR/BT4885IT/V008	Application for variation dated 10/05/09	10/05/09
Groundwater protection		
Application	The response to question 2.4 given in the Application section 2.4 excluding Table 2.4.1	11/10/02
Response to Schedule 4 Part 1 Notice	Response to questions 1 and 2	11/10/02
Supplementary Information	Response to item 4	11/10/02
Waste handling and storage		
Application	The response to question 2.5 given in the Application section 2.5 excluding Table 2.5.4	11/10/02
Application for variation BV4916	Application for variation dated 25/07/03	31/07/03
Application for variation PP3936SQ	Application for variation dated 24/11/05	28/11/05
Waste recovery and disposal		
Application	The response to question 2.6 given in the Application section 2.6 excluding Table 2.6.1	11/10/02
Application for variation BV4916	Application for variation dated 25/07/03	31/07/03

Application for variation PP3936SQ	Application for variation dated 24/11/05	28/11/05
Application for variation EA/EPR/BT4885IT/V008	Application for variation, documents referenced in response to 6f. – the location of waste storage areas.	10/05/10
Energy Efficiency		
Response to Schedule 4 Part 1 Notice	Response to questions 16 and 22	11/10/02
Additional information provided by letter	Sankey diagram.	11/10/02
Application for variation BV4916	Application for variation dated 25/07/03	31/07/03
Application for variation PP3936SQ	Application for variation dated 24/11/05 (table New energy mix, C2.7.1 shall be excluded)	28/11/05
Response to request for information	Response dated 26/05/06	26/05/06
Accident and prevention		
Response to Schedule 4 Part 1 Notice	Response to questions 8, and 18	11/10/02
Application for Variation WP3031LR	Application for Variation dated 12/07/06	12/07/06
Application for variation PP3936SQ	Application for variation dated 24/11/05	28/11/05
Noise and Vibration		
Application	The response to question 2.9 given in the Application section 2.9 excluding Table 2.9.1	11/10/02
Application for variation PP3936SQ	Application for variation dated 24/11/05	28/11/05
Monitoring		
Application	The response to question 2.10 given in the Application section 2.10 excluding Table 2.10.8.	11/10/02
Response to Schedule 4 Part 1 Notice	Response to question 14.	11/10/02
Application for variation BV4916	Application for variation dated 25/07/03	31/07/03
Response to request for information	Response dated 01/10/03	02/10/03
Application for Variation WP3031LR	Application for Variation dated 12/07/06	12/07/06
Application for variation PP3936SQ	Application for variation dated 24/11/05	28/11/05
Decommissioning		
Application	The response to question 2.11 given in the Application section 2.11.	11/10/02
Application for variation BV4916	Application for variation dated 25/07/03	31/07/03
Response to request for information	Response dated 01/10/03	02/10/03
Operating techniques		
Application	The response to question 2.3 given in the Application section 2.3; excluding Tables 2.3.1, 2.3.3, 2.3.8, 2.3.9, 2.3.10, 2.3.12, 2.3.13.	11/10/02
Response to Sch 4 Notice	Item 4, 9, 10,11, 12, 13, 14, 15, 16, 17, 18, 19, 20	11/10/02
Application for variation	Application for variation dated 25/07/03	31/07/03

BV4916		
Response to request for information	Response dated 23/09/03	23/09/03
Application for variation JP3030LM	Application for variation dated 22/04/05.	29/04/05
Application for Variation WP3031LR	Application for Variation dated 12/07/06	12/07/06
Application for variation PP3936SQ	Application for variation dated 24/11/05	28/11/05
Response to request for information	Response dated 26/05/06	26/05/06
Application for variation EA/EPR/BT4885IT/V006	Application for variation dated December 2009	29/12/09
Application for variation EA/EPR/BT4885IT/V008	Application for variation dated 10/05/09 - Technical Description – Dry Materials Recycling Facility and Annex 3 (MRF Risk Assessment)	10/05/10

Table S1.3 Improvement programme requirements		
Reference	**Requirement**	**Date**
1	The Operator shall produce a publicly available environmental report covering the activities of Shotton Paper Company on the Deeside Paper Mill installation.	30/4/2003
2	The Operator shall integrate the requirements of the PPC Regulations into the design and review process for all new facilities, engineering and other capital projects.	30/4/2003
3	The Operator shall integrate the requirements of the PPC Regulations into the capital approval process.	30/4/2003
4	The Operator shall assess the opportunities for the minimisation and reuse of rejected log ends and oversize purchased chips. Consideration shall be given to the potential for use as site derived fuel on boiler 2. A report shall be submitted to the Environment Agency.	30/4/2003
5	The Operator shall submit details of the continuous flow monitoring and recording system on emission point W1, including proposals for upgrading the system in accordance with the Environment Agency's Self Monitoring of Effluent Flow Policy.	31/10/2003
6	The Operator shall assess the requirement to provide continuous pH monitoring at emission point W1 and shall submit a report to the Environment Agency.	30/4/2003
7	The Operator shall establish risk assessment procedures for the determination of the significance of the environmental aspects of all site activities.	30/4/2003
8	The Operator shall link the "Register of Significance of Environmental Aspects" to corresponding environmental legislation.	30/4/2003
9	The Operator shall establish the environmental fate of all raw materials and chemicals, including contaminants contained within them. A report shall be submitted to the Environment Agency**.**	30/4/2003
10	The Operator shall incorporate a procedure to recycle damaged metal core inserts.	30/4/2003
11	The Operator shall investigate methods to reduce the temperature of the Boiler 2 fly ash, using the existing equipment, and shall carry out a BAT assessment for the cooling of the ash. A risk assessment shall be carried out into the handling of the ash. A report shall be submitted to the Environment Agency.	30/4/2003
12	The Operator shall repeat the fauna study undertaken in Whitesands Gutter in 2000. A report shall be submitted to the Environment Agency.	30/4/2003
13	The Operator shall propose an extended monitoring programme for the waste sludge which is landspread to establish the presence of contaminants i.e. heavy metals and persistent organic compounds taking into account outcomes from improvement condition 9. A report shall be submitted to the Environment Agency.	31/7/2003
14	The Operator shall propose a timetable for adopting the relevant standards, including MCERTS, for the monitoring of air and water emissions. A report shall be submitted to the Environment Agency.	31/7/2003
15	The Operator shall establish training for and regular testing of spillage control procedures.	30/4/2003
16	The Operator shall propose a programme for groundwater monitoring. The Operator shall implement the programme as approved with the Environment Agency. A report, in accordance with the Environment Agency's agreement on the programme shall be submitted on an annual basis.	30/4/2003 31/5/2003
17	The Operator shall assess the potential for the integration of all management audits and shall submit a report to the Environment Agency.	30/4/2004
18	The Operator shall assess the available techniques for the reduction of	31/12/2003

	noise from mobile plant and external conveyors.	
19	The Operator shall establish a programme for periodic surveying of the integrity of underground pipework and services.	31/1/2004
20	The Operator shall undertake an assessment to determine whether any of the aqueous emissions are liable to contain any of the specified List I and List II Substances (as defined in the Dangerous Substances Directive 76/464/EEC). A report shall be provided to the Environment Agency.	31/7/2003
21	The Operator shall identify all indirect aqueous emissions to controlled waters, both surface and groundwaters and assess how these discharges address the requirements of the Groundwater Regulations with regards to List I and List II substances. A report shall be provided to the Environment Agency.	30/4/2003
22	The Operator shall undertake an assessment on the risk of fugitive and process emissions entering controlled waters. A report together with an action plan shall be provided to the Environment Agency.	30/4/2003
23	The Operator shall incorporate the purchasing of raw materials within the Environmental policy. A report shall be provided to the Environment Agency.	31/7/2003
24	The Operator shall assess the opportunities for sourcing raw materials and chemicals with reduced environmental impact. A report shall be presented to the Agency every two years.	30/4/2004
25	The Operator shall optimise the operation of the current Aqua Heat Recovery system, with regard to both energy recovery and the suppression of plumes from the Paper Machine exhausts. A report shall be provided to the Environment Agency.	31/10/2003
26	The Operator shall improve access to the TMP and Paper Machine Exhausts in order to allow more reliable and accurate monitoring of point source emissions to atmosphere.	31/10/2003
27	The Operator shall produce an odour management plan covering all activities carried out by Shotton Paper Company on the site of the Deeside Paper Mill Installation.	31/10/2003
28	The Operator shall periodically assess the viable reuse alternatives for the disposal of all waste material, including sludge, fly ash and machine clothing. A report shall be submitted to the Agency every two years.	31/8/2003
29	The Operator shall prepare a Noise Management Plan, in conjunction with other operators within the installation. A copy of the draft shall be submitted to the Agency for agreement before implementation of the plan. The plan shall be implemented.	30/6/2004 31/10/04
30	The Operator shall assess the requirements for external doors to be left open, and identify the opportunities for reducing off site noise by keeping doors closed.	31/3/2004
31	The Operator shall assess the requirements for silencers to be fitted to external steam system relief valves.	31/3/2004
32	The Operator shall carry out a BAT assessment for the recovery of energy and the suppression of plumes from the Paper Machine exhausts. A report shall be submitted to the Environment Agency.	31/12/2004
33	The Operator shall establish a site closure plan within the EMS.	31/12/2004
34	The Operator shall carry out a review of the operations of boilers 1,2 and 3 in light of the operation of the Shotton CHP plant and the proposed construction of the RCF plant. A BAT assessment shall be carried out, including a programme for its implementation. The BAT review shall include, but not be restricted to; the use of imported bark on boiler 2, the operating hours for boiler 1 and any modifications necessary to meet the requirements of the Waste Incineration (England and Wales) Regulations 2002. SI 2002 No. 2980.	31/12/2003
35	The Operator shall review techniques for the minimisation of the sulphur	30/6/2004

	content of the site derived fuel used on boiler 2.	
36	The operator shall carry out a programme of quarterly monitoring for dioxins and furans in the exhaust stack on boiler 2.	31/12/2003
37	The operator shall review the use of alternative co-fuels to softwood bark in accordance with BAT. A report of the findings shall be submitted to the Agency.	30/03/2004
38	The operator shall provide a report to the Agency detailing the research into the potential use of optical pigment agents (to trim paper brightness) as a replacement for sodium hydrosulphite.	31/03/2004
39	The operator shall review the particulate emissions monitoring requirements on boiler 2. The review shall include proposals for the installation of continuous monitoring of particulate emissions in accordance with BAT. A report of the findings shall be submitted to the Agency.	30/03/2004
40	The operator shall submit a report demonstrating to the Agency that the operation of boiler 6 has achieved BAT	30/06/2004
41	The operator shall provide the Agency with a detailed report of progress against the improvement programme every three months.	31/03/2004
42	The Operator shall submit a 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 A20 identifying the fractions within the PM_{10}, $PM_{2.5}$ and $PM_{1.0}$ ranges. The proposal shall include a timetable to carry out such tests and produce a report on the results. On receipt of written agreement by the Agency to the proposal and the timetable, the Operator shall carry out the tests and submit to the Agency a report on the results.	Proposal to be submitted to the Agency by 31/06/07 Report on size distribution tests to be submitted to the Agency within 2 months of the end of the agreed timetable.
43	The Operator shall calibrate and verify the performance of Continuous Emission Monitors for release points and parameters as specified in Table 6.1.3 to BS EN 14181 and submit a summary report to the Environment Agency as evidence of compliance with the requirements of BS EN 14181.	Report to be submitted to the Agency by(12 mths).

Table S1.4A Pre-operational measures	
Reference	**Pre-operational measures**
1	At least 2 weeks before operation the operator shall submit a report demonstrating that the necessary procedures are in place for the operation of MRF and that staff have received the necessary training.

Schedule 2 - Waste types, raw materials and fuels

Table S2.1 Raw materials and fuels	
Raw materials and fuel description	**Specification**
Not Applicable	Not Applicable

Table S2.2 Permitted waste types and quantities for incineration		
Maximum quantity	1. Paper mill sludge - maximum throughput of 350,000t/yr 2. Biomass (forest residues, round wood logs and sawmill residuals) - maximum throughput of 270,000t/yr 3. Waste wood - maximum throughput of up to 60% of biomass substitution 4. For fuel mixes that contain materials other than those described in points 1, 2 and 3, the fuel composition, maximum throughtput and duration of the fuel substitution must be confirmed in writing by the Environment Agency prior to burning trials or substitution as a fuel.	
Approved	**Waste code**	**Description**
Biomass	02 01 07	Forest residues, round wood logs and sawmill residuals.
Paper Mill Sludge	03 03 05	Mixed waste sludge from de-inking process and effluent treatment. rejects from recovered paper slushing process
Waste wood	17 02 01	Waste wood form construction and demolition
	15 01 03	Wooden packaging
	19 12 07	Waste wood from the mechanical treatment of waste.
	20 01 38	Municipal Waste wood not containing dangerous substances.
	03 01 01	Waste bark from wood processing and the production of panels and furniture
	03 01 05	Sawdust, shavings, cuttings wood from wood processing and the production of panels and furniture
	03 03 01	Waste bark and wood from pulp, paper and cardboard production.
	19 05 01	Organic rejects from compost screening process.

Table S2.3 Permitted waste types and quantities for sorting in the Dry Materials Recycling Facility	
Maximum quantity	Annual throughput of 300,000 tonnes per annum. Up to 42 tonnes per hour with 25% glass and 32 tonnes without glass.
Waste code	**Description**
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
15 01 06	Mixed packaging
19 12 01	Paper and cardboard
19 12 12	Other wastes (including mixtures of other materials) from the mechanical treatment of wastes other than those mentioned in 19 12 11
20 03 01	Mixed municipal waste (in the form of co-mingled waste)
20 03 02	Waste from markets (in the form of co-mingled waste)

Schedule 3 – Emissions and monitoring

Table S3.1 Point source emissions to air – emission limits and monitoring requirements						
Emission point ref. & location	**Parameter**	**Source**	**Limit (including unit) Note 1**	**Reference Period Note 1**	**Monitoring frequency**	**Monitoring standard or method**
A20	Particulate matter	Boiler 7 Stack	30 mg/m^3	½-hr average	Continuous measurement	BS EN 13284-2 [9 7]
A20	Particulate matter	Boiler 7 Stack	10 mg/m^3	Daily average	Continuous measurement	BS EN 13284-2 [9 7]
A20	Particulate matter	Boiler 7 Stack	20 mg/m^3	Periodic over minimum 1-hour period	Bi annual[2]	BS EN 13284-1
A20	Total Organic Carbon (TOC)	Boiler 7 Stack	20 mg/m^3	½-hr average	Continuous measurement	BS EN 12619 [9 7]
A20	Total Organic Carbon (TOC)	Boiler 7 Stack	10 mg/m^3	Daily average	Continuous measurement	BS EN 12619 [9 7]
A20	Total Organic Carbon (TOC)	Boiler 7 Stack	20 mg/m^3	Periodic over minimum 1-hour period	Bi annual[2]	BS EN 12619
A20	Hydrogen chloride	Boiler 7 Stack	60 mg/m^3	½-hr average	Continuous measurement	MCERTS certified instruments[10 8]
A20	Hydrogen chloride	Boiler 7 Stack	10 mg/m^3	Daily average	Continuous measurement	MCERTS certified instruments[10 8]
A20	Hydrogen chloride	Boiler 7 Stack	30 mg/m^3	Periodic over minimum 1-hour period	Bi-annual [2]	BS EN 1911
A20	Hydrogen fluoride	Boiler 7 Stack	2 mg/m^3	Periodic over minimum 1-hour period	Bi-annual [2]	USEPA Method 26/26A
A20	Carbon monoxide	Boiler 7 Stack	100 mg/m^3	½-hr average	Continuous measurement	ISO 12039 [9.5]
A20	Carbon monoxide	Boiler 7 Stack	50 mg/m^3	Daily average	Continuous measurement	ISO 12039 [9 5]
A20	Carbon monoxide	Boiler 7 Stack	100 mg/m^3	Periodic over minimum 4 hour period, data to be reported as ½-hour averages	Bi-annual [2]	ISO 12039
A20	Sulphur dioxide	Boiler 7 Stack	200 mg/m^3	½-hr average	Continuous measurement	BS 6069-4.4 [9 6]

A20	Sulphur dioxide	Boiler 7 Stack	50 mg/m^3	Daily average	Continuous measurement	BS 6069-4.4[9 6]
A20	Sulphur dioxide	Boiler 7 Stack	200 mg/m^3	Periodic over minimum 4 hour period, data to be reported as ½ hour averages	Bi-annual [2]	BS 6069-4.1
A20	Oxides of nitrogen (NO and NO_2 expressed as NO_2)	Boiler 7 Stack	400 mg/m^3	½-hr average	Continuous measurement	ISO 10849[9 6]
A20	Oxides of nitrogen (NO and NO_2 expressed as NO_2)	Boiler 7 Stack	200 mg/m^3	Daily average	Continuous measurement	ISO 10849[9 6]
A20	Oxides of nitrogen (NO and NO_2 expressed as NO_2)	Boiler 7 Stack	400 mg/m^3	Periodic over minimum 4 hour period, data to be reported as ½- hour averages	Bi-annual [2]	ISO 10849 or BS ISO 11564
A20	Cadmium & thallium and their compounds (total) [3]	Boiler 7 Stack	0.05 mg/m^3	Periodic over minimum 30 minute, maximum 8 hour period	Bi-annual [2]	BS EN 14385
A20	Mercury and its compounds [3]	Boiler 7 Stack	0.05 mg/m^3	Periodic over minimum 30 minute, maximum 8 hour period	Bi-annual [2]	BS EN 13211
A20	Sb, As, Pb, Cr, Co, Cu, Mn, Ni and V and their compounds (total) [3]	Boiler 7 Stack	0.5 mg/m^3	Periodic over minimum 30 minute, maximum 8 hour period	Bi-annual [2]	BS EN 14385
A20	Dioxins / furans (I-TEQ)	Boiler 7 Stack	0.1 ng/m^3	Periodic over minimum 6 hours, maximum 8 hour period [4]	Bi-annual [2]	BS EN 1948
A1		PM1 Hood Exhaust				
A2		PM1 Vacuum Pump Exhaust				

A9		RCF1 Pulper Vent				
A10		PM2 Hood Exhaust				
A11		PM2 Vacuum Pump Exhaust				
A12		RCF2 Pulper Vent				
A13	Oxides of Nitrogen (as NO2)	Boiler 1 Stack	450 mg/m^3	½ hourly average	Quarterly – When in use	BS EN 15267-3
A15	Oxides of Nitrogen (as NO2)	Boiler 3 Stack	150 mg/m^3	½ hourly average	Quarterly – When in use	BS EN 15267
A18	Oxides of Nitrogen (as NO2)	Boiler 6 Stack	150 mg/m^3	½ hourly average	Quarterly	BS EN 15267
A19		RCF3 Pulper Vent				

Note 1: See Section 6 for reference conditions

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 I-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: The Continuous Emission Monitors used shall be such that the values of the 95% confidence intervals of a single measured result at the daily emission limit value shall not exceed 10%. Valid half-hourly average values shall be determined within the effective operating time (excluding the start-up and shut-down periods if no waste is being incinerated) from the measured values after having subtracted this value of the confidence interval (10%). Where it is necessary to calibrate or maintain the monitor and this means that data is not available for a complete half-hour period, the half-hourly average shall nonetheless 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). 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 will be considered valid if no more than five half-hourly average values in any day have been determined not to be valid. No more than ten daily average values per year shall be determined not to be valid.

Note 6: As Note 5, except that the value of the confidence interval is 20% in place on 10%.

Note 7: As Note 5, except that the value of the confidence interval is 30% in place on 10%.

Note 8: As Note 5, except that the value of the confidence interval is 40% in place on 10%.

Note 9: MCERTS certification to the appropriate ranges and determinands is a demonstration of compliance to the applicable standards.

Note 10: The certification range for MCERTS equipment should be 1.5 times the daily emission limit value. The CEM shall also be able to measure instantaneous values over the ranges that 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.

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) Note 1	Reference Period Note 1	Monitoring frequency	Monitoring standard or method
A20	Particulate matter	Boiler 7 Stack	150 mg/m^3	½-hr average	Continuous measurement	BS EN 13824-2[4] [2] during abatement plant failure or during failure of the continuous emission monitor
A20	Total Organic Carbon (TOC)	Boiler 7 Stack	20 mg/m^3	½-hr average	Continuous measurement	BS EN 12619[4] [2] during abatement plant failure or during failure of the continuous emission monitor
A20	Carbon monoxide	Boiler 7 Stack	100 mg/m^3	½-hr average	Continuous measurement	ISO 12039[4] [3] during abatement plant failure or during failure of the continuous emission monitor

Note 1: See Section 6 for reference conditions

Note 2: The Continuous Emission Monitors used shall be such that the values of the 95% confidence intervals of a single measured result at the daily emission limit value shall not exceed 30%. Valid half-hourly average values shall be determined within the effective operating time (excluding the start-up and shut-down periods if no waste is being incinerated) from the measured values after having subtracted this value of the confidence interval (30%). Where it is necessary to calibrate or maintain the monitor and this means that data is not available for a complete half-hour period, the half-hourly average shall nonetheless 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).

Note 3: As Note 2, except that the value of the confidence interval is 10% in place on 30%.

Note 4: MCERTS certification to the appropriate ranges and determinands is a demonstration of compliance to the applicable standards.

Table S3.2 Point Source emissions to water (other than sewer) and land – emission limits and monitoring requirements						
Emission point ref. & location	**Parameter**	**Source**	**Limit (incl. unit) Note 1**	**Reference Period Note 1**	**Monitoring frequency**	**Monitoring standard or method**
W1	Biological Oxygen Demand (measured after 5 days at $20^{O}C$) with nitrification suppressed by the addition of allylthiourea)	Treated effluent from the Effluent Treatment Plant	50mg/l		Weekly	ISO 5815: 1989
W1	Suspended Solids	Treated effluent from the Effluent Treatment Plant	60 mg/l	For 95% of all measured values of periodic samples taken over one month	Weekly	BS EN 872
W1	pH max	Treated effluent from the Effluent Treatment Plant	9 pH	Instantaneous	Continuous	BS6068-2.50
W1	pH min	Treated effluent from the Effluent Treatment Plant	6 pH	Instantaneous	Continuous	BS6068-2.50
W1	Ammoniacal Nitrogen	Treated effluent from the Effluent Treatment Plant	4 mg/l	Instantaneous	Daily	
W1	Temperature degrees Celsius	Treated effluent from the Effluent Treatment Plant	25^{o} Celsius	Continuous	Continuous	
W1	Dissolved Oxygen	Treated effluent from the Effluent Treatment Plant	Note 6 mg/l		Continuous	
W1	Maximum instantaneous Flow rate	Treated effluent from the Effluent Treatment Plant	800 l/s	24 hour period beginning 00.01	Continuous Note 3	
W1	Maximum Daily Flow	Treated effluent from the Effluent Treatment Plant	22,000 m^3/day	Instantaneous	Daily Note 4	
W1	Maximum Tidal Flow	Treated effluent from the Effluent Treatment Plant	11,000 m^3/tide	Instantaneous	Daily Note 5	

W2		Site drainage from main car park				
W3		Site drainage from northern half of main production area				
W4		Site drainage from HGV carpark and interior of the northern section of the finished paper warehouse				
W5		Site drainage from the roundwood storage area				
W5		Site drainage from south end of waste paper storage warehouse				

Note 1 – Monitoring based on flow weighed composite sample

Note 3 – Flows of the discharge shall be measured at the outlet NGR SJ 30057 71141.

Note 4 – Maximum daily flow calculated from continuous monitoring of instantaneous flow

Note 5 – Maximum tidal flow calculated from continuous monitoring of instantaneous flow during a tidal discharge

Note 6- A limit will be established following a period of monitoring.

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	Parameter	Source	Limit (incl. Unit)	Reference period	Monitoring frequency	Monitoring standard or method
	Volumetric Flow	Boiler 7 effluent and treated scrubber water	300m^3/day	24 hour period beginning 00.01	Continuous	BS3680
E1	pH	Boiler 7 effluent and treated scrubber water	6(min)	Instantaneous	Continuous	BS 1647-2:1984
E1	pH	Boiler 7 effluent and treated scrubber water	9(max)	Instantaneous	Continuous	BS 1647-2:1984
E1	Total suspended solids as defined by Directive 91/271/EEC	Boiler 7 effluent and treated scrubber water	30mg/l for	95% of all measured values of periodic or flow proportional samples taken over one year. [1]	Daily	BS EN 872

E1	Total suspended solids as defined by Directive 91/271/EEC	Boiler 7 effluent and treated scrubber water	45mg/l for	100% of all measured values of periodic or flow proportional sample. [1]	Daily	BS EN 872
E1	Mercury and its compounds, expressed as mercury (Total Hg)	Boiler 7 effluent and treated scrubber water	0.03 mg/l	24-hour flow proportional sample [2]	Monthly	BS EN 13506
E1	Cadmium and its compounds, expressed as cadmium (Total Cd)	Boiler 7 effluent and treated scrubber water	0.05 mg/l	24-hour flow proportional sample [2]	Monthly	BS 6068-2.89
E1	Thallium and its compounds, expressed as thallium (Total Tl)	Boiler 7 effluent and treated scrubber water	0.05 mg/l	24-hour flow proportional sample [2]	Monthly	BS 6068-2.89
E1	Arsenic and its compounds, expressed as arsenic (Total As)	Boiler 7 effluent and treated scrubber water	0.15 mg/l	24-hour flow proportional sample [2]	Monthly	BS 6068-2.60
E1	Lead and its compounds, expressed as lead (Total Pb)	Boiler 7 effluent and treated scrubber water	0.2 mg/l	24-hour flow proportional sample [2]	Monthly	BS 6068-2.60
E1	Chromium and its compounds, expressed as chromium (Total Cr)	Boiler 7 effluent and treated scrubber water	0.5 mg/l	24-hour flow proportional sample [2]	Monthly	BS 6068-2.60
E1	Copper and its compounds, expressed as copper (Total Cu)	Boiler 7 effluent and treated scrubber water	0.5 mg/l	24-hour flow proportional sample [2]	Monthly	BS 6068-2.60
E1	Nickel and its compounds, expressed as nickel (Total Ni)	Boiler 7 effluent and treated scrubber water	0.5 mg/l	24-hour flow proportional sample [2]	Monthly	BS 6068-2.60
E1	Zinc and its compounds, expressed as Zinc (Total Zn)	Boiler 7 effluent and treated scrubber water	1.5 mg/l	24-hour flow proportional sample [2]	Monthly	BS 6068-2.60
E1	Dioxins/ furans (I-TEQ)	Boiler 7 effluent and treated scrubber water	0.3 ng/l	24-hour flow proportional sample [3]	Bi-annual. [4]	USEPA Method 1613

Note 1: Total suspended solids limits apply as periodic daily samples OR 24hr flow proportional sample.

Note 2: Only 1 sample per year OR 5% of annual samples (where more than 20 samples are taken) may exceed the limits stated above.

Note 3: 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 S3.4 Annual limits			
Substance	**Limit (including unit)**		**Emission Point**
Oxides of nitrogen, oxides of sulphur, and particulate matter	Assessment year	LCP NERP Limit	Windshield comprising emission points A13, A14 & A15
	01/01/08-31/12/08 and subsequent years until 31/12/15	Emission allowances figure shown in the NERP Register as at 30 April the following year	

Table S3.5 Process monitoring requirements				
Emission point reference or source or description of point of measurement	**Parameter**	**Monitoring frequency**	**Monitoring standard or method**	**Other specifications**
A20	temperature	continuous	As described in the Application	
A20	pressure	continuous	As described in the Application	
A20	oxygen content	continuous	As described in the Application	
A20	water vapour content	continuous	As described in the Application	
A20	Ammonia (NH_3) Half hour average and daily average if CEMs installed or periodic over minimum 1 hour period	Continuous where CEM installed, or bi-annual [1]	As described in the Application	
A20	Nitrous oxide (N_2O) Periodic over minimum 1 hour period	Bi-annual[1]	MCERTS certified instruments[4]	
A20	Dioxin-like PCBs (WHO-TEQ [2] Humans / Mammals)	Bi-annual periodic measurement[1], average value over sample period of between 6 and 8 hours.	To be determined utilising sampling and analytical techniques developed for dioxins/furans (BS EN 1948)	
A20	Dioxin-like PCBs (WHO-TEQ [2] Fish)	Bi-annual periodic measurement[1], average value over sample period of between 6 and 8 hours.	To be determined utilising sampling and analytical techniques developed for dioxins/furans (BS EN 1948)	

A20	Dioxin-like PCBs (WHO-TEQ [2] Birds)	Bi-annual periodic measurement[1], average value over sample period of between 6 and 8 hours.	To be determined utilising sampling and analytical techniques developed for dioxins/furans (BS EN 1948)	
A20	Poly-cyclic aromatic hydrocarbons (PAHs)	Bi-annual periodic measurement[1], average value over sample period of between 6 and 8 hours.	Procedure shall use BS ISO 11338-1 and BS-ISO 11338-2.	
A20	Dioxins / furans (WHO-TEQ Humans / Mammals) [2]	Bi-annual periodic measurement[1], average value over sample period of between 6 and 8 hours.	To be determined utilising sampling and analytical techniques developed for dioxins/furans (BS EN 1948)	
A20	Dioxins / furans (WHO-TEQ Fish) [2]	Bi-annual periodic measurement[1], average value over sample period of between 6 and 8 hours.	To be determined utilising sampling and analytical techniques developed for dioxins/furans (BS EN 1948)	
A20	Dioxins / furans (WHO-TEQ Birds) [2]	Bi-annual periodic measurement[1], average value over sample period of between 6 and 8 hours.	To be determined utilising sampling and analytical techniques developed for dioxins/furans (BS EN 1948)	
Bottom Ash	Metals (Cadmium, Thallium, Mercury, Lead, Chromium, Copper, Manganese, Nickel, Arsenic, Cobalt, Vanadium, Zinc) and their compounds, dioxins/furans and dioxin-like PCBs.	Quarterly[3]	Sampling and analysis as per Agency ash sampling protocol.	

Bottom Ash	Total soluble fraction and metals (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 Agency ash sampling protocol.	
APC Residues	Metals (Cadmium, Thallium, Mercury, Lead, Chromium, Copper, Manganese, Nickel, Arsenic, Cobalt, Vanadium, Zinc) and their compounds, dioxins/furans and dioxin-like PCBs.	Quarterly[3]	Sampling and analysis as per Agency ash sampling protocol.	
APC Residues	Total soluble fraction and metals (Cadmium, Thallium, Mercury, Lead, Chromium, Copper, Manganese, Nickel, Arsenic, Cobalt, Vanadium, Zinc soluble fractions	Before use of a new disposal or recycling route or when a new waste fuel is introduced	Sampling and analysis as per Agency ash sampling protocol.	
Other solid residues	Total soluble fraction and metals (Cadmium, Thallium, Mercury, Lead, Chromium, Copper, Manganese, Nickel, Arsenic, Cobalt, Vanadium, Zinc) soluble fractions	Before use of a new disposal or recycling route or when a new waste fuel is introuced	Sampling and analysis as per Agency ash sampling protocol.	
Other solid residues	Metals (Cadmium, Thallium, Mercury, Lead, Chromium, Copper, Manganese, Nickel, Arsenic, Cobalt, Vanadium, Zinc) and their compounds, dioxins/furans and dioxin-like PCBs.	Quarterly[3]	Sampling and analysis as per Agency ash sampling protocol.	
Close to the Combustion Chamber inner wall	Temperature (° C)	Continuous	Traceable to National Standards	

A1& A10	Volatile Organic Compounds (as Carbon) mg/m^3 (½ hourly average)	Annually		

Note 2: 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 4: The MCERTS specifications shall apply.

Table S3.6 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	LOI.	5%	Monthly	Agency ash sampling protocol.	-

Table S3.7: Equivalent parameters and technical measures

Parameter or measure	Requirement or description of measure, and frequency if relevant
Bottom ash burn-out quality	The Permitted Installation must be operated to ensure that the bottom ash shall have a total organic carbon (TOC) content less than 3%, or a loss on ignition of less than 5% of the dry weight of the ash

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**
Sulphur dioxide mg m^{-3}	A20	Six months (Bi annual monitoring) Monthly (continuous monitoring)	
Total Organic Carbon (TOC) mg m^{-3}	A20	Six months (Bi annual monitoring) Monthly (continuous monitoring)	
Oxides of nitrogen mg m^{-3}	A20	Six months (Bi annual monitoring) Monthly (continuous monitoring)	
Gaseous chlorides as HCl mg m^{-3}	A20	Six months (Bi annual monitoring) Monthly (continuous monitoring)	
Gaseous fluorides as HF mg m^{-3}	A20	Six months (Bi annual monitoring) Monthly (continuous monitoring)	
Particulate Matter mg m^{-3}	A20	Six months (Bi annual monitoring) Monthly (continuous monitoring)	
Carbon Monoxide mg m^{-3}	A20	Six months (Bi annual monitoring) Monthly (continuous monitoring)	
Cadmium & Thallium and their compounds (total)	A20	Every 6 months	
Mercury and its compounds	A20	Every 6 months	
Antimony, Arsenic, Lead, Chromium, Cobalt, Copper, Manganese, Nickel and Vanadium and their compounds (total)	A20	Every 6 months	
Dioxins / furans(WHO-TEQ Humans / Mammals)	A20	Every 6 months.	
Dioxins / furans(WHO-TEQ Fish)	A20	Every 6 months.	
Dioxins / furans (WHO-TEQ Birds)	A20	Every 6 months.	
Dioxin-like PCBs (WHO-TEQ Humans / Mammals)	A20	Every 6 months.	
Dioxin-like PCBs (WHO-TEQ Fish)	A20	Every 6 months.	
Dioxin-like PCBs (WHO-TEQ Birds)	A20	Every 6 months.	
Poly-cyclic aromatic hydrocarbons (PAHs)	A20	Every 6 months.	

Metals (Cadmium, Thallium, Mercury, Lead, Chromium, Copper, Manganese, Nickel, Arsenic, Cobalt, Vanadium, Zinc) and their compounds, dioxins/furans and dioxin-like PCBs.	APC Residues	Quarterly	
Total soluble fraction and metals (Cadmium, Thallium, Mercury, Lead, Chromium, Copper, Manganese, Nickel, Arsenic, Cobalt, Vanadium, Zinc) soluble fractions	APC Residues	Before use of a new disposal or recycling route, or when a new waste fuel is introduced	
Total soluble fraction and metals (Cadmium, Thallium, Mercury, Lead, Chromium, Copper, Manganese, Nickel, Arsenic, Cobalt, Vanadium, Zinc) soluble fractions	Bottom Ash	Before use of a new disposal or recycling route	
Metals (Cadmium, Thallium, Mercury, Lead, Chromium, Copper, Manganese, Nickel, Arsenic, Cobalt, Vanadium, Zinc) and their compounds, dioxins/furans and dioxin-like PCBs.	Bottom Ash	Quarterly	
Total soluble fraction and metals (Cadmium, Thallium, Mercury, Lead, Chromium, Copper, Manganese, Nickel, Arsenic, Cobalt, Vanadium, Zinc) soluble fractions	Other solid residues	Before use of a new disposal or recycling route	
Metals (Cadmium, Thallium, Mercury, Lead, Chromium, Copper, Manganese, Nickel, Arsenic, Cobalt, Vanadium, Zinc) and their compounds, dioxins/furans and dioxin-like PCBs.	Other solid residues	Quarterly	
LOI	Bottom Ash	Monthly	
Ammonia (NH3) mg m^{-3}	A20	Six months (Bi annual monitoring) or Monthly (continuous monitoring)	
Nitrous oxide (N_2O) mg m^{-3}	A20	Every 6 months	
Biochemical Oxygen Demand mg/l	W1	Quarterly	01/01/2003
Suspended Solids mg/l	W1	Quarterly	01/01/2003
pH	W1	Quarterly	01/01/2003
Temperature degrees Celsius	W1	Quarterly	01/01/2003
Ammoniacal Nitrogen mg/l	W1	Quarterly	01/01/2003
Flow Rate l/s	W1	Quarterly	01/01/2003

Flow m3/day	W1	Quarterly	01/01/2003
Flow m3/tide	W1	Quarterly	01/01/2003
Cadmium ug/l	W1	Quarterly	01/01/2003
Mercury ug/l	W1	Quarterly	01/01/2003
Organo-tin ug/l	W1	Quarterly	01/01/2003
Microtox	W1	Quarterly	01/01/2003
Dissolved Oxygen mg/l	W1	Quarterly	01/01/2003
Chemical Oxygen Demand mg/l	W1	Quarterly	01/01/2003
Annual Mass Release, kg for Biochemical Oxygen Demand.	W1	Every 12 mths	01/01/2003
Annual Mass Release, kg for Ammoniacal Nitrogen	W1	Every 12 mths	01/01/2003
Oxides of nitrogen (as NO2) mg m^{-3} (½ hourly average)	A13,A15 A18	Quarterly - if used Quarterly	01/01/2003
Volatile Organic Compounds (as carbon) mg m^{-3} (½ hourly average)	A1,A10	Every 12 mths	01/01/2003

Table S4.2: Annual production/treatment	
Parameter	**Units**
Total Biomass Incinerated	tonnes
Total Sludge Incinerated	tonnes
Total Waste wood Incinerated	tonnes
Total Waste paper and cardboard Incinerated	tonnes
Total Other wastes from waste management facilities Incinerated	tonnes
Total Other Municipal Waste Incinerated	tonnes
Total Wastes not otherwise specified on the list Incinerated	tonnes
Total Other Biomass Incinerated	tonnes
Total MRF materials accepted for sorting	tonnes
Total MRF facility throughput	tonnes
Total MRF material sent for recycling off-site	tonnes
Total MRF material utilised on site for production of newsprint	tonnes
Total MRF waste material sent off-site for disposal	tonnes

Table S4.3 Performance parameters		
Parameter	**Frequency of assessment**	**Units**
Not Applicable	Not Applicable	Not Applicable

Table S4.4 Reporting forms		
Media/parameter	**Reporting format**	**Date of form**
Air: Periodic monitored emissions biannually	Agency Form /PP3936SQ / A1 / Form dated May 06	May 06
Air: Periodic monitored emissions Quarterly	Agency Form /PP3936SQ / A8 / Form dated May 06	May 06
Air: Continuously monitored emissions of particulates	Agency Form /PP3936SQ / A2/ Form dated May 06	May 06
Air: Continuously monitored emissions of Gaseous chlorides as HCl	Agency Form /PP3936SQ A3/ Form dated May 06	May 06
Air: Continuously monitored emissions of TOC	Agency Form /PP3936SQ / A4 / Form dated May 06	May 06
Air: Continuously monitored emissions of Carbon monoxide	Agency Form /PP3936SQ / A5 / Form dated May 06	May 06
Air: Continuously monitored emissions of Sulphur dioxide	Agency Form /PP3936SQ / A 6/ Form dated May 06	May 06
Air: Continuously monitored emissions of Oxides of nitrogen	Agency Form /PP3936SQ / A 7/ Form dated May 06	May 06
Bottom Ash, APC Residues, Other solid residues: Composition	Agency Form /PP3936SQ / Ash 1/ Form dated May 06	May 06
Bottom Ash, APC Residues, Other solid residues: Solubility	Agency Form /PP3936SQ / Ash 2/ Form dated May 06	May 06
Air: annual VOC emissions A1 and A10	A9	Oct 10
Water	W1	04/02/03
Water	W2	04/02/03
Energy	E1	04/02/03
Waste Return	R1	04/02/03

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	
Name of operator	
Location of Facility	
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 *[OPERATOR NAME]*

Notification of abnormal emissions

Part C

Permit Number	
Name of Operator	
Location of Installation	

For multi-line plants, indicate which line(s) was (were) subject to abnormal operation.	
Time at which abnormal operation commenced	
Time at which abnormal operation ceased	
Duration of this incidence of abnormal operation	
Cumulative abnormal operation duration in current year (at end of present incidence)	
Reasons for abnormal operation	
How did the abnormal operation end? (e.g. plant repaired, reaching maximum permitted duration, initiation of shutdown, etc.)	
Where the abnormal operation was caused by the failure of the particulate, CO or TOC CEM, attach a copy of the alternate monitoring data which was used to demonstrate compliance with the abnormal operation emission limit values.	

Where abatement plant has failed, give the half-hourly average emissions for pollutants of relevance during the abnormal operation in the rows below

Pollutant	1st ½ hour	2nd ½ hour	3rd ½ hour	4th ½ hour	5th ½ hour	6th ½ hour	7th ½ hour	8th ½ hour

Name*	
Post	
Signature	
Date	

Authorised to sign on behalf of UPM Kymmene (UK) Ltd

Schedule 6 - Interpretation

"accident" means an accident that may result in pollution.

"annually" means once every year.

"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.

"abatement equipment" means that equipment dedicated to the removal of polluting substances from releases from the installation to air or water media.

"APC residues" means air pollution control residues

"Annex IIA" means Annex IIA to Directive 2006/12/EC of the European Parliament and of the Council of 5 April 2006 on Waste.

"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.

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

"background concentration" means such concentration of that substance as is present in:

- for emissions to surface water, the surface water quality up-gradient of the site; or
- for emissions to sewer, the surface water quality up-gradient of the sewage treatment works discharge.

"biomass" means:

a) vegetable matter from agriculture and forestry;

b) vegetable waste from the food processing industry, if the heat generated is recovered;

c) fibrous vegetable waste from virgin pulp production and from production of paper from pulp, if it is co-incinerated at the place of production and the heat generated is recovered;

d) cork waste;

e) wood waste with the exception of wood waste which may contain halogenated organic compounds or heavy metals as a result of treatment with wood preservatives or coating, and which includes in particular such wood waste originating from construction and demolition waste.

"best available treatment, recovery and recycling techniques" shall have the meaning given to it in the document published jointly by the Department for Environment, Food and Rural Affairs, the Welsh Assembly Government and the Scottish Executive on 27th November 2006, entitled "Guidance on Best Available Treatment, Recovery and Recycling Techniques (BATRRT) and Treatment of Waste Electrical and Electronic Equipment (WEEE);

"bottom ash" means [ash falling through the grate][transported by the grate] *or for incinerators which do not have a grate* [installation specific definition of bottom ash]*;*

"building" means a construction that has the objective of providing sheltering cover and minimising emissions of noise, particulate matter, odour and litter.

"CEM" Continuous emission monitor

"CEN" means Commité Européen de Normalisation

"calendar monthly mean" means the value across a calendar month of all validated hourly means.

"Combustion Technical Guidance Note" means IPPC Sector Guidance Note Combustion Activities, version 2.03 dated 27th July 2005 published by Environment Agency.

"controlled substances" means chlorofluorocarbons, other fully halogenated chlorofluorocarbons, halons, carbon tetrachloride, 1,1,1-trichloroethane, methyl bromide, hydrobromofluorocarbons and hydrochlorofluorocarbons listed in Annex I of Regulation (EC) No 2037/2000 of the European Parliament and of the Council of 29 June 2000 on substances that deplete the ozone layer, including their isomers, whether alone or in a mixture, and whether they are virgin, recovered, recycled or reclaimed. This definition shall not cover any controlled substance which is in a manufactured product other than a container used for the transportation or storage of that substance, or insignificant quantities of any controlled substance, originating from inadvertent or coincidental production during a manufacturing process, from unreacted feedstock, or from use as a processing agent which is present in chemical substances as trace impurities, or that is emitted during product manufacture or handling.

"disposal" means any of the operations provided for in Annex IIA to Directive 2006/12/EC of the European Parliament and of the Council of 5 April 2006 on Waste.

"daily average" for releases of substances to air means the average of valid half-hourly averages over [a calendar day] [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.

"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 or background concentration limit**.**.

"groundwater protection zones 1 and 2" have the meaning given in the document titled "Groundwater Protection: Policy and Practice" published by the Environment Agency in 2006.

"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.

"incineration line" means all of the incineration equipment related to a common discharge to air location.

"ISO" means International Standards Organisation.

"large combustion plant" or "*LCP*" is a combustion plant or group of combustion plants discharging waste gases through a common windshield or stack, where the total thermal input is 50 MWth or more, based on gross calorific value.

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

"MCERTS" means the Environment Agency's Monitoring Certification Scheme.

"National Emission Reduction Plan" (NERP) is the plan issued by Defra in accordance with Article 4.6 of the Large Combustion Plants Directive and associated guidance.

"NERP Register" means the register maintained by the Environment Agency in accordance with regulation 6(1) of the Large Combustion Plants (National Emission Reduction Plan) Regulations 2007.

"operational hours" are whole hours commencing from the first unit ending start up and ending when the last unit commences shut down.

"*SI"* means site inspector

"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, Dibenzo[ah]anthracene, Dibenzo[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.

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

"R" means a recovery operation provided for in Annex IIB to Directive 2006/12/EC of the European Parliament and of the Council of 5 April 2006 on Waste.

"recovery" means any of the operations provided for in Annex IIB to Directive 2006/12/EC of the European Parliament and of the Council of 5 April 2006 on Waste.

"*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][waste fuel] 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].

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

"WID 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.

"WFD" means Waste Framework Directive (Directive 2006/12/EC of the European Parliament and of the Council of 5 April 2006 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:

(a) 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

(b) 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.

"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).]

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 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

(b) 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

(c) 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, *(Where the installation is a co-incineration plant)* in relation to gases from co-incineration plants the concentration in dry air at a temperature of 273K, at a pressure of 101.3 kPa and with an oxygen content of [??% dry]

(d) *(Where the installation is an incineration or co-incineration plant, and where hazardous wastes are burned on the installation and the emissions of pollutants are reduced by gas treatment)* where hazardous wastes are burned in an incineration or co-incineration plant and the emissions of pollutants are reduced by gas treatment, standardisation of the gas with respect to oxygen content shall be carried out only if the oxygen concentration measured over the same period exceeds the relevant oxygen content defined in conditions [(a) – (c)] above. In other cases, the measured emissions shall be standardised only for moisture, pressure and temperature.

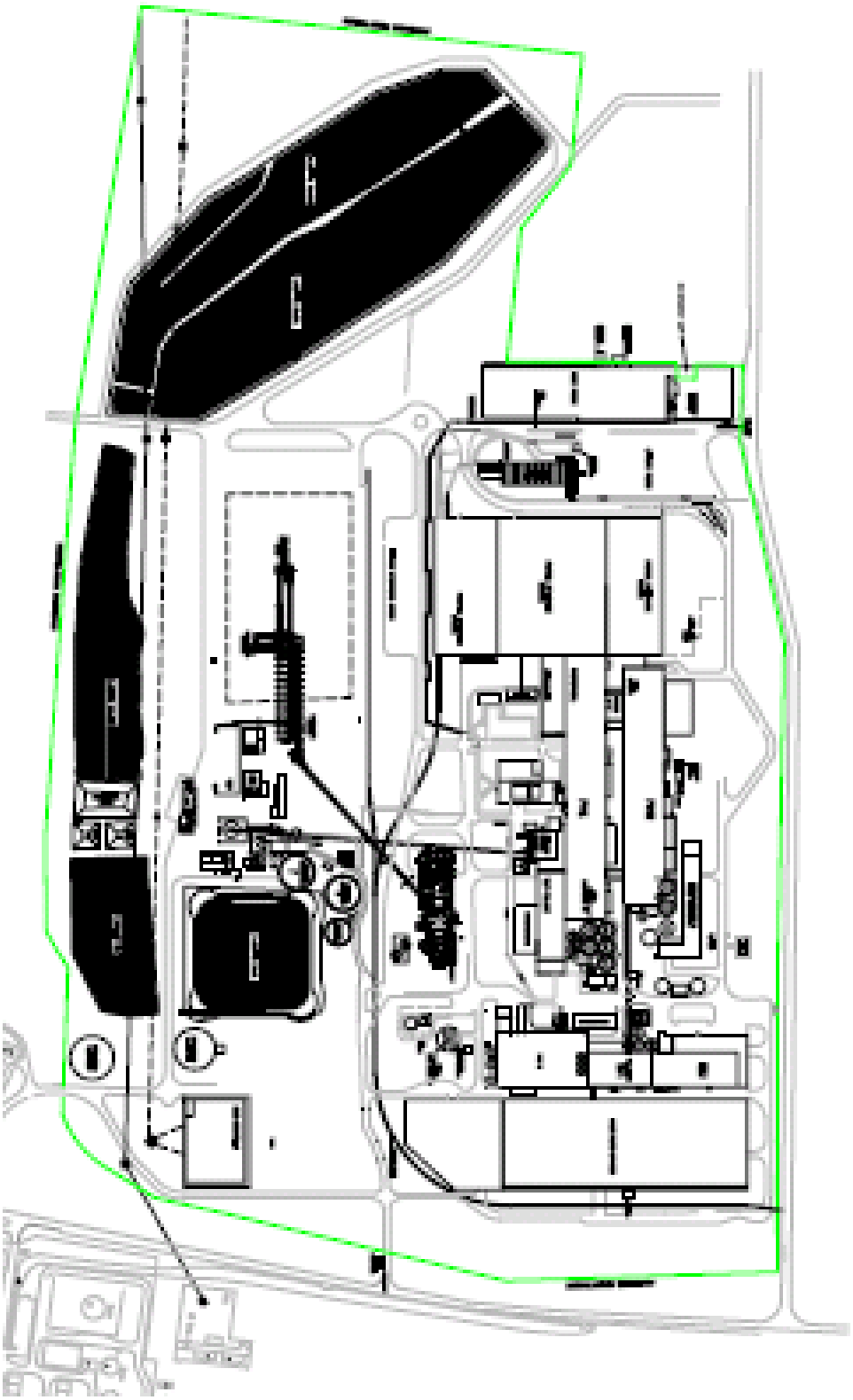
For dioxins/furans and dioxin-like PCBs the determination of the toxic equivalence concentration (I-TEQ, & WHO-TEQ for dioxins/furans, WHO-TEQ for dioxin-like PCBs) stated as a release limit and/ or reporting requirement, the mass concentrations of the following congeners have to be multiplied with their 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 then 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



Schedule 4 – amended plan

None